CALCULATING FORMAL GROUP LAWS

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Abstract. We calculate the formal group laws associated to complex cobordism (the universal formal group law), Brown-Peterson theory (the universal p-typical formal group law), the Johnson-Wilson theory $E(n)$ and its connective version which is the truncated Brown-Peterson theory $BP\langle n\rangle$, Morava E_n-theory (also known as Lubin-Tate theory), Morava $K(n)$-theory, the elliptic curve Hopf algebroid, and some specific supersingular elliptic curves. Formal group laws classified by the right unit map η_R in Hopf algebroids are also constructed, as they represent the most general change of coordinates.

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Date: September 25, 2005, 10:10pm.

1. Background and Notation

We assume that the reader has some knowledge of formal group laws. In particular, in the characteristic zero setting, every formal group law F has a logarithm $\log_F(x)$ which is a power series in $E^*[\![x]\!]$, and this logarithm has a composition inverse $\exp_F(x)$ that is also a power series in $E^*[\![x]\!]$. The formal group law F is $F(x,y) = \exp_F(\log_F(x) + \log_F(y))$, and the n-series is $[n]_F(x) = \exp_F(n \cdot \log_F(x))$, where $\cdot$ denotes ordinary multiplication. More details about formal group laws can be found in the references, particularly in the works of Hazewinkel and Ravenel. This paper is long enough as it is.

Remarks on notation: we will frequently use a capital letter such as T to denote a sequence of indeterminates $t_0, t_1, \ldots$ or perhaps $t_1, t_2, \ldots$.

2. Hand Waving (Intuition?)

A group is a collection of objects together with a law of addition. A formal group law will be like an addition law that (a priori) lacks a collection of objects to be made into a group. When a collection of objects is paired with a formal group law, a formal group results.

A formal law $F(x,y) = x +_F y$ over a ring (or a K-algebra) R is a power series in two variables in $R[\![x,y]\!]$ that satisfies the usual axioms for $+_F$ to be a law of addition for an unspecified monoid. It is easily checked that for any formal law there exists a unique power series $i(x) = i_F(x)$ such that $F(x, i(x)) = F(i(x), x) = 0$, and $i(x)$ defines the inverse law $-_F$. Thus, every formal law $F(x,y)$ is really a formal group law. The word formal is used because we do not know about convergence of the series (we do not concern ourselves with questions of convergence).

The intuition behind formal groups is illuminated by the following example. Every elliptic curve has an addition law, and the formal group law associated to an elliptic curve can be thought of as the Taylor series approximation to the addition in an elliptic curve near the identity element. This approximation may require an infinitesimal thickening of a neighborhood around the identity element.

If we choose a coordinate for an elliptic curve, then it's addition law can be expressed as a formal group law relative to this coordinate. Thus (waving hands), the category of formal groups and morphisms of formal groups is to the category of formal group laws and morphisms of formal group laws as the category of vector spaces and linear transformations is to the category of based vector spaces and matrices.

I encourage the reader to consult Ravenel's account of the similarities between formal group laws and one-dimensional commutative analytic Lie groups in chapter 1.3 of [Rav02].

3. Theory for universal formal group laws

There are many universal formal group laws, all of which are canonically isomorphic. Once we have found a universal formal group law, it will make sense to think of it as "the" universal formal group law.

There is an isomorphism $\varphi : \mathbb{Z}[U] \to MU_*$ such that $\varphi^* F_{MU}(x,y) = F_U(x,y)$, and this isomorphism is given by $\mathbb{Z}[U] \to MU^*$ as described in [Haz75, p.932].

3.1. The universal fgl $F_{MU}(x,y)$ over MU_*.

The logarithm for $F_{MU}(x,y)$ is

$$\log_{MU}(x) = \sum_{i \geq 0} \frac{[\mathbb{C}\mathrm{P}^i]}{i+1} x^{i+1} \in MU_* \otimes_{\mathbb{Z}} \mathbb{Q}[\![x]\!]$$

where $[\mathbb{C}\mathrm{P}^0] = 1$. The formal group law $F_{MU}(x,y)$ has coefficients in MU_*, but not in $L = \mathbb{Z}[U] = \mathbb{Z}[u_1, u_2, u_3, \ldots]$ as $F_U(x,y)$ does. That is, there are some fractions in $F_{MU}(x,y)$, and there are no fractions in $F_U(x,y)$ over $\mathbb{Z}[U]$.

References:

3.2. The universal fgl $F_U(x,y)$ over $\mathbb{Z}[U]$.

We now construct the formal group law $F_U(x,y)$ with a special choice of coefficients which are well-suited to topological applications and are very closely related to the coefficients in the Hazewinkel formal group laws $F_V(x,y)$ for every prime number p. We remark that Hazewinkel does construct more than one universal formal group law with the name $F_U(x,y)$, but the particular one we now construct was first constructed by Kozma, and then called "a special choice of coefficients" by Hazewinkel.

The formal group law $F_U(x,y) = f_U^{-1}(f_U(x) + f_U(y))$ over $\mathbb{Z}[U] = \mathbb{Z}[U_1, U_2, U_3, \ldots]$ where $U_1 = 1$ has logarithm

$$\log_U(x) = f_U(x) = \sum_{n=1}^{\infty} b_n(U) x^n$$

where the $b_n(U) = b_n$ are specified recursively by the formula

$$\nu(n) b_n(U) = U_n + \sum_{\substack{d|n \\ d \neq 1,n}} \frac{\mu(n,d)\nu(n)}{\nu(d)} b_{(\frac{n}{d})}(U) U_d^{(\frac{n}{d})}.$$

We remark that we can solve this equation either for b_n or for U_n. We now specify what the functions ν and μ are.

Let $\nu(n)$ be the greatest common divisor of the numbers $\binom{n}{i}$ for $0 < i < n$. Then by [Rav02, p.306, A2.1.11] the value of $\nu(n)$ is p if $n = p^r$ for some prime p and some $r \in \mathbb{Z}_{\geq 1} = \mathbb{N}$, and the value of $\nu(n)$ is 1 otherwise.

Let $c(p,d)$ be integers chosen to satisfy both

$$c(p,d) = 1, \text{ if } \nu(d) = 1 \text{ or } \nu(d) = p$$

and if $\nu(d) = q$ for some prime number q different from 1 and p we require

$$c(p,d) \equiv \begin{cases} 1 & \mod p, \text{ and} \\ 0 & \mod q. \end{cases}$$

That is, for a divisor d of n, if $\nu(d) = 1$ or p then $c(p,d) = 1$ is specified without any choices, and if $\nu(d) = q$ for some prime number q different from 1 and p then $c(p,d)$ may be chosen to be any multiple of q that is equivalent to 1 mod p, i.e. any element in the coset $c(p,d) + p\nu(d)\mathbb{Z}$ may be chosen as a representative for the value of $c(p,d)$. In practice, whenever there is a choice for the value of $c(p,d)$, we will choose the smallest positive integer that works. Different choices for the values of $c(p,d)$ will result in different universal formal group laws $F_U(x,y)$. The choices for values of the functions $c(p,d)$ correspond to different ways of gluing all of the p-typical formal group laws $F_V(x,y)$ together for all primes p to form a formal group law $F_U(x,y)$.

Once we have chosen and fixed values for $c(p,d)$ for all p and all d, use the $c(p,d)$ to define a function

$$\mu(n,d) = \prod_{p|n} c(p,d)$$

where the product is defined over all prime numbers p that divide n. We remark that the quantity

$$\frac{\mu(n,d)\nu(n)}{\nu(d)}$$

is always an integer (the justification is somewhere in Hazewinkel's paper or book, but I can't find it right now).

Thus, to construct $F_U(x,y)$, you first choose values for $c(p,d)$ for all primes p and all integers d, then you construct $f_U(x) = \log_U(x)$ and $F_U(x,y)$ using the formulas above.

We now explain the close relationship between $F_U(x,y)$ and $F_V(x,y)$. It is instructive to do the calculations for $b_n(U)$ by hand, because you will quickly realize that the coefficient of $x^{(p^n)}$ in $\log_U(x)$ is the same as the coefficient for $x^{(p^n)}$ in $log_V(x)$ under the change of variables $b_{(p^n)}(U) \mapsto a_n(V)$ and $b_i(U) \mapsto 0$ if $i \neq p^n$ for some n. That is, for every prime number p the coefficients of $x^{(p^n)}$ in $\log_U(x)$ for each n are precisely those coefficients for $\log_V(x)$ at that prime p, and the coefficients of x^r in $\log_U(x)$ for a composite number r are chosen in such a way that we can "glue" all of the $\log_V(x)$ together for all primes p to obtain a "cohesive" logarithm $\log_U(x)$ for a universal formal group law.

Since $F_U(x,y)$ and $F_{MU}(x,y)$ are both universal formal group laws over $\mathbb{Z}[U]$, there exist mutually inverse homomorphisms $\phi : \mathbb{Z}[U] \to MU_*$ and $\psi : MU_* \to \mathbb{Z}[U]$ such that $\phi_* \log_U(x) = \log_{MU}(x)$. Let u_i denote $\phi(U_i)$. Then the elements u_i in MU_* constitute a free polynomial basis for MU_* and are related to the $m_n = \frac{[\mathbb{C}P^n]}{n+1}$ by the formula

$$\nu(n)m_{n-1} = u_n + \sum_{\substack{d|n \\ d\neq 1,n}} \frac{\mu(n,d)\nu(n)}{\nu(d)} m_{(\frac{n}{d}-1)} u_d^{(\frac{n}{d})}.$$

That is, $\psi(m_{n-1}) = b_n(U)$ and $\phi(b_n(U)) = m_{n-1}$. These generators u_n are those given by Kozma.

References: [Haz78, p.3-4, §3.2], [Haz78, p.33, I.5.6], [Koz74]

3.3. **The fgl $F_{U,T}(x,y)$ over $\mathbb{Z}[U;T]$.** We now describe the formal group law over $\mathbb{Z}[U;T]$ classified by the ring homomorphism $\eta_R = r_t(pt) : \mathbb{Z}[U] \to \mathbb{Z}[U;T]$. The formal group law $F_{U,T}(x,y)$ is the "conjugate" formal group law $\chi(F_U(x,y))$ or equivalently the "right" formal group law $(\eta_R)_* F_U(x,y)$. Here η_R is the right unit in the Hopf algebroid $(\mathbb{Z}[U], \mathbb{Z}[U;T])$ over $\mathbb{Z}$ that is isomorphic to the Hopf algebroid (MU_*, MU_*MU) over $\mathbb{Z}$.

Let $f_U(x) = \log_U(x)$ be the logarithm of $F_U(x,y)$ over $\mathbb{Z}[U]$. Define

$$f_{U,T}(x) = \log_{U,T}(x) = \sum_{i=1}^{\infty} f_U(T_{i-1}X^i)$$

where $T_0 = 1$. Often $\log_{U,T}(x)$ is called $\mathrm{mog}(x)$. We set

$$F_{U,T}(x,y) = f_{U,T}^{-1}(f_{U,T}(x) + f_{U,T}(y)).$$

Let $\eta_L : \mathbb{Z}[U] \hookrightarrow \mathbb{Z}[U;T]$ be the canonical inclusion (that is, the left unit map for the Hopf algebroid). Define $\alpha_{U,T}(x) : (\eta_L)_* F_U(x,y) \to F_{U,T}(x,y)$ by

$$\alpha_{U,T}(x) = f_{U,T}^{-1}(f_U(x))$$

so that

$$\begin{aligned} \alpha_{U,T}^{-1}(x) &= f_U^{-1}(f_{U,T}(x)) \\ &= f_U^{-1}(f_U(T_0X) + f_U(T_1X^2) + \cdots) \\ &= \sum_{i=1}^{\infty} {}^{F_U}T_{i-1}X^i. \end{aligned}$$

Then $\alpha_{U,T}(x)$ is a universal strict isomorphism of formal group laws, by which we mean that if $(F(x,y), \alpha(x), G(x,y))$ is any triple consisting of two formal group laws $F(x,y)$ and $G(x,y)$ over a ring A together with a strict isomorphism $\alpha(x) : F(x,y) \to G(x,y)$ over A, then there exists a unique ring homomorphism $\phi : \mathbb{Z}[U;T] \to A$ such that $\phi_* F_U(x,y) = F(x,y)$ and $\phi_* F_{U,T}(x,y) = G(x,y)$ and $\phi_* \alpha_{U,T}(x) = \alpha(x)$. Thus, η_R (or equivalently $\alpha_{U,T}(x)$) describes the most general change of coordinates $u = (u_1, u_2, \ldots) \mapsto u' = (u'_1, u'_2, \ldots)$ for changing a formal group law $F_U(x,y)$ to a strictly isomorphic formal group law $F_{U'}(x,y)$.

Remarks: This is not the formula for $f_{U,T}(x)$ in [Haz78, p.448, 34.1.11]. I have intentionally chosen to shift Hazewinkel's grading on the T_i down by one to be more consistent with topological considerations, i.e. to have the dimension of T_i be $2i$. The choice is only notational.

References: [Haz78, p. 448, 34.1.11], [Haz78, p.164, 19.1.18]

4. Theory for p-typical formal group laws

Throughout this section, we will implicitly assume that we have chosen and fixed a prime p before proceeding with any constructions.

The basic idea is that there are three different generating sets for $BP_*(pt) = BP_*$ as an algebra. All of these generating sets are useful, and each generating has characteristics that are well-suited to some applications and not others. The first and most topological generating set consists of the classes $[\mathbb{C}P^{p^n-1}] \in BP_*$ for all $n \geq 0$. The second of these are the Araki generators w_n, which are in some sense the generators most compatible with the formal group law $F_{BP}(x,y)$ (see the theorem in this section). The third are the Hazewinkel generators v_n which allow the formal group law $F_{BP}(x,y)$ to be described as a formal group law $F_V(x,y)$ over $\mathbb{Z}[V]$ and not $\mathbb{Z}_{(p)}[V]$.

The Araki and Hazewinkel generators are congruent mod p [Rav02, p.316, A2.2.3], and so we may equally well work with either of the Araki or Hazewinkel generating sets if we have quotiented out by the ideal $I_1 = (p)$.

References:

4.1. **The universal p-typical fgl $F_{BP}(x,y)$ over BP_*.** Let us discuss p-typification. Let

$$\epsilon_p : MU\mathbb{Z}^*_{(p)}(-) \to MU\mathbb{Z}^*_{(p)}(-)$$

be Quillen's multiplicative and idempotent natural transformation whose image is represented by a ring spectrum BP. On homotopy, ϵ_p is determined by

$$\epsilon_p([\mathbb{C}\mathrm{P}^n]) = \begin{cases} [\mathbb{C}\mathrm{P}^n] & \text{if } n = p^i - 1 \text{ for some } i \\ 0 & \text{otherwise.} \end{cases}$$

This implies that the logarithm for $F_{BP} = F_{MU}^{p-typ} = (\epsilon_p)^* F_{MU}$ is given by

$$\log_{BP}(x) = x + \sum_{i\geq 1} \frac{[\mathbb{C}\mathrm{P}^{p^i-1}]}{p^i} x^{(p^i)} \in BP^* \otimes_{\mathbb{Z}_{(p)}} \mathbb{Q}[\![x]\!].$$

In the calculations below, we will use c_n to denote the class $[\mathbb{C}\mathrm{P}^n] \in BP^*$.

Since $F_{MU}(x,y)$ is a universal formal group law, $F_{BP}(x,y)$ is universal for formal group laws (over torsion-free $\mathbb{Z}_{(p)}$-algebras) whose logarithms involve only the $x^{(p^n)}$ and no other powers of x.

References: [Wür91, p.113], [Haz78, p.xx]

4.2. **The universal p-typical fgl $F_V(x,y)$ over $\mathbb{Z}[V]$.** The coefficient algebra for the universal p-typical formal group law $F_V(x,y)$ expressed in terms of the **Hazewinkel generators** V_i is the $\mathbb{Z}$-algebra

$$\mathbb{Z}[V] \stackrel{\text{def}}{=} \mathbb{Z}[V_1, V_2, V_3, \ldots].$$

Usually, we localize $\mathbb{Z}[V]$ at p to obtain a formal group law $F_V(x,y)$ with coefficients in the $\mathbb{Z}_{(p)}$-algebra $\mathbb{Z}_{(p)}[V]$.

Let $\lambda_n = m_{p^n-1} = \frac{[\mathbb{C}\mathrm{P}^{p^n-1}]}{p^n}$ and $\lambda_0 = 1$. We remark that Hazewinkel denotes λ_n by $a_n(V)$. The Hazewinkel generators v_n are the images of the V_n under the ring homomorphism $\mathbb{Z}_{(p)}[V] \to BP_*$ that is inverse to the homomorphism $BP_* \to \mathbb{Z}_{(p)}[V]$ that classifies the formal group law $F_V(x,y)$. The Hazewinkel generators v_i are related to the λ_i by the recursion formula [Rav02, p.315, A2.2.1]

$$\begin{aligned} p\lambda_n &= \textstyle\sum_{0\leq i<n} \lambda_i v_{n-i}^{(p^i)} \\ &= v_n + \textstyle\sum_{0<i<n} \lambda_i v_{n-i}^{(p^i)}. \end{aligned}$$

Using this formula, each λ_n can be expressed as a polynomial combination of the v_i, and the logarithm for $F_V(x,y)$ is

$$\begin{aligned} \log_V(x) &= \textstyle\sum_{i\geq 0} \lambda_i x^{(p^i)} \\ &= x + \lambda_1 x^p + \lambda_2 x^{(p^2)} + \cdots. \end{aligned}$$

We may also use the recursion formula above ([Rav02, p.315, A2.2.1]) to solve for the Hazewinkel generator v_n in terms of the λ_i, that is, as a polynomial combination of the classes $[\mathbb{C}\mathrm{P}^{p^i-1}]$ in BP_*. Rewriting the recursion formula we have

$$v_n = p\lambda_n - \sum_{0<i<n} \lambda_i v_{n-i}^{(p^i)}.$$

References: [Rav02, p.315, A2.2.1], [Haz78, p.18-19]

4.3. **The universal p-typical fgl $F_W(x,y)$ over $\mathbb{Z}_{(p)}[W]$.** The coefficient algebra for the universal p-typical formal group law $F_W(x,y)$ expressed in terms of the **Araki generators** w_i is the $\mathbb{Z}_{(p)}$-algebra

$$\mathbb{Z}_{(p)}[W] \stackrel{\text{def}}{=} \mathbb{Z}_{(p)}[w_1, w_2, w_3, \ldots].$$

The formal group law $F_W(x,y)$ is not defined over $\mathbb{Z}[W]$, unlike how $F_V(x,y)$ is defined over $\mathbb{Z}[V]$.

The construction of the Araki formal group law is analogous to that of the Hazewinkel formal group law. As above, let $\lambda_n = m_{p^n-1} = \frac{[\mathbb{C}\mathrm{P}^{p^n-1}]}{p^n}$ and $\lambda_0 = 1$. The Araki generators w_n are the images of the W_n under the ring homomorphism $\mathbb{Z}_{(p)}[W] \to BP_*$ that is inverse to the homomorphism $BP_* \to \mathbb{Z}_{(p)}[W]$ that classifies the formal group law $F_W(x,y)$. The Hazewinkel generators w_i are related to the λ_i by the recursion formula [Rav02, p.315, A2.2.2]

$$\begin{aligned} p\lambda_n &= \textstyle\sum_{0\leq i\leq n} \lambda_i w_{n-i}^{(p^i)} \\ &= w_n + \textstyle\sum_{0<i<n} \lambda_i w_{n-i}^{(p^i)} + \lambda_n p^{(p^n)} \end{aligned}$$

where $w_0 = p$. We may rewrite this as

$$\begin{aligned} (p - p^{(p^n)})\lambda_n &= \textstyle\sum_{0\leq i<n} \lambda_i w_{n-i}^{(p^i)} \\ &= w_n + \textstyle\sum_{0<i<n} \lambda_i w_{n-i}^{(p^i)}. \end{aligned}$$

Using this formula, each λ_n can be expressed as a polynomial combination of the w_i, and the logarithm for $F_W(x,y)$ is

$$\begin{aligned} \log_W(x) &= \textstyle\sum_{i\geq 0} \lambda_i x^{(p^i)} \\ &= x + \lambda_1 x^p + \lambda_2 x^{(p^2)} + \cdots. \end{aligned}$$

We may also use the recursion formula above ([Rav02, p.316, A2.2.2]) to solve for the Araki generator w_n in terms of the λ_i, that is, as a polynomial combination of the classes $[\mathbb{C}\mathrm{P}^{p^i-1}]$ in BP_*. Rewriting the recursion formula we have

$$w_n = (p - p^{(p^n)})\lambda_n - \sum_{0<i<n} \lambda_i w_{n-i}^{(p^i)}.$$

Theorem 1. [Ara73, p.56, Thm 6.5], [Wür91, p.113, Thm 1.2], [Rav02, p.316, A2.2.4] Let p be any prime. The Araki generators $w_i \in BP_{2(p^i-1)}$ are defined by satisfying the equation

$$[p]_{BP}(x) = \sum_{i\geq 0}{}^{F_{BP}} w_i x^{(p^i)}$$

where $w_0 = p$. Defining the w_i in this way, we obtain an isomorphism

$$BP_*(pt) \cong \mathbb{Z}_{(p)}[w_1, w_2, w_3, \ldots].$$

This theorem is essentially saying that the Araki generators w_i are defined in such a way that they are compatible with the formal group law $F_{BP}(x,y)$. From this theorem, it is easy to see that the formal group laws $F_{\Delta^n}(x,y)$ over $\mathbb{F}_p$ and $F_{K(n)}(x,y)$ over $K(n)_*$ have height n by considering the homomorphisms $w_i \mapsto \delta_{in}$ and $w_i \mapsto w_i\delta_{in}$ that classify them (here δ_{in} is the Kronecker δ). Also, this theorem is used to show that the w_i are actually elements of $\mathbb{Z}_{(p)}[W]$, i.e. it's used to show that the w_i are actually p-integral polynomials.

Remarks: In the theorem in this section, Würgler claims that the w_i are chosen to be the coefficients of $x^{(p^i)}$ in the series $[p]_{BP}(x)$, but this is not correct. The w_i are only a part of the coefficient of $x^{(p^i)}$ in the series $[p]_{BP}(x)$.

References: [Rav02, p.316, A2.2.2]

4.4. **The p-typical fgl $F_{BP,T}(x,y)$ over $BP_*BP \cong BP_*[T]$.** Because of the isomorphism $BP_*BP \cong BP_*[T]$ we call this formal group law $F_{BP,T}(x,y)$. We now describe the formal group law over BP_*BP classified by the ring homomorphism $\eta_R = r_t(pt) : BP_* \to BP_*BP$. The formal group law $F_{BP,T}(x,y)$ is the "conjugate" formal group law $\chi(F_{BP}(x,y))$ or equivalently the "right" formal group law $(\eta_R)_*F_{BP}(x,y)$. Here η_R is the right unit in the Hopf algebroid (BP_*, BP_*BP). Let $\eta_L : BP_* \hookrightarrow BP_*BP$ be the canonical inclusion (that is, the left unit map for the Hopf algebroid).

The value of $\eta_R : BP_* \to BP_*BP$ on $\lambda_i = [\mathbb{C}\mathrm{P}^{p^i-1}]/p^i$ in BP_* is

$$\eta_R(\lambda_i) = \sum_{0\le j\le i} \lambda_j T_{i-j}^{p^j}$$

where $\lambda_0 = 1$ and $T_0 = 1$ by [Rav02, p.111, 4.1.18 d]. The logarithm for $F_{BP,T}(x,y)$ is

$$\begin{aligned}\log_{BP,T}(x) &= (\eta_R)_* \log_{BP}(x)\\ &= \textstyle\sum_{i=1}^{\infty} \eta_R(\lambda_i) x^{(p^i)}\\ &= \textstyle\sum_{i=1}^{\infty} (\sum_{0\le j\le i} \lambda_j T_{i-j}^{p^j}) x^{(p^i)}\\ &= \textstyle\sum_{i,j\ge 0} \lambda_i T_j^{p^i} x^{p^{i+j}}\end{aligned}$$

by [Rav02, p.123], and the formal group law is

$$F_{BP,T}(x,y) = \log_{BP,T}^{-1}(\log_{BP,T}(x) + \log_{BP,T}(y)).$$

Define $\alpha_{BP,T}(x) : (\eta_L)_*F_{BP}(x,y) \to F_{BP,T}(x,y)$ by

$$\alpha_{BP,T}(x) = \log_{BP,T}^{-1}(\log_{BP}(x)).$$

Then $\alpha_{BP,T}(x)$ is a universal strict isomorphism of p-typical formal group laws, by which we mean that if $(F(x,y), \alpha(x), G(x,y))$ is any triple consisting of two p-typical formal group laws $F(x,y)$ and $G(x,y)$ over a ring A together with a strict isomorphism $\alpha(x) : F(x,y) \to G(x,y)$ over A, then there exists a unique ring homomorphism $\phi : BP_*[T] \to A$ such that $\phi_*F_{BP}(x,y) = F(x,y)$ and $\phi_*F_{BP,T}(x,y) = G(x,y)$ and $\phi_*\alpha_{BP,T}(x) = \alpha(x)$.

References: [Rav02, p.123], [Rav02, p.111, 4.1.8 d], [Haz78, p. 448-449, 34.1.11], [Haz78, p.164, 19.1.18]

4.5. **The p-typical fgl $F_{V,T}(x,y)$ over $\mathbb{Z}[V;T]$.** The coefficient algebra for the p-typical formal group law $F_{V,T}(x,y)$ expressed in terms of the **Hazewinkel generators** V_i is the $\mathbb{Z}$-algebra

$$\mathbb{Z}[V;T] \stackrel{\text{def}}{=} \mathbb{Z}[V_1, V_2, V_3, \ldots; T_1, T_2, T_3, \ldots].$$

The logarithm for the formal group law $F_{V,T}(x,y)$ is obtained from the logarithm for $F_{BP,T}(x,y)$ by expressing each λ_n in terms of the Hazewinkel generators V_i. Let us set up some notation. Let $\lambda_i = [\mathbb{C}\mathrm{P}^{p^i-1}]/p^i = a_i(V)$ be the coefficient of $x^{(p^i)}$ in $\log_V(x)$. Let $\mu_i = \eta_R(\lambda_i) = \eta_R(a_i(V)) = a_i(V,T)$ be the coefficient of $x^{(p^i)}$ in the modified logarithm $\log_{V,T}(x) = \mathrm{mog}_V(x) = (\eta_R)_* \log_V(x)$. (We apologize for the excessive notation, but it may be useful for consulting the references listed.) Then by the definition of the Hazewinkel generators ([Rav02, p.315, A2.2.1] or [Haz78, p.167, 19.3.2]) we have

$$p\lambda_n = v_n + \sum_{0<i<n} \lambda_i v_{n-i}^{(p^i)}.$$

Also, by [Rav02, p.111, Thm 4.1.8 d] or [Haz78, p.167, 19.3.3] we have

$$\begin{aligned}\mu_n &= \eta_R(\lambda_n) = \eta_R(a_i(V)) = a_n(V,T)\\ &= \textstyle\sum_{0\le i\le n} \lambda_i t_{n-i}^{(p^i)}.\end{aligned}$$

Then by using the equation that defines the Hazewinkel generators to express each λ_n in terms of the v_i, we have that the logarithm for $F_{V,T}(x,y)$ is

$$\log_{V,T}(x) = \mathrm{mog}_V(x) = \sum_{i=1}^{\infty} \mu_i x^{(p^i)}$$

and the formal group law is constructed in the usual way.

We now remark on how to calculate $\eta_R(v_n)$. Rewrite the equation [Rav02, p.315, A2.2.1] that defines the Hazewinkel generators as

$$v_n = p\lambda_n - \sum_{0<i<n} \lambda_i v_{n-i}^{(p^i)}$$

so that it is possible to solve for v_n in terms of the λ_i. Apply η_R to this equation to obtain

$$\eta_R(v_n) = p\eta_R(\lambda_n) - \sum_{0<i<n} \eta_R(\lambda_i)\eta_R(v_{n-i})^{(p^i)}$$

and then use [Rav02, p.111, Them 4.1.8 d]

$$\eta_R(\lambda_i) = a_i(V,T) = \sum_{0\le j\le i} \lambda_j t_{i-j}^{(p^j)}$$

to solve for $\eta_R(v_n)$ recursively.

References: [Haz78, p.167-8, (19.3.2 & 19.3.3 & 19.3.4)], [Haz78, p.458 (34.5.4)], [Haz77a, p.133 (2.2.5), p.136 (4.1.1), p. 138 (4.3.1 & 4.3.2)].

4.6. **The p-typical fgl $F_{W,T}(x,y)$ over $\mathbb{Z}_{(p)}[W;T]$.** The coefficient algebra for the p-typical formal group law $F_{W,T}(x,y)$ expressed in terms of the **Araki generators** W_i is the $\mathbb{Z}_{(p)}$-algebra

$$\mathbb{Z}_{(p)}[W;T] \stackrel{\text{def}}{=} \mathbb{Z}_{(p)}[W_1, W_2, W_3, \ldots; T_1, T_2, T_3, \ldots].$$

The logarithm for the formal group law $F_{W,T}(x,y)$ is obtained from the logarithm for $F_{BP,T}(x,y)$ by expressing each λ_n in terms of the Araki generators w_i. Let us set up some notation. Let $\lambda_i = [\mathbb{C}\mathrm{P}^{p^i-1}]/p^i = a_i(W)$ be the coefficient of $x^{(p^i)}$ in $\log_W(x)$. Let $\mu_i = \eta_R(\lambda_i) = \eta_R(a_i(W)) = a_i(W,T)$ be the coefficient of $x^{(p^i)}$ in the modified logarithm $\log_{W,T}(x) = \mathrm{mog}_W(x) = (\eta_R)_* \log_W(x)$. (We apologize for the excessive notation, but it may be useful for consulting the references listed.) Then by the definition of the Araki generators ([Rav02, p.316, A2.2.2], [Ara73, p.56, 6.12]) we have

$$(p - p^{(p^n)})\lambda_n = w_n + \sum_{0<i<n} \lambda_i w_{n-i}^{(p^i)}.$$

Also, by [Rav02, p.111, Thm 4.1.8 d] we have

$$\begin{aligned} \mu_n &= \eta_R(\lambda_n) = \eta_R(a_i(W)) = a_n(W,T) \\ &= \textstyle\sum_{0\le i\le n} \lambda_i t_{n-i}^{(p^i)}. \end{aligned}$$

Then by using the equation that defines the Araki generators to express each λ_n in terms of the w_i, we have that the logarithm for $F_{W,T}(x,y)$ is

$$\log_{W,T}(x) = \mathrm{mog}_W(x) = \sum_{i=1}^{\infty} \mu_i x^{(p^i)}$$

and the formal group law is constructed in the usual way.

We now remark on how to calculate $\eta_R(w_n)$. Rewrite the equation [Rav02, p.316, A2.2.2] that defines the Araki generators as

$$w_n = (p - p^{(p^n)})\lambda_n - \sum_{0<i<n} \lambda_i w_{n-i}^{(p^i)}$$

so that it is possible to solve for w_n in terms of the λ_i. Apply η_R to this equation to obtain

$$\eta_R(w_n) = (p - p^{(p^n)})\eta_R(\lambda_n) - \sum_{0<i<n} \eta_R(\lambda_i)\eta_R(w_{n-i})^{(p^i)}$$

and then use [Rav02, p.111, Them 4.1.8 d]

$$\eta_R(\lambda_i) = a_i(W,T) = \sum_{0\le j\le i} \lambda_j t_{i-j}^{(p^j)}$$

to solve for $\eta_R(w_n)$ recursively.

You can check the results of your computation of $\eta_R(w_1)$ and $\eta_R(w_2)$ at $p = 2$ against those of [Rav02, p.157, 5.2.4].

References: [Rav02, p.316, A2.2.2], [Ara73, p.56, 6.12]

4.7. **The p-typical fgl $F_{BP\langle n\rangle}(x,y)$ over $\mathbb{Z}_{(p)}[w_1, w_2, \ldots, w_n] = BP\langle n\rangle$.** Let

$$BP\langle n\rangle_* = BP_*/(w_{n+1}, w_{n+2}, \ldots) \cong \mathbb{Z}_{(p)}[w_1, w_2, \ldots, w_n]$$

as in [Rav02, p.113] and let

$$E(n)_* = \mathbb{Z}_{(p)}[w_1, w_2, \ldots, w_n, \tfrac{1}{w_n}].$$

Then, using the Landweber exact functor theorem, $BP_*(-) \otimes_{BP_*} BP\langle n\rangle_*$ is the connective version of $BP_*(-) \otimes_{BP_*} E(n)_*$. The formal group laws $F_{BP\langle n\rangle}(x,y)$ and $F_{E(n)}(x,y)$ over $BP\langle n\rangle_* \subset E(n)_*$ are classified by the canonical $\mathbb{Z}_{(p)}$-algebra homomorphisms $BP_* \to BP_*/(w_{n+1}, w_{n+2}, \ldots) = BP\langle n\rangle_*$ and $BP_* \to BP\langle n\rangle_* \hookrightarrow E(n)_*$, both of which are given in terms of the Araki generators w_i by

$$w_i \mapsto \begin{cases} w_i & 0 \le i \le n \\ 0 & i > n. \end{cases}$$

That is, the formal group laws $F_{BP\langle n\rangle}(x,y)$ and $F_{E(n)}$ are the same formal group law, and are obtained from $F_W(x,y)$ by setting $w_i = 0$ for $i > n$.

4.8. **The p-typical fgl $F_{E_n}(x,y)$ over $\mathbb{Z}_p[\![u_1, u_2, \ldots, u_{n-1}]\!][u, \frac{1}{u}] \subset E_n^*$.** Let E_n denote Lubin and Tate's ring

$$E_n = \mathbb{Z}_p[\![u_1, u_2, \ldots, u_{n-1}]\!]$$

that represents the functor of lifts of the (Honda) height n formal group law $F_{\Delta^n}(x,y)$ whose p-series $[p]_{\Delta^n}(x) = x^{(p^n)}$ has only one term [And95, p.436+, §2.3]. More specifically, Lubin and Tate assert that there exists a (by no means unique) "universal"-type of formal group law F over E_n that makes the following theorem hold.

Theorem 2. [And95, p.437, Thm 2.3.1] Suppose $\mathscr{G}$ is the collection of formal group laws over a $\mathbb{Z}_p$-algebra R such that (1) for each formal group law $G(x,y)$ in $\mathscr{G}$, the formal group law obtained from $G(x,y)$ by reducing its coefficients to $\mathbb{F}_p$ is the formal group law $F_{\Delta^n}(x,y)$ — in which case we say $G(x,y)$ is a lift of $F_{\Delta^n}(x,y)$ to R — and (2) $\mathscr{G}$ is closed under taking $*$-isomorphisms (see Ando's paper for the definition of star-isomorphism). (We can paraphrase this by saying that $\mathscr{G}$ is a $*$-isomorphism class of lifts of $F_{\Delta^n}(x,y)$ to R.) Then there is a unique homomorphism of local rings $\phi : E_n \to R$ such that $\phi_* F = G$ for some $G \in \mathscr{G}$. Moreover, for any other $G' \in \mathscr{G}$, the $*$-isomorphism

$$\alpha(x) : G'(x,y) \to G(x,y) = \phi_* F(x,y)$$

is uniquely determined by F and G'.

Basically, Lubin and Tate's theorem asserts the existence of a (by no means unique) "universal"-type of formal group law $F(x,y)$ that maps to every $*$-isomorphism class $\mathscr{G}$ of lifts in a unique way, and whose image in a $*$-isomorphism class of lifts is isomorphic to each of the formal group laws in the $*$-isomorphism class $\mathscr{G}$ by a unique $*$-isomorphism.

We now describe one possible universal lift of $F_{\Delta^n}(x,y)$ to $F_{E_n}(x,y)$ from a formal group law over F_p to a formal group law over E_n. We also describe the graded version of this formal group law $F_{E_n^*}(x,y)$ that is the formal group law induced by the cohomology theory $E_n^*(-) = BP^*(-) \otimes_{BP^*} E_n^*$ that is called Morava E-theory or Lubin-Tate theory.

Let A_n^* be the graded ring

$$A_n^* = \mathbb{Z}_p[\![u_1, u_2, \ldots, u_{n-1}]\!][u, \tfrac{1}{u}]$$

where $|u_i| = 0$ and $|u| = -2$. (Remark: These u_i are not the same as those in the universal formal group law $F_U(x,y)$.) Let E_n^* be the graded ring

$$\begin{aligned} E_n^* &= \mathbb{Z}_p[\zeta_n][\![u_1, u_2, \ldots, u_{n-1}]\!][u, \tfrac{1}{u}] \\ &\cong W(\mathbb{F}_{p^n})[\![u_1, u_2, \ldots, u_{n-1}]\!][u, \tfrac{1}{u}] \end{aligned}$$

where ζ_n is a primitive root of $x^{(p^n)} - x$ and W is the Witt-vector functor (see [Rav02, p.320+]). Consider $A_n^* \hookrightarrow E_n^*$ via the canonical inclusion. Then the formal group law associated to the Landweber exact cohomology theory

$$E_n^*(-) = BP^*(-) \otimes_{BP^*} E_n^*$$

is classified by a $\mathbb{Z}_{(p)}$-algebra homomorphism $BP^* \to E_n^*$ given in terms of the Araki generators w_i by

$$w_i \mapsto \begin{cases} u_i u^{(p^i)} & 0 \le i < n \\ 1u^{(p^n)} & i = n \\ 0 & i > n. \end{cases}$$

One possible universal formal group law $F_{E_n}(x,y)$ over E_n is given by the composite $BP^* \to E_n^* \to E_n$ given by $u \mapsto 1$, that is, in terms of the Araki generators w_i it is

$$w_i \mapsto \begin{cases} u_i & 0 \le i < n \\ 1 & i = n \\ 0 & i > n. \end{cases}$$

The relationship between $F_{E_n}(x,y)$ and $F_{E_n^*}(x,y)$ is clear: $F_{E_n}(x,y)$ is the ungraded version of the formal group law, and $F_{E_n^*}(x,y)$ is the graded version. We remark that if you view $A^*(-)$ as a cohomology theory via the Landweber exact functor theorem, then by definition $A_n^0(X) = E_n(X)$.

Remarks: The precise relationship between the ungraded and the graded version is given in [DH95, §1,p.673]

References: [And95, p.453-454, §3.1], [And95, p.436-438, §2.3]

4.9. **The p-typical fgl $F_{K(n)}(x,y)$ over $\mathbb{F}_p[v_n, \frac{1}{v_n}] = K(n)_*$.** We first discuss the ungraded version of $F_{K(n)}(x,y)$. The ungraded formal group law is called $F_{\Delta^n}(x,y)$ in [Haz78, p.17, p.19 (3.3.11)], and it is sometimes called the Honda height n formal group law over $\mathbb{F}_p$ [? GHMR ?].

$$log_{\Delta^n}(x) = \sum_{i \ge 0} \frac{x^{(p^{ni})}}{p^i} = x + \frac{x^{(p^n)}}{p} + \frac{x^{(p^{2n})}}{p^2} + \cdots .$$

The formal group law $F_{\Delta^n}(x,y)$ is classified by the homomorphism $f_{\Delta^n} : \mathbb{Z}[V] \to \mathbb{Z}$ given by [Haz78, p.19]

$$f_{\Delta^n}(v_i) = \begin{cases} 1 & i = n, \\ 0 & \text{otherwise.} \end{cases}$$

We can consider the formal group law over $\mathbb{F}_p$ defined by the composite $\mathbb{Z}[V] \to \mathbb{Z} \to \mathbb{Z}/(p)$, or we could consider $\mathbb{Z}_{(p)}[V] \to \mathbb{Z}_{(p)}$ or $\mathbb{Z}_{(p)}[V] \to \mathbb{Z}_{(p)} \to \mathbb{Z}/(p)$ which classify formal group laws over $\mathbb{Z}_{(p)}$ and $\mathbb{Z}/(p)$.

The coefficient algebra for the graded p-typical formal group law $F_{K(n)}(x,y)$ is the $\mathbb{Z}_{(p)}$-algebra

$$K(n)_* \stackrel{\text{def}}{=} \mathbb{F}_p[v_n, \frac{1}{v_n}]$$

where v_n is a generator of degree $2(p^n - 1)$. (Provided $n \neq 0$, we may take v_n to be either the Araki generator w_n or the Hazewinkel generator v_n since there is really no difference when working mod p — see remarks section below.) The logarithm for the graded formal group law $F_{K(n)}(x,y)$ is obtained from the ungraded version $F_{\Delta^n}(x,y)$ by finding appropriate powers $k = k(i)$ of v_n for the logarithm

$$\log_{K(n)}(x) = \sum_{i \ge 0} \frac{{v_n}^{k(i)} x^{(p^{ni})}}{p^i}$$

so that $\log_{K(n)}(x)$ becomes homogeneous of degree -2 (recall that $|x| = -2$). Straightforward calculation shows that the function k is $k(i) = (p^{ni} - 1)/(p^n - 1) = 1 + p^n + p^{2n} + \cdots + p^{in}$.

The formal group law $F_{K(n)}(x,y)$ is classified by the homomorphism $f_{K(n)} : \mathbb{Z}[V] \to \mathbb{Z}[v_n]$ given by

$$f_{K(n)}(v_i) = \begin{cases} v_n & i = n, \\ 0 & \text{otherwise.} \end{cases}$$

We can consider the formal group law over $\mathbb{F}_p$ defined by the composite $\mathbb{Z}[V] \to \mathbb{Z}[v_n] \to \mathbb{Z}/(p)[v_n]$, or we could consider $\mathbb{Z}_{(p)}[V] \to \mathbb{Z}_{(p)}[v_n]$ or $\mathbb{Z}_{(p)}[V] \to \mathbb{Z}_{(p)}[v_n] \to \mathbb{Z}/(p)[v_n]$ which classify formal group laws over $\mathbb{Z}_{(p)}[v_n]$ and $\mathbb{Z}/(p)[v_n]$.

Remarks: The graded formal group law $F_{K(n)}$ is the same as that in [Haz78, p.xix], where our notation $\log_{K(n)}(x)$, v_n, and n corresponds to $f(x)$, T, and h in [Haz78].

Provided that $n \neq 0$ (that is, we stay away from the case when $K(0) = H\mathbb{Q}$), we can take v_n to be either the Araki or the Hazewinkel generator, since the Araki and Hazewinkel generators are congruent mod p and we are working mod p in the coefficient ring $K(n)_* = \mathbb{F}_p[v_n, \frac{1}{v_n}]$.

References: [Haz78, p.xix].

5. Theory for formal group laws of elliptic curves

5.1. **Weierstrass parameters a_i and the coordinate $z = -\frac{x}{y}$.** Every elliptic curve is isomorphic to an elliptic curve $C_{\vec{a}}$ with a Weierstrass equation

$$y^2 + a_1xy + a_3y = x^3 + a_2x^2 + a_4x + a_6.$$

Let $z = -\frac{x}{y}$ be a parameter for the elliptic curve around its origin. Then by the change of variables $z = -\frac{x}{y}$ and $w = -\frac{1}{y}$ (or equivalently $x = \frac{z}{w}$ and $y = -\frac{1}{w}$) we may express the Weierstrass equation as

$$w = z^3 + a_1zw + a_2z^2w + a_3w^2 + a_4zw^2 + a_6w^3.$$

Using recursive substitution of this equation into itself, we may develop w locally as a power series $w(z)$ in the parameter z, and hence also be able to express x and y as power series $x(z) = z/w(z)$ and $y(z) = -1/w(z)$ in the parameter z. Thus, we may express the invariant differential

$$\eta_{\vec{a}} = \frac{dx}{2y + a_1x + a_3}$$

associated to the elliptic curve as

$$\eta_{\vec{a}}(z) = \frac{dx(z)/dz}{2y(z) + a_1x(z) + a_3}.$$

Then the logarithm of the formal group law associated to $C_{\vec{a}}$ is

$$\log_{C_{\vec{a}}}(t) = \int \eta_{\vec{a}}(t)$$

obtained by termwise integration of the power series $\eta_{\vec{a}}(t)$.

Remarks: Silverman's account of this procedure is a bit different. In particular, if you want to carry out the procedure described in [Sil99, p.110-115], you must use

$$z_3 = z_3(z_1, z_2) = -z_1 - z_2 - \frac{a_1\lambda + a_3\lambda^2 + a_2\nu + 2a_4\lambda\nu + 3a_6\lambda^2\nu}{1 + a_2\lambda + a_4\lambda^2 + a_6\lambda^3}$$

for the quantity z_3 on page 114 if you want to get the correct formal group law. For a proof that this is the correct value of z_3, see [Blu98, p.491, eq 4.6] or [Blu97, eq 2.3].

Husemoller also attempts to describe how to obtain the formal group law associated to an elliptic curve in his book on elliptic curves, but his account is largely incorrect and should not be used under any circumstances.

References: [Sil99, p.110-115]

5.2. **The Weierstrass parameters a_i and the coordinate $z = \frac{x}{y}$.** Every elliptic curve is isomorphic to an elliptic curve $C_{\vec{a}}$ with a Weierstrass equation

$$y^2 + a_1xy + a_3y = x^3 + a_2x^2 + a_4x + a_6.$$

Let $z = \frac{x}{y}$ be a parameter for the elliptic curve around its origin. Then by the change of variables $z = \frac{x}{y}$ and $w = \frac{1}{y}$ (or equivalently $x = \frac{z}{w}$ and $y = \frac{1}{w}$) we may express the Weierstrass equation as

$$w = z^3 - a_1zw + a_2z^2w - a_3w^2 + a_4zw^2 + a_6w^3.$$

Using recursive substitution of this equation into itself, we may develop w locally as a power series $w(z)$ in the parameter z, and hence also be able to express x and y as power series $x(z) = z/w(z)$ and $y(z) = 1/w(z)$ in the parameter z. Thus, we may find an invariant differential

$$\eta_{\vec{a}} = \frac{dx}{2y + a_1x + a_3}$$

associated to the elliptic curve by taking

$$\eta_{\vec{a}}(z) = \frac{dx(z)/dz}{2y(z) + a_1x(z) + a_3}.$$

This invariant differential has constant term -1, so if we integrate it to find the logarithm the degree 1 part log will $-x$, which cannot happen since this would mean that the formal group law would look like $F(x, y) = -x - y + O(2)$. Thus, we normalize this invariant differential by multiplying it by -1, so that its degree zero part is 1. By [Sil99, p.119], for each formal group law, there exists a unique normalized invariant differential given by $F_z(0, z)^{-1}dz$, and all other invariant differentials are a scalar multiple of the normalized one for some element of the coefficient ring.

The logarithm of the formal group law associated to $C_{\vec{a}}$ is

$$\log_{C_{\vec{a}}}(t) = \int \eta_{\vec{a}}(t)$$

obtained by termwise integration of the power series $\eta_{\vec{a}}(t)$.

References: [Sil99, p.110-115]

5.3. **Weierstrass parameters b_i and the coordinate $z = -\frac{x}{y}$.** Given a Weierstrass equation $C_{\vec{a}}$ over a ring A in which 2 is invertible, there is a canonical form for the Weierstrass equation

$$C_{\vec{b}}: \quad Y^2 = x^3 + \tfrac{1}{4}b_2x^2 + \tfrac{1}{2}b_4x + \tfrac{1}{4}b_6$$

obtained from the Weierstrass equation in the a_i by the substitution $y = Y - \frac{1}{2}(a_1x + a_3)$. Equivalently, we could make the substitution $y = \frac{1}{2}(Y - a_1x - a_3)$ to obtain the "Weierstrass equation"

$$Y^2 = 4x^3 + b_2x^2 + 2b_4x + b_6.$$

The b_i are related to the a_i by

$$\begin{aligned} b_2 &= 4a_2 + a_1^2 \\ b_4 &= 2a_4 + a_1a_3 \\ b_6 &= 4a_6 + a_3^2. \end{aligned}$$

It is also useful to view this change of coordinates as a map
$f : \mathbb{Z}_{(3)}[a_1, a_2, a_3, a_4, a_6] \to \mathbb{Z}_{(3)}[b_2, b_4, b_6]$ defined by

$$\begin{aligned} a_1 &\mapsto 0 \\ a_2 &\mapsto b_2/4 \\ a_3 &\mapsto 0 \\ a_4 &\mapsto b_4/2 \\ a_6 &\mapsto b_6/4, \end{aligned}$$

where we could replace $\mathbb{Z}_{(3)}$ by $\mathbb{Z}_{(p)}$ for any $p > 2$ or by $\mathbb{F}_p$ or $\mathbb{F}_{p^n}$ for any $p > 2$.

We require 2 to be invertible in A so that these substitutions are possible. For example, these substitutions are possible when the elliptic curve is defined over a field of characteristic $p > 2$ or a $\mathbb{Z}_{(p)}$-algebra for any prime $p > 2$. Primarily, this Weierstrass equation will be most useful when $p = 3$, since there is another variable substitution that will allow us to simplify the Weierstrass equation even more when $p > 3$.

To calculate the formal group law associated to $C_{\vec{b}}$, we simply apply the same method described in the section "Weierstrass parameters a_i and the coordinate $z = -\frac{x}{y}$" to the Weierstrass equation for $C_{\vec{b}}$.

5.4. **Weierstrass parameters c_i and the coordinate $z = -\frac{x}{y}$.** If $\frac{1}{6} \in A$, then we may make the variable substitution $x = X - \frac{1}{12}b_2$ into $C_{\vec{b}}$ to obtain the Weierstrass equation

$$C_{\vec{c}} : \quad Y^2 = X^3 - \frac{1}{48}c_4 X - \frac{1}{864}c_6$$

where

$$\begin{aligned} c_4 &= b_2^2 - 24b_4 \\ c_6 &= -b_2^3 + 36b_2b_4 - 216b_6. \end{aligned}$$

Equivalently, if $\frac{1}{6} \in A$, then we may make the variable substitution

$$\begin{aligned} x &= X - \tfrac{1}{3}a_2 - \tfrac{1}{12}a_1^2 \\ y &= Y - \tfrac{1}{2}a_1 X + \tfrac{1}{24}a_1^3 + \tfrac{1}{6}a_1a_2 - \tfrac{1}{2}a_3 \end{aligned}$$

into $C_{\vec{a}}$ to obtain the Weierstrass equation $C_{\vec{c}}$ above.

It is also useful to view this change of coordinates as a map
$f : \mathbb{Z}[\frac{1}{6}][a_1, a_2, a_3, a_4, a_6] \to \mathbb{Z}[\frac{1}{6}][c_4, c_6]$ defined by

$$\begin{aligned} a_1 &\mapsto 0 \\ a_2 &\mapsto 0 \\ a_3 &\mapsto 0 \\ a_4 &\mapsto -c_4/48 \\ a_6 &\mapsto -c_6/864, \end{aligned}$$

where we could replace $\mathbb{Z}[\frac{1}{6}]$ by $\mathbb{Z}_{(p)}$ for any $p > 3$ or by $\mathbb{F}_p$ or $\mathbb{F}_{p^n}$ for any $p > 3$.

To calculate the formal group law associated to $C_{\vec{c}}$, we simply apply the same method described in the section "Weierstrass parameters a_i and the coordinate $z = -\frac{x}{y}$" to the Weierstrass equation for $C_{\vec{c}}$.

References: [Rez, p.28-29], [Rez, p.33], [Rez, p.42]

6.1. $F_{MU}(x, y)$ **over** MU_***.** We use c_n to denote $[\mathbb{C}\mathrm{P}^n] \in MU^*$.

```
> restart: with(powseries):
> MU:=proc(d) # \leq d is the total degree
> local f_MU,logMU,expMU,e_MU,F_MU,t,c;
> # c_j is [CP^j]
> c[0]:=1:
> f_MU:=x->sum(c[i]*x^(i+1)/(i+1),i=0..d+2);
> print(f_MU(x));
> latex(f_MU(x));
> logMU:=powpoly(f_MU(x),x);
> expMU:=reversion(logMU);
> e_MU:=x->convert(simplify(tpsform(expMU,x,d+1)),
  polynom);
> print(e_MU(x));
> latex(e_MU(x));
> F_MU:=(x,y)->sort(simplify(mtaylor(subs(
  z=f_MU(x)+f_MU(y),e_MU(z)),[x,y],d+1)), [x,y]);
> print(F_MU(x,y));
> latex(F_MU(x,y));
> end proc:
> MU(10);
```

The results of these computations are that logarithm $\log_{MU}(x)$ equals

$$x + 1/2\,c_1x^2 + 1/3\,c_2x^3 + 1/4\,c_3x^4 + 1/5\,c_4x^5 + 1/6\,c_5x^6 + 1/7\,c_6x^7 + 1/8\,c_7x^8 + 1/9\,c_8x^9 + 1/10\,c_9x^{10} + 1/11\,c_{10}x^{11} + 1/12\,c_{11}x^{12} + 1/13\,c_{12}x^{13}$$

The formal group law $F_{MU}(x, y)$ equals

$$x + y$$

$$-c_1xy$$

$$-c_2x^2y + {c_1}^2x^2y + {c_1}^2xy^2 - c_2xy^2$$

$$-{c_1}^3x^3y - c_3x^3y + 2\,c_2c_1x^3y - 3/2\,c_3x^2y^2 + 4\,c_2c_1x^2y^2 - 5/2\,{c_1}^3x^2y^2 + 2\,c_2c_1xy^3 - {c_1}^3xy^3 - c_3xy^3$$

$$+2\,c_3c_1x^4y - c_4x^4y + {c_2}^2x^4y - 3\,c_2{c_1}^2x^4y + {c_1}^4x^4y - 2\,c_4x^3y^2 + 3\,{c_2}^2x^3y^2 + 9/2\,{c_1}^4x^3y^2 - 11\,c_2{c_1}^2x^3y^2 + 11/2\,c_3c_1x^3y^2 + 3\,{c_2}^2x^2y^3 - 11\,c_2{c_1}^2x^2y^3 - 2\,c_4x^2y^3 + 9/2\,{c_1}^4x^2y^3 + 11/2\,c_3c_1x^2y^3 - c_4xy^4 - 3\,c_2{c_1}^2xy^4 + {c_2}^2xy^4 + 2\,c_3c_1xy^4 + {c_1}^4xy^4$$

$$+4\,c_2{c_1}^3x^5y + 2\,c_2c_3x^5y - 3\,c_1{c_2}^2x^5y + 2\,c_4c_1x^5y - {c_1}^5x^5y - c_5x^5y - 3\,c_3{c_1}^2x^5y - 14\,c_3{c_1}^2x^4y^2 - \tfrac{29}{2}\,c_1{c_2}^2x^4y^2 - 5/2\,c_5x^4y^2 + 15/2\,c_2c_3x^4y^2 + \tfrac{47}{2}\,c_2{c_1}^3x^4y^2 - 7\,{c_1}^5x^4y^2 + 7\,c_4c_1x^4y^2 - 10/3\,c_5x^3y^3 + 11\,c_2c_3x^3y^3 + 10\,c_4c_1x^3y^3 - 23\,c_1{c_2}^2x^3y^3 - \tfrac{25}{2}\,{c_1}^5x^3y^3 + \tfrac{118}{3}\,c_2{c_1}^3x^3y^3 - \tfrac{43}{2}\,c_3{c_1}^2x^3y^3 + 15/2\,c_2c_3x^2y^4 + \tfrac{47}{2}\,c_2{c_1}^3x^2y^4 - 14\,c_3{c_1}^2x^2y^4 - \tfrac{29}{2}\,c_1{c_2}^2x^2y^4 - 5/2\,c_5x^2y^4 + 7\,c_4c_1x^2y^4 - 7\,{c_1}^5x^2y^4 - 3\,c_3{c_1}^2xy^5 - c_5xy^5 - {c_1}^5xy^5 + 2\,c_2c_3xy^5 + 4\,c_2{c_1}^3xy^5 - 3\,c_1{c_2}^2xy^5$$

$$+6\,{c_1}^2{c_2}^2x^6y + 2\,c_2c_4x^6y - c_6x^6y + 4\,c_3{c_1}^3x^6y + 2\,c_5c_1x^6y - 5\,c_2{c_1}^4x^6y - 3\,c_4{c_1}^2x^6y + {c_3}^2x^6y - 6\,c_1c_2c_3x^6y - {c_2}^3x^6y + {c_1}^6x^6y + 9\,c_2c_4x^5y^2 - 17\,c_4{c_1}^2x^5y^2 + 9/2\,{c_3}^2x^5y^2 + \tfrac{57}{2}\,c_3{c_1}^3x^5y^2 +$$

$\frac{87}{2}\,c_1{}^2c_2{}^2x^5y^2 - 6\,c_2{}^3x^5y^2 - 35\,c_1c_2c_3x^5y^2 + 17/2\,c_5c_1x^5y^2 - 3\,c_6x^5y^2 + 10\,c_1{}^6x^5y^2 - 43\,c_2c_1{}^4x^5y^2 - \frac{147}{2}\,c_1c_2c_3x^4y^3 + 17\,c_2c_4x^4y^3 - 35\,c_4c_1{}^2x^4y^3 - 5\,c_6x^4y^3 + \frac{203}{2}\,c_1{}^2c_2{}^2x^4y^3 + 65\,c_3c_1{}^3x^4y^3 + \frac{95}{6}\,c_5c_1x^4y^3 - \frac{653}{6}\,c_2c_1{}^4x^4y^3 + \frac{55}{2}\,c_1{}^6x^4y^3 + 17/2\,c_2{}^2x^4y^3 - 13\,c_2{}^3x^4y^3 + 17\,c_2c_4x^3y^4 - \frac{147}{2}\,c_1c_2c_3x^3y^4 - 5\,c_6x^3y^4 + \frac{95}{6}\,c_5c_1x^3y^4 + \frac{203}{2}\,c_1{}^2c_2{}^2x^3y^4 + \frac{55}{2}\,c_1{}^6x^3y^4 - 13\,c_2{}^3x^3y^4 + 65\,c_3c_1{}^3x^3y^4 - 35\,c_4c_1{}^2x^3y^4 - \frac{653}{6}\,c_2c_1{}^4x^3y^4 + 17/2\,c_3{}^2x^3y^4 + 9/2\,c_3{}^2x^2y^5 + 17/2\,c_5c_1x^2y^5 + 9\,c_2c_4x^2y^5 - 17\,c_4c_1{}^2x^2y^5 - 43\,c_2c_1{}^4x^2y^5 + \frac{57}{2}\,c_3c_1{}^3x^2y^5 + \frac{87}{2}\,c_1{}^2c_2{}^2x^2y^5 - 6\,c_2{}^3x^2y^5 - 3\,c_6x^2y^5 - 35\,c_1c_2c_3x^2y^5 + 10\,c_1{}^6x^2y^5 + c_1{}^6xy^6 - 6\,c_1c_2c_3xy^6 + c_3{}^2xy^6 + 2\,c_5c_1xy^6 - c_6xy^6 - 3\,c_4c_1{}^2xy^6 - c_2{}^3xy^6 + 6\,c_1{}^2c_2{}^2xy^6 + 2\,c_2c_4xy^6 - 5\,c_2c_1{}^4xy^6 + 4\,c_3c_1{}^3xy^6$

$-5\,c_3c_1{}^4x^7y + 4\,c_4c_1{}^3x^7y + 6\,c_2c_1{}^5x^7y - 3\,c_1c_3{}^2x^7y - 3\,c_5c_1{}^2x^7y - 6\,c_1c_2c_4x^7y - c_1{}^7x^7y + 2\,c_3c_4x^7y - c_7x^7y - 3\,c_2{}^2c_3x^7y + 4\,c_1c_2{}^3x^7y + 2\,c_6c_1x^7y + 2\,c_2c_5x^7y + 12\,c_1{}^2c_2c_3x^7y - 10\,c_1{}^3c_2{}^2x^7y - 7/2\,c_7x^6y^2 + \frac{67}{2}\,c_4c_1{}^3x^6y^2 - \frac{41}{2}\,c_1c_3{}^2x^6y^2 + 102\,c_1{}^2c_2c_3x^6y^2 + \frac{69}{2}\,c_1c_2{}^3x^6y^2 - 102\,c_1{}^3c_2{}^2x^6y^2 + 10\,c_6c_1x^6y^2 + 71\,c_2c_1{}^5x^6y^2 - \frac{27}{2}\,c_1{}^7x^6y^2 - \frac{101}{2}\,c_3c_1{}^4x^6y^2 - 41\,c_1c_2c_4x^6y^2 + 21/2\,c_2c_5x^6y^2 - 21\,c_2{}^2c_3x^6y^2 - 20\,c_5c_1{}^2x^6y^2 + 21/2\,c_3c_4x^6y^2 + 24\,c_3c_4x^5y^3 - \frac{311}{6}\,c_5c_1{}^2x^5y^3 - \frac{105}{2}\,c_1{}^7x^5y^3 + 23\,c_6c_1x^5y^3 - 107\,c_1c_2c_4x^5y^3 + \frac{760}{3}\,c_2c_1{}^5x^5y^3 - \frac{1997}{6}\,c_1{}^3c_2{}^2x^5y^3 - \frac{325}{2}\,c_3c_1{}^4x^5y^3 + 103\,c_1c_2{}^3x^5y^3 + \frac{73}{3}\,c_2c_5x^5y^3 + 298\,c_1{}^2c_2c_3x^5y^3 - 56\,c_2{}^2c_3x^5y^3 - 53\,c_1c_3{}^2x^5y^3 + 97\,c_4c_1{}^3x^5y^3 - 7\,c_7x^5y^3 - \frac{1445}{3}\,c_1{}^3c_2{}^2x^4y^4 - \frac{467}{2}\,c_3c_1{}^4x^4y^4 + 31\,c_3c_4x^4y^4 - \frac{35}{4}\,c_7x^4y^4 - 144\,c_1c_2c_4x^4y^4 - \frac{645}{8}\,c_1{}^7x^4y^4 + \frac{831}{2}\,c_1{}^2c_2c_3x^4y^4 - 70\,c_5c_1{}^2x^4y^4 + \frac{95}{3}\,c_2c_5x^4y^4 - \frac{569}{8}\,c_1c_3{}^2x^4y^4 + \frac{755}{2}\,c_2c_1{}^5x^4y^4 + 30\,c_6c_1x^4y^4 - 76\,c_2{}^2c_3x^4y^4 + 135\,c_4c_1{}^3x^4y^4 + 145\,c_1c_2{}^3x^4y^4 + \frac{760}{3}\,c_2c_1{}^5x^3y^5 + 298\,c_1{}^2c_2c_3x^3y^5 - 7\,c_7x^3y^5 + \frac{73}{3}\,c_2c_5x^3y^5 + 97\,c_4c_1{}^3x^3y^5 - 56\,c_2{}^2c_3x^3y^5 - 107\,c_1c_2c_4x^3y^5 - \frac{1997}{6}\,c_1{}^3c_2{}^2x^3y^5 + 103\,c_1c_2{}^3x^3y^5 - \frac{105}{2}\,c_1{}^7x^3y^5 - 53\,c_1c_3{}^2x^3y^5 + 23\,c_6c_1x^3y^5 - \frac{325}{2}\,c_3c_1{}^4x^3y^5 + 24\,c_3c_4x^3y^5 - \frac{311}{6}\,c_5c_1{}^2x^3y^5 - 21\,c_2{}^2c_3x^2y^6 + 21/2\,c_3c_4x^2y^6 - 102\,c_1{}^3c_2{}^2x^2y^6 + \frac{69}{2}\,c_1c_2{}^3x^2y^6 + 21/2\,c_2c_5x^2y^6 + 10\,c_6c_1x^2y^6 + \frac{67}{2}\,c_4c_1{}^3x^2y^6 + 71\,c_2c_1{}^5x^2y^6 - \frac{41}{2}\,c_1c_3{}^2x^2y^6 - 41\,c_1c_2c_4x^2y^6 - 7/2\,c_7x^2y^6 - \frac{101}{2}\,c_3c_1{}^4x^2y^6 - \frac{27}{2}\,c_1{}^7x^2y^6 + 102\,c_1{}^2c_2c_3x^2y^6 - 20\,c_5c_1{}^2x^2y^6 + 2\,c_3c_4xy^7 + 2\,c_2c_5xy^7 - c_7xy^7 - 3\,c_1c_3{}^2xy^7 + 4\,c_4c_1{}^3xy^7 - 6\,c_1c_2c_4xy^7 - 3\,c_2{}^2c_3xy^7 - c_1{}^7xy^7 + 6\,c_2c_1{}^5xy^7 + 4\,c_1c_2{}^3xy^7 - 10\,c_1{}^3c_2{}^2xy^7 - 5\,c_3c_1{}^4xy^7 - 3\,c_5c_1{}^2xy^7 + 12\,c_1{}^2c_2c_3xy^7 + 2\,c_6c_1xy^7$

$-3\,c_2{}^2c_4x^8y - 3\,c_2c_3{}^2x^8y - 6\,c_1c_2c_5x^8y - 5\,c_4c_1{}^4x^8y - 10\,c_1{}^2c_2{}^3x^8y + 6\,c_1{}^2c_3{}^2x^8y + c_4{}^2x^8y + c_1{}^8x^8y + c_2{}^4x^8y + 15\,c_1{}^4c_2{}^2x^8y - 7\,c_2c_1{}^6x^8y - c_8x^8y + 2\,c_2c_6x^8y + 12\,c_1c_2{}^2c_3x^8y + 6\,c_3c_1{}^5x^8y + 2\,c_3c_5x^8y + 2\,c_7c_1x^8y - 20\,c_1{}^3c_2c_3x^8y - 3\,c_6c_1{}^2x^8y + 12\,c_1{}^2c_2c_4x^8y - 6\,c_1c_3c_4x^8y + 4\,c_5c_1{}^3x^8y + 12\,c_3c_5x^7y^2 - 58\,c_4c_1{}^4x^7y^2 + 117\,c_1{}^2c_2c_4x^7y^2 - 24\,c_2c_3{}^2x^7y^2 + \frac{237}{2}\,c_1c_2{}^2c_3x^7y^2 - 23\,c_6c_1{}^2x^7y^2 + 12\,c_2c_6x^7y^2 + 205\,c_1{}^4c_2{}^2x^7y^2 + \frac{35}{2}\,c_1{}^8x^7y^2 + \frac{117}{2}\,c_1{}^2c_3{}^2x^7y^2 - 234\,c_1{}^3c_2c_3x^7y^2 - 118\,c_1{}^2c_2{}^3x^7y^2 - 24\,c_2{}^2c_4x^7y^2 + \frac{163}{2}\,c_3c_1{}^5x^7y^2 + 6\,c_4{}^2x^7y^2 + \frac{77}{2}\,c_5c_1{}^3x^7y^2 - 109\,c_2c_1{}^6x^7y^2 - 4\,c_8x^7y^2 + 10\,c_2{}^4x^7y^2 - 47\,c_1c_2c_5x^7y^2 + 23/2\,c_7c_1x^7y^2 - 47\,c_1c_3c_4x^7y^2 + 204\,c_1{}^2c_3{}^2x^6y^3 - \frac{3127}{6}\,c_2c_1{}^6x^6y^3 - 76\,c_2{}^2c_4x^6y^3 - \frac{2761}{3}\,c_1{}^3c_2c_3x^6y^3 + 33\,c_2c_6x^6y^3 + \frac{97}{3}\,c_3c_5x^6y^3 + \frac{707}{2}\,c_3c_1{}^5x^6y^3 - 72\,c_6c_1{}^2x^6y^3 + \frac{407}{3}\,c_5c_1{}^3x^6y^3 - \frac{151}{2}\,c_2c_3{}^2x^6y^3 + 422\,c_1c_2{}^2c_3x^6y^3 - \frac{455}{2}\,c_4c_1{}^4x^6y^3 + 412\,c_1{}^2c_2c_4x^6y^3 - \frac{883}{6}\,c_1c_2c_5x^6y^3 + \frac{63}{2}\,c_7c_1x^6y^3 - \frac{941}{2}\,c_1{}^2c_2{}^3x^6y^3 - \frac{289}{2}\,c_1c_3c_4x^6y^3 + 16\,c_4{}^2x^6y^3 + 91\,c_1{}^8x^6y^3 + \frac{2690}{3}\,c_1{}^4c_2{}^2x^6y^3 + \frac{109}{3}\,c_2{}^4x^6y^3 - \frac{28}{3}\,c_8x^6y^3 - \frac{511}{4}\,c_2c_3{}^2x^5y^4 + \frac{2883}{8}\,c_1{}^2c_3{}^2x^5y^4 - \frac{4315}{4}\,c_2c_1{}^6x^5y^4 - 14\,c_8x^5y^4 - \frac{3451}{2}\,c_1{}^3c_2c_3x^5y^4 + 25\,c_4{}^2x^5y^4 - \frac{1783}{2}\,c_1{}^2c_2{}^3x^5y^4 + \frac{487}{2}\,c_5c_1{}^3x^5y^4 + \frac{1575}{8}\,c_1{}^8x^5y^4 + 1775\,c_1{}^4c_2{}^2x^5y^4 - 129\,c_2{}^2c_4x^5y^4 + 695\,c_3c_1{}^5x^5y^4 - 427\,c_4c_1{}^4x^5y^4 + \frac{203}{4}\,c_7c_1x^5y^4 + 734\,c_1{}^2c_2c_4x^5y^4 - 123\,c_6c_1{}^2x^5y^4 + 66\,c_2{}^4x^5y^4 + 53\,c_2c_6x^5y^4 - 241\,c_1c_3c_4x^5y^4 + 51\,c_3c_5x^5y^4 + \frac{1513}{2}\,c_1c_2{}^2c_3x^5y^4 - \frac{499}{2}\,c_1c_2c_5x^5y^4 + 1775\,c_1{}^4c_2{}^2x^4y^5 + 25\,c_4{}^2x^4y^5 - \frac{4315}{4}\,c_2c_1{}^6x^4y^5 + \frac{487}{2}\,c_5c_1{}^3x^4y^5 - \frac{1783}{2}\,c_1{}^2c_2{}^3x^4y^5 - 123\,c_6c_1{}^2x^4y^5 + \frac{1513}{2}\,c_1c_2{}^2c_3x^4y^5 + 695\,c_3c_1{}^5x^4y^5 + \frac{2883}{8}\,c_1{}^2c_3{}^2x^4y^5 - 427\,c_4c_1{}^4x^4y^5 + \frac{203}{4}\,c_7c_1x^4y^5 - 129\,c_2{}^2c_4x^4y^5 + 734\,c_1{}^2c_2c_4x^4y^5 + 66\,c_2{}^4x^4y^5 - 241\,c_1c_3c_4x^4y^5 - \frac{499}{2}\,c_1c_2c_5x^4y^5 - 14\,c_8x^4y^5 + \frac{1575}{8}\,c_1{}^8x^4y^5 + 51\,c_3c_5x^4y^5 - \frac{511}{4}\,c_2c_3{}^2x^4y^5 + 53\,c_2c_6x^4y^5 - \frac{3451}{2}\,c_1{}^3c_2c_3x^4y^5 + \frac{707}{2}\,c_3c_1{}^5x^3y^6 + 204\,c_1{}^2c_3{}^2x^3y^6 + \frac{2690}{3}\,c_1{}^4c_2{}^2x^3y^6 - \frac{455}{2}\,c_4c_1{}^4x^3y^6 + 91\,c_1{}^8x^3y^6 - \frac{3127}{6}\,c_2c_1{}^6x^3y^6 +$

$\frac{407}{3}\,c_5c_1{}^3x^3y^6 - 72\,c_6c_1{}^2x^3y^6 - \frac{289}{2}\,c_1c_3c_4x^3y^6 - \frac{151}{2}\,c_2c_3{}^2x^3y^6 + 422\,c_1c_2{}^2c_3x^3y^6 + 412\,c_1{}^2c_2c_4x^3y^6 - \frac{883}{6}\,c_1c_2c_5x^3y^6 + 33\,c_2c_6x^3y^6 + \frac{109}{3}\,c_2{}^4x^3y^6 - \frac{941}{2}\,c_1{}^2c_2{}^3x^3y^6 + \frac{97}{3}\,c_3c_5x^3y^6 - 76\,c_2{}^2c_4x^3y^6 - \frac{2761}{3}\,c_1{}^3c_2c_3x^3y^6 + \frac{63}{2}\,c_7c_1x^3y^6 + 16\,c_4{}^2x^3y^6 - \frac{28}{3}\,c_8x^3y^6 + 12\,c_3c_5x^2y^7 + 6\,c_4{}^2x^2y^7 + 10\,c_2{}^4x^2y^7 + 117\,c_1{}^2c_2c_4x^2y^7 + \frac{117}{2}\,c_1{}^2c_3{}^2x^2y^7 + 12\,c_2c_6x^2y^7 - 24\,c_2c_3{}^2x^2y^7 + \frac{35}{2}\,c_1{}^8x^2y^7 - 47\,c_1c_2c_5x^2y^7 - 234\,c_1{}^3c_2c_3x^2y^7 - 4\,c_8x^2y^7 - 24\,c_2{}^2c_4x^2y^7 - 109\,c_2c_1{}^6x^2y^7 - 47\,c_1c_3c_4x^2y^7 + \frac{77}{2}\,c_5c_1{}^3x^2y^7 - 58\,c_4c_1{}^4x^2y^7 - 23\,c_6c_1{}^2x^2y^7 + \frac{163}{2}\,c_3c_1{}^5x^2y^7 + \frac{237}{2}\,c_1c_2{}^2c_3x^2y^7 - 118\,c_1{}^2c_2{}^3x^2y^7 + 205\,c_1{}^4c_2{}^2x^2y^7 + 23/2\,c_7c_1x^2y^7 - c_8xy^8 + 4\,c_5c_1{}^3xy^8 - 10\,c_1{}^2c_2{}^3xy^8 + c_4{}^2xy^8 - 3\,c_6c_1{}^2xy^8 + c_1{}^8xy^8 - 7\,c_2c_1{}^6xy^8 + c_2{}^4xy^8 - 3\,c_2{}^2c_4xy^8 - 6\,c_1c_3c_4xy^8 + 2\,c_7c_1xy^8 + 12\,c_1{}^2c_2c_4xy^8 + 6\,c_3c_1{}^5xy^8 - 20\,c_1{}^3c_2c_3xy^8 - 3\,c_2c_3{}^2xy^8 + 2\,c_3c_5xy^8 + 12\,c_1c_2{}^2c_3xy^8 - 5\,c_4c_1{}^4xy^8 - 6\,c_1c_2c_5xy^8 + 2\,c_2c_6xy^8 + 6\,c_1{}^2c_3{}^2xy^8 + 15\,c_1{}^4c_2{}^2xy^8$

$-6\,c_1c_2c_6x^9y + 30\,c_1{}^4c_2c_3x^9y - 6\,c_2c_3c_4x^9y + 12\,c_1{}^2c_3c_4x^9y + 12\,c_1{}^2c_2c_5x^9y - 5\,c_1c_2{}^4x^9y - 3\,c_1c_4{}^2x^9y + 2\,c_2c_7x^9y - 30\,c_1{}^2c_2{}^2c_3x^9y + 12\,c_1c_2c_3{}^2x^9y + 12\,c_1c_2{}^2c_4x^9y - 20\,c_1{}^3c_2c_4x^9y - 6\,c_1c_3c_5x^9y - 7\,c_3c_1{}^6x^9y - 21\,c_1{}^5c_2{}^2x^9y + 6\,c_4c_1{}^5x^9y - 10\,c_1{}^3c_3{}^2x^9y + 20\,c_1{}^3c_2{}^3x^9y + 2\,c_4c_5x^9y + 4\,c_6c_1{}^3x^9y + 4\,c_2{}^3c_3x^9y - 3\,c_7c_1{}^2x^9y - c_3{}^3x^9y - c_1{}^9x^9y - 5\,c_5c_1{}^4x^9y + 8\,c_2c_1{}^7x^9y + 2\,c_8c_1x^9y - c_9x^9y - 3\,c_2{}^2c_5x^9y + 2\,c_3c_6x^9y - 54\,c_2c_3c_4x^8y^2 + \frac{267}{2}\,c_1c_2{}^2c_4x^8y^2 + 132\,c_1{}^2c_3c_4x^8y^2 - 22\,c_1{}^9x^8y^2 + \frac{925}{2}\,c_1{}^4c_2c_3x^8y^2 - 264\,c_1{}^3c_2c_4x^8y^2 + \frac{27}{2}\,c_4c_5x^8y^2 + 132\,c_1{}^2c_2c_5x^8y^2 - 123\,c_3c_1{}^6x^8y^2 + \frac{87}{2}\,c_6c_1{}^3x^8y^2 - \frac{131}{2}\,c_5c_1{}^4x^8y^2 - 9\,c_3{}^3x^8y^2 + 310\,c_1{}^3c_2{}^3x^8y^2 - 399\,c_1{}^2c_2{}^2c_3x^8y^2 + \frac{267}{2}\,c_1c_2c_3{}^2x^8y^2 - 132\,c_1{}^3c_3{}^2x^8y^2 + \frac{27}{2}\,c_3c_6x^8y^2 - 53\,c_1c_3c_5x^8y^2 - 53\,c_1c_2c_6x^8y^2 + 45\,c_2{}^3c_3x^8y^2 + \frac{317}{2}\,c_2c_1{}^7x^8y^2 - 27\,c_2{}^2c_5x^8y^2 - \frac{741}{2}\,c_1{}^5c_2{}^2x^8y^2 + 13\,c_8c_1x^8y^2 - 26\,c_7c_1{}^2x^8y^2 - 67\,c_1c_2{}^4x^8y^2 + 92\,c_4c_1{}^5x^8y^2 - 9/2\,c_9x^8y^2 - \frac{53}{2}\,c_1c_4{}^2x^8y^2 + \frac{27}{2}\,c_2c_7x^8y^2 + 181\,c_6c_1{}^3x^7y^3 - 693\,c_3c_1{}^6x^7y^3 - 2098\,c_1{}^5c_2{}^2x^7y^3 + \frac{4810}{3}\,c_1{}^3c_2{}^3x^7y^3 + 43\,c_2c_7x^7y^3 - 12\,c_9x^7y^3 + \frac{2933}{3}\,c_2c_1{}^7x^7y^3 + 554\,c_1c_2{}^2c_4x^7y^3 - \frac{3661}{3}\,c_1{}^3c_2c_4x^7y^3 - \frac{1825}{6}\,c_5c_1{}^4x^7y^3 - 605\,c_1{}^3c_3{}^2x^7y^3 + \frac{7115}{3}\,c_1{}^4c_2c_3x^7y^3 - \frac{946}{3}\,c_1c_2{}^4x^7y^3 + 472\,c_4c_1{}^5x^7y^3 - \frac{191}{2}\,c_7c_1{}^2x^7y^3 + 42\,c_3c_6x^7y^3 + \frac{124}{3}\,c_4c_5x^7y^3 - \frac{65}{2}\,c_3{}^3x^7y^3 - \frac{3707}{2}\,c_1{}^2c_2{}^2c_3x^7y^3 + 550\,c_1c_2c_3{}^2x^7y^3 - \frac{298}{3}\,c_2{}^2c_5x^7y^3 - 196\,c_2c_3c_4x^7y^3 - \frac{569}{3}\,c_1c_3c_5x^7y^3 - 194\,c_1c_2c_6x^7y^3 + 189\,c_2{}^3c_3x^7y^3 - 147\,c_1{}^9x^7y^3 - 94\,c_1c_4{}^2x^7y^3 + \frac{124}{3}\,c_8c_1x^7y^3 + 546\,c_1{}^2c_2c_5x^7y^3 + 537\,c_1{}^2c_3c_4x^7y^3 - 398\,c_1c_2c_6x^6y^4 + \frac{2409}{2}\,c_1c_2{}^2c_4x^6y^4 + \frac{2381}{2}\,c_1{}^2c_2c_5x^6y^4 + 5800\,c_1{}^4c_2c_3x^6y^4 + \frac{64267}{24}\,c_2c_1{}^7x^6y^4 - \frac{8449}{3}\,c_1{}^3c_2c_4x^6y^4 - \frac{1519}{4}\,c_1c_3c_5x^6y^4 - \frac{8513}{12}\,c_5c_1{}^4x^6y^4 + \frac{238}{3}\,c_8c_1x^6y^4 - 395\,c_2c_3c_4x^6y^4 + \frac{2295}{2}\,c_1{}^2c_3c_4x^6y^4 + \frac{2317}{2}\,c_4c_1{}^5x^6y^4 + \frac{9501}{8}\,c_1c_2c_3{}^2x^6y^4 - \frac{791}{4}\,c_7c_1{}^2x^6y^4 + \frac{455}{6}\,c_4c_5x^6y^4 - \frac{17155}{4}\,c_1{}^2c_2{}^2c_3x^6y^4 - \frac{523}{8}\,c_3{}^3x^6y^4 - \frac{847}{2}\,c_1{}^9x^6y^4 - \frac{14341}{8}\,c_3c_1{}^6x^6y^4 + \frac{799}{2}\,c_6c_1{}^3x^6y^4 + \frac{829}{2}\,c_2{}^3c_3x^6y^4 - \frac{5527}{4}\,c_1{}^3c_3{}^2x^6y^4 + 3955\,c_1{}^3c_2{}^3x^6y^4 - \frac{21819}{4}\,c_1{}^5c_2{}^2x^6y^4 - \frac{2215}{3}\,c_1c_2{}^4x^6y^4 + \frac{157}{2}\,c_3c_6x^6y^4 - 203\,c_2{}^2c_5x^6y^4 + \frac{329}{4}\,c_2c_7x^6y^4 - 186\,c_1c_4{}^2x^6y^4 - 21\,c_9x^6y^4 + \frac{15850}{3}\,c_1{}^3c_2{}^3x^5y^5 + 516\,c_6c_1{}^3x^5y^5 - 932\,c_5c_1{}^4x^5y^5 - \frac{9723}{4}\,c_3c_1{}^6x^5y^5 - \frac{44477}{6}\,c_1{}^5c_2{}^2x^5y^5 - 494\,c_2c_3c_4x^5y^5 + \frac{7726}{5}\,c_4c_1{}^5x^5y^5 - \frac{14379}{8}\,c_1{}^3c_3{}^2x^5y^5 + 3703\,c_2c_1{}^7x^5y^5 - \frac{4767}{8}\,c_1{}^9x^5y^5 + 1461\,c_1{}^2c_3c_4x^5y^5 + 96\,c_3c_6x^5y^5 - 231\,c_1c_4{}^2x^5y^5 - \frac{766}{3}\,c_2{}^2c_5x^5y^5 - \frac{126}{5}\,c_9x^5y^5 - 970\,c_1c_2{}^4x^5y^5 - 502\,c_1c_2c_6x^5y^5 + 92\,c_4c_5x^5y^5 + \frac{203}{2}\,c_2c_7x^5y^5 - \frac{1001}{4}\,c_7c_1{}^2x^5y^5 - \frac{11217}{2}\,c_1{}^2c_2{}^2c_3x^5y^5 + \frac{3037}{2}\,c_1c_2c_3{}^2x^5y^5 + \frac{4588}{3}\,c_1{}^2c_2c_5x^5y^5 - \frac{327}{4}\,c_3{}^3x^5y^5 + 98\,c_8c_1x^5y^5 + 7720\,c_1{}^4c_2c_3x^5y^5 - 3680\,c_1{}^3c_2c_4x^5y^5 + 533\,c_2{}^3c_3x^5y^5 - 474\,c_1c_3c_5x^5y^5 + 1544\,c_1c_2{}^2c_4x^5y^5 - \frac{14341}{8}\,c_3c_1{}^6x^4y^6 - \frac{847}{2}\,c_1{}^9x^4y^6 + \frac{64267}{24}\,c_2c_1{}^7x^4y^6 - \frac{8513}{12}\,c_5c_1{}^4x^4y^6 + \frac{2295}{2}\,c_1{}^2c_3c_4x^4y^6 + \frac{455}{6}\,c_4c_5x^4y^6 + \frac{799}{2}\,c_6c_1{}^3x^4y^6 + \frac{2381}{2}\,c_1{}^2c_2c_5x^4y^6 + \frac{329}{4}\,c_2c_7x^4y^6 - \frac{791}{4}\,c_7c_1{}^2x^4y^6 + \frac{157}{2}\,c_3c_6x^4y^6 - 203\,c_2{}^2c_5x^4y^6 + 5800\,c_1{}^4c_2c_3x^4y^6 - 395\,c_2c_3c_4x^4y^6 + \frac{238}{3}\,c_8c_1x^4y^6 - 398\,c_1c_2c_6x^4y^6 - \frac{2215}{3}\,c_1c_2{}^4x^4y^6 - 186\,c_1c_4{}^2x^4y^6 + \frac{829}{2}\,c_2{}^3c_3x^4y^6 - 21\,c_9x^4y^6 + 3955\,c_1{}^3c_2{}^3x^4y^6 - \frac{8449}{3}\,c_1{}^3c_2c_4x^4y^6 - \frac{523}{8}\,c_3{}^3x^4y^6 + \frac{9501}{8}\,c_1c_2c_3{}^2x^4y^6 + \frac{2317}{2}\,c_4c_1{}^5x^4y^6 - \frac{21819}{4}\,c_1{}^5c_2{}^2x^4y^6 + \frac{2409}{2}\,c_1c_2{}^2c_4x^4y^6 - \frac{1519}{4}\,c_1c_3c_5x^4y^6 - \frac{5527}{4}\,c_1{}^3c_3{}^2x^4y^6 - \frac{17155}{4}\,c_1{}^2c_2{}^2c_3x^4y^6 - 147\,c_1{}^9x^3y^7 - \frac{3661}{3}\,c_1{}^3c_2c_4x^3y^7 - \frac{191}{2}\,c_7c_1{}^2x^3y^7 - 94\,c_1c_4{}^2x^3y^7 + 550\,c_1c_2c_3{}^2x^3y^7 - \frac{569}{3}\,c_1c_3c_5x^3y^7 - \frac{65}{2}\,c_3{}^3x^3y^7 - \frac{1825}{6}\,c_5c_1{}^4x^3y^7 + \frac{124}{3}\,c_8c_1x^3y^7 - \frac{946}{3}\,c_1c_2{}^4x^3y^7 - 194\,c_1c_2c_6x^3y^7 + 554\,c_1c_2{}^2c_4x^3y^7 + 43\,c_2c_7x^3y^7 - \frac{298}{3}\,c_2{}^2c_5x^3y^7 + 546\,c_1{}^2c_2c_5x^3y^7 - 693\,c_3c_1{}^6x^3y^7 + 42\,c_3c_6x^3y^7 + \frac{7115}{3}\,c_1{}^4c_2c_3x^3y^7 - 196\,c_2c_3c_4x^3y^7 + \frac{124}{3}\,c_4c_5x^3y^7 -$

$\frac{3707}{2}\,c_1{}^2c_2{}^2c_3x^3y^7 + 189\,c_2{}^3c_3x^3y^7 + 181\,c_6c_1{}^3x^3y^7 + \frac{4810}{3}\,c_1{}^3c_2{}^3x^3y^7 + 537\,c_1{}^2c_3c_4x^3y^7 - 12\,c_9x^3y^7 - 605\,c_1{}^3c_3{}^2x^3y^7 - 2098\,c_1{}^5c_2{}^2x^3y^7 + \frac{2933}{3}\,c_2c_1{}^7x^3y^7 + 472\,c_4c_1{}^5x^3y^7 + \frac{925}{2}\,c_1{}^4c_2c_3x^2y^8 - 123\,c_3c_1{}^6x^2y^8 + 92\,c_4c_1{}^5x^2y^8 - 54\,c_2c_3c_4x^2y^8 - \frac{741}{2}\,c_1{}^5c_2{}^2x^2y^8 - 22\,c_1{}^9x^2y^8 + \frac{317}{2}\,c_2c_1{}^7x^2y^8 - 264\,c_1{}^3c_2c_4x^2y^8 + 13\,c_8c_1x^2y^8 - 9/2\,c_9x^2y^8 - 9\,c_3{}^3x^2y^8 + \frac{267}{2}\,c_1c_2{}^2c_4x^2y^8 + \frac{27}{2}\,c_4c_5x^2y^8 - 53\,c_1c_3c_5x^2y^8 - \frac{131}{2}\,c_5c_1{}^4x^2y^8 - 26\,c_7c_1{}^2x^2y^8 + \frac{27}{2}\,c_3c_6x^2y^8 + 45\,c_2{}^3c_3x^2y^8 - 53\,c_1c_2c_6x^2y^8 + \frac{267}{2}\,c_1c_2c_3{}^2x^2y^8 - 399\,c_1{}^2c_2{}^2c_3x^2y^8 - 67\,c_1c_2{}^4x^2y^8 + \frac{87}{2}\,c_6c_1{}^3x^2y^8 + \frac{27}{2}\,c_2c_7x^2y^8 - 132\,c_1{}^3c_3{}^2x^2y^8 - \frac{53}{2}\,c_1c_4{}^2x^2y^8 + 132\,c_1{}^2c_3c_4x^2y^8 + 310\,c_1{}^3c_2{}^3x^2y^8 + 132\,c_1{}^2c_2c_5x^2y^8 - 27\,c_2{}^2c_5x^2y^8 + 12\,c_1{}^2c_2c_5xy^9 + 20\,c_1{}^3c_2{}^3xy^9 - 10\,c_1{}^3c_3{}^2xy^9 + 2\,c_8c_1xy^9 - 3\,c_1c_4{}^2xy^9 - 5\,c_1c_2{}^4xy^9 + 4\,c_6c_1{}^3xy^9 - 6\,c_2c_3c_4xy^9 + 8\,c_2c_1{}^7xy^9 + 12\,c_1{}^2c_3c_4xy^9 - 21\,c_1{}^5c_2{}^2xy^9 + 30\,c_1{}^4c_2c_3xy^9 - 6\,c_1c_2c_6xy^9 - 7\,c_3c_1{}^6xy^9 + 2\,c_3c_6xy^9 + 6\,c_4c_1{}^5xy^9 - 5\,c_5c_1{}^4xy^9 + 4\,c_2{}^3c_3xy^9 - 20\,c_1{}^3c_2c_4xy^9 - 30\,c_1{}^2c_2{}^2c_3xy^9 - c_1{}^9xy^9 + 12\,c_1c_2{}^2c_4xy^9 + 2\,c_2c_7xy^9 - c_3{}^3xy^9 + 2\,c_4c_5xy^9 + 12\,c_1c_2c_3{}^2xy^9 - c_9xy^9 - 3\,c_2{}^2c_5xy^9 - 6\,c_1c_3c_5xy^9 - 3\,c_7c_1{}^2xy^9$

Some values of the n-series for $F_{MU}(x,y)$ are

$[2]_{MU}(x) =$
$(2\,x - c_1x^2 + (-2\,c_2 + 2\,c_1{}^2)x^3 + (-7/2\,c_3 - 1/2\,c_1(8/3\,c_2 + c_1{}^2) + 12\,c_1(1/2\,c_1{}^2 - 1/3\,c_2) - 10\,c_1{}^3 + \frac{40}{3}\,c_2c_1)x^4 + (-1/2\,c_1(2\,c_3 + 4/3\,c_2c_1) + (1/2\,c_1{}^2 - 1/3\,c_2)(8\,c_2 + 6\,c_1{}^2) + 28\,c_1{}^4 - 56\,c_2c_1{}^2 + 24\,c_3c_1 + \frac{32}{3}\,c_2{}^2 - 6\,c_4 + 32\,(-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)c_1)x^5 + ((-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(\frac{64}{3}\,c_2 + 24\,c_1{}^2) + (1/2\,c_1{}^2 - 1/3\,c_2)(c_1(8/3\,c_2 + c_1{}^2) + 6\,c_3 + 16/3\,c_2c_1) - \frac{31}{3}\,c_5 - 84\,c_1{}^5 + 224\,c_2c_1{}^3 - 112\,c_3c_1{}^2 - \frac{896}{9}\,c_1c_2{}^2 + \frac{224}{5}\,c_4c_1 + \frac{112}{3}\,c_2c_3 + 80\,(\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)c_1 - 1/2\,c_1(4/9\,c_2{}^2 + c_3c_1 + 8/5\,c_4))x^6 + (264\,c_1{}^6 - 880\,c_2c_1{}^4 + 480\,c_3c_1{}^3 + 640\,c_1{}^2c_2{}^2 - \frac{1152}{5}\,c_4c_1{}^2 - 384\,c_1c_2c_3 + \frac{256}{3}\,c_5c_1 - \frac{512}{9}\,c_2{}^3 + \frac{1024}{15}\,c_2c_4 + 32\,c_3{}^2 - 18\,c_6 + (-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(8\,c_1(8/3\,c_2 + c_1{}^2) + 16\,c_3 + \frac{32}{3}\,c_2c_1) + (1/2\,c_1{}^2 - 1/3\,c_2)(4\,c_3c_1 + c_1(2\,c_3 + 4/3\,c_2c_1) + \frac{8}{9}\,c_2{}^2 + \frac{24}{5}\,c_4 + 2/3\,c_2(8/3\,c_2 + c_1{}^2)) - 1/2\,c_1(2/3\,c_2c_3 + 4/5\,c_4c_1 + 4/3\,c_5) + 192\,(-\frac{21}{16}\,c_1{}^5 + 7/2\,c_2c_1{}^3 - 7/4\,c_3c_1{}^2 - \frac{14}{9}\,c_1c_2{}^2 + \frac{7}{10}\,c_4c_1 + \frac{7}{12}\,c_2c_3 - 1/6\,c_5)c_1 + (\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)(80\,c_1{}^2 + \frac{160}{3}\,c_2))x^7 + ((-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(\frac{32}{9}\,c_2{}^2 + 8\,c_3c_1 + \frac{64}{5}\,c_4 + 8\,c_1(2\,c_3 + 4/3\,c_2c_1) + (8/3\,c_2 + c_1{}^2)^2) + (-\frac{21}{16}\,c_1{}^5 + 7/2\,c_2c_1{}^3 - 7/4\,c_3c_1{}^2 - \frac{14}{9}\,c_1c_2{}^2 + \frac{7}{10}\,c_4c_1 + \frac{7}{12}\,c_2c_3 - 1/6\,c_5)(128\,c_2 + 240\,c_1{}^2) + 448\,(\frac{33}{16}\,c_1{}^6 - \frac{55}{8}\,c_2c_1{}^4 + \frac{15}{4}\,c_3c_1{}^3 + 5\,c_1{}^2c_2{}^2 - 9/5\,c_4c_1{}^2 - 3\,c_1c_2c_3 + 2/3\,c_5c_1 - 4/9\,c_2{}^3 + \frac{8}{15}\,c_2c_4 + 1/4\,c_3{}^2 - 1/7\,c_6)c_1 - 1/2\,c_1(\frac{8}{15}\,c_2c_4 + \frac{8}{7}\,c_6 + 2/3\,c_5c_1 + 1/4\,c_3{}^2) + 2640\,c_1{}^2c_2c_3 - \frac{127}{4}\,c_7 + \frac{1152}{7}\,c_6c_1 - 768\,c_1c_2c_4 + \frac{576}{5}\,c_3c_4 + 128\,c_2c_5 - 320\,c_2{}^2c_3 + 1056\,c_4c_1{}^3 - 360\,c_1c_3{}^2 - 858\,c_1{}^7 - 480\,c_5c_1{}^2 + 3432\,c_2c_1{}^5 - 1980\,c_3c_1{}^4 - 3520\,c_1{}^3c_2{}^2 + \frac{7040}{9}\,c_1c_2{}^3 + (1/2\,c_1{}^2 - 1/3\,c_2)(\frac{16}{5}\,c_4c_1 + 1/2\,c_3(8/3\,c_2 + c_1{}^2) + c_1(4/9\,c_2{}^2 + c_3c_1 + 8/5\,c_4) + 2/3\,c_2(2\,c_3 + 4/3\,c_2c_1) + 4/3\,c_2c_3 + 4\,c_5) + (\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)(c_1(\frac{64}{3}\,c_2 + 24\,c_1{}^2) + \frac{128}{3}\,c_2c_1 + 16\,c_1(8/3\,c_2 + c_1{}^2) + 40\,c_3))x^8 + (\frac{28160}{81}\,c_2{}^4 + \frac{640}{3}\,c_3c_5 + \frac{512}{5}\,c_4{}^2 + 2860\,c_1{}^8 + 5632\,c_1{}^2c_2c_4 + \frac{14080}{3}\,c_1c_2{}^2c_3 - \frac{7040}{7}\,c_6c_1{}^2 - 4576\,c_4c_1{}^4 + 2640\,c_1{}^2c_3{}^2 + \frac{7040}{3}\,c_5c_1{}^3 - \frac{40040}{3}\,c_2c_1{}^6 + 8008\,c_3c_1{}^5 + \frac{160160}{9}\,c_1{}^4c_2{}^2 - \frac{183040}{27}\,c_1{}^2c_2{}^3 + \frac{5120}{21}\,c_2c_6 - \frac{5632}{9}\,c_2{}^2c_4 - \frac{1760}{3}\,c_2c_3{}^2 - \frac{14080}{9}\,c_1c_2c_5 - \frac{45760}{3}\,c_1{}^3c_2c_3 - 1408\,c_1c_3c_4 - \frac{170}{3}\,c_8 + 320\,c_7c_1 + (1/2\,c_1{}^2 - 1/3\,c_2)(\frac{24}{7}\,c_6 + 1/2\,c_3(2\,c_3 + 4/3\,c_2c_1) + 2/3\,c_2(4/9\,c_2{}^2 + c_3c_1 + 8/5\,c_4) + 2/5\,c_4(8/3\,c_2 + c_1{}^2) + \frac{16}{15}\,c_2c_4 + 8/3\,c_5c_1 + 1/2\,c_3{}^2 + c_1(2/3\,c_2c_3 + 4/5\,c_4c_1 + 4/3\,c_5)) + (-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(16/3\,c_2c_3 + \frac{32}{5}\,c_4c_1 + \frac{32}{3}\,c_5 + 8\,c_1(4/9\,c_2{}^2 + c_3c_1 + 8/5\,c_4) + 2\,(8/3\,c_2 + c_1{}^2)(2\,c_3 + 4/3\,c_2c_1)) - 1/2\,c_1(c_7 + 2/5\,c_3c_4 + 4/9\,c_2c_5 + 4/7\,c_6c_1) + (-\frac{21}{16}\,c_1{}^5 + 7/2\,c_2c_1{}^3 - 7/4\,c_3c_1{}^2 - \frac{14}{9}\,c_1c_2{}^2 + \frac{7}{10}\,c_4c_1 + \frac{7}{12}\,c_2c_3 - 1/6\,c_5)(16\,c_1(8/3\,c_2 + c_1{}^2) + 96\,c_3 + \frac{256}{3}\,c_2c_1 + 24\,c_1(8\,c_2 + 6\,c_1{}^2)) + (\frac{33}{16}\,c_1{}^6 - \frac{55}{8}\,c_2c_1{}^4 + \frac{15}{4}\,c_3c_1{}^3 + 5\,c_1{}^2c_2{}^2 - 9/5\,c_4c_1{}^2 - 3\,c_1c_2c_3 + 2/3\,c_5c_1 - 4/9\,c_2{}^3 + \frac{8}{15}\,c_2c_4 + 1/4\,c_3{}^2 - 1/7\,c_6)(\frac{896}{3}\,c_2 + 672\,c_1{}^2) + (\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)(32\,c_4 + c_1(8\,c_1(8/3\,c_2 + c_1{}^2) + 16\,c_3 + \frac{32}{3}\,c_2c_1) + \frac{64}{9}\,c_2{}^2 + 32\,c_3c_1 + 16\,c_1(2\,c_3 + 4/3\,c_2c_1) + 2\,(8/3\,c_2 + c_1{}^2)^2 + 2/3\,c_2(\frac{64}{3}\,c_2 + 24\,c_1{}^2)) + 1024\,(\frac{165}{16}\,c_1{}^2c_2c_3 - 1/8\,c_7 + \frac{9}{14}\,c_6c_1 - 3\,c_1c_2c_4 + \frac{9}{20}\,c_3c_4 + 1/2\,c_2c_5 - 5/4\,c_2{}^2c_3 + \frac{33}{8}\,c_4c_1{}^3 - \frac{45}{32}\,c_1c_3{}^2 - \frac{429}{128}\,c_1{}^7 - \frac{15}{8}\,c_5c_1{}^2 + \frac{429}{32}\,c_2c_1{}^5 - \frac{495}{64}\,c_3c_1{}^4 - \frac{55}{4}\,c_1{}^3c_2{}^2 + \frac{55}{18}\,c_1c_2{}^3)c_1)x^9 + O(x^{10}))$

$[3]_{MU}(x) = (3\,x - 3\,c_1x^2 + (-8\,c_2 + 9\,c_1{}^2)x^3 + (-\frac{39}{2}\,c_3 - 1/2\,c_1(6\,c_2 + 9/4\,c_1{}^2) + \frac{81}{2}\,c_1(1/2\,c_1{}^2 - 1/3\,c_2) - \frac{405}{8}\,c_1{}^3 + \frac{135}{2}\,c_2c_1)x^4 + (-1/2\,c_1(9/2\,c_3 + 3\,c_2c_1) + (1/2\,c_1{}^2 - 1/3\,c_2)(27\,c_2 + \frac{81}{4}\,c_1{}^2) + \frac{1701}{8}\,c_1{}^4 - \frac{1701}{4}\,c_2c_1{}^2 + \frac{729}{4}\,c_3c_1 + 81\,c_2{}^2 - 48\,c_4 + 162\,(-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)c_1)x^5 + ((-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(108\,c_2 + \frac{243}{2}\,c_1{}^2) + (1/2\,c_1{}^2 - 1/3\,c_2)(3/2\,c_1(6\,c_2 + 9/4\,c_1{}^2) + \frac{81}{4}\,c_3 + 18\,c_2c_1) - 121\,c_5 - \frac{15309}{16}\,c_1{}^5 + \frac{5103}{2}\,c_2c_1{}^3 - \frac{5103}{4}\,c_3c_1{}^2 - 1134\,c_1c_2{}^2 + \frac{5103}{10}\,c_4c_1 + \frac{1701}{4}\,c_2c_3 + \frac{1215}{2}\,(\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)c_1 - 1/2\,c_1(c_2{}^2 + 9/4\,c_3c_1 + \frac{18}{5}\,c_4))x^6 + (\frac{72171}{16}\,c_1{}^6 - \frac{120285}{8}\,c_2c_1{}^4 + \frac{32805}{4}\,c_3c_1{}^3 + 10935\,c_1{}^2c_2{}^2 - \frac{19683}{5}\,c_4c_1{}^2 - 6561\,c_1c_2c_3 + 1458\,c_5c_1 - 972\,c_2{}^3 + \frac{5832}{5}\,c_2c_4 + \frac{2187}{4}\,c_3{}^2 - 312\,c_6 + (-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(18\,c_1(6\,c_2 + 9/4\,c_1{}^2) + 81\,c_3 + 54\,c_2c_1) + (1/2\,c_1{}^2 - 1/3\,c_2)(\frac{27}{2}\,c_3c_1 + 3/2\,c_1(9/2\,c_3 + 3\,c_2c_1) + 3\,c_2{}^2 + \frac{81}{5}\,c_4 + c_2(6\,c_2 + 9/4\,c_1{}^2)) - 1/2\,c_1(3/2\,c_2c_3 + 9/5\,c_4c_1 + 3\,c_5) + 2187\,(-\frac{21}{16}\,c_1{}^5 + 7/2\,c_2c_1{}^3 - 7/4\,c_3c_1{}^2 - \frac{14}{9}\,c_1c_2{}^2 + \frac{7}{10}\,c_4c_1 + \frac{7}{12}\,c_2c_3 - 1/6\,c_5)c_1 + (\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)(\frac{1215}{2}\,c_1{}^2 + 405\,c_2))x^7 + ((-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(18\,c_2{}^2 + \frac{81}{2}\,c_3c_1 + \frac{324}{5}\,c_4 + 18\,c_1(9/2\,c_3 + 3\,c_2c_1) + (6\,c_2 + 9/4\,c_1{}^2)^2) + (-\frac{21}{16}\,c_1{}^5 + 7/2\,c_2c_1{}^3 - 7/4\,c_3c_1{}^2 - \frac{14}{9}\,c_1c_2{}^2 + \frac{7}{10}\,c_4c_1 + \frac{7}{12}\,c_2c_3 - 1/6\,c_5)(1458\,c_2 + \frac{10935}{4}\,c_1{}^2) + \frac{15309}{2}\,(\frac{33}{16}\,c_1{}^6 - \frac{55}{8}\,c_2c_1{}^4 + \frac{15}{4}\,c_3c_1{}^3 + 5\,c_1{}^2c_2{}^2 - 9/5\,c_4c_1{}^2 - 3\,c_1c_2c_3 + 2/3\,c_5c_1 - 4/9\,c_2{}^3 + \frac{8}{15}\,c_2c_4 + 1/4\,c_3{}^2 - 1/7\,c_6)c_1 - 1/2\,c_1(6/5\,c_2c_4 + \frac{18}{7}\,c_6 + 3/2\,c_5c_1 + \frac{9}{16}\,c_3{}^2) + \frac{1082565}{16}\,c_1{}^2c_2c_3 - \frac{3279}{4}\,c_7 + \frac{59049}{14}\,c_6c_1 - 19683\,c_1c_2c_4 + \frac{59049}{20}\,c_3c_4 + \frac{6561}{2}\,c_2c_5 - \frac{32805}{4}\,c_2{}^2c_3 + \frac{216513}{8}\,c_4c_1{}^3 - \frac{295245}{32}\,c_1c_3{}^2 - \frac{2814669}{128}\,c_1{}^7 - \frac{98415}{8}\,c_5c_1{}^2 + \frac{2814669}{32}\,c_2c_1{}^5 - \frac{3247695}{64}\,c_3c_1{}^4 - \frac{360855}{4}\,c_1{}^3c_2{}^2 + \frac{40095}{2}\,c_1c_2{}^3 + (1/2\,c_1{}^2 - 1/3\,c_2)(\frac{54}{5}\,c_4c_1 + 3/4\,c_3(6\,c_2 + 9/4\,c_1{}^2) + 3/2\,c_1(c_2{}^2 + 9/4\,c_3c_1 + \frac{18}{5}\,c_4) + c_2(9/2\,c_3 + 3\,c_2c_1) + 9/2\,c_2c_3 + \frac{27}{2}\,c_5) + (\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)(3/2\,c_1(108\,c_2 + \frac{243}{2}\,c_1{}^2) + 324\,c_2c_1 + 54\,c_1(6\,c_2 + 9/4\,c_1{}^2) + \frac{1215}{4}\,c_3))x^8 + ((-\frac{21}{16}\,c_1{}^5 + 7/2\,c_2c_1{}^3 - 7/4\,c_3c_1{}^2 - \frac{14}{9}\,c_1c_2{}^2 + \frac{7}{10}\,c_4c_1 + \frac{7}{12}\,c_2c_3 - 1/6\,c_5)(81\,c_1(6\,c_2 + 9/4\,c_1{}^2) + \frac{2187}{2}\,c_3 + 972\,c_2c_1 + 81\,c_1(27\,c_2 + \frac{81}{4}\,c_1{}^2)) + 13365\,c_2{}^4 + \frac{32805}{4}\,c_3c_5 + \frac{19683}{5}\,c_4{}^2 + \frac{14073345}{128}\,c_1{}^8 + 216513\,c_1{}^2c_2c_4 + \frac{360855}{2}\,c_1c_2{}^2c_3 - \frac{1082565}{28}\,c_6c_1{}^2 - \frac{2814669}{16}\,c_4c_1{}^4 + \frac{3247695}{32}\,c_1{}^2c_3{}^2 + \frac{360855}{4}\,c_5c_1{}^3 - \frac{32837805}{64}\,c_2c_1{}^6 + \frac{19702683}{64}\,c_3c_1{}^5 + \frac{10945935}{16}\,c_1{}^4c_2{}^2 - \frac{521235}{2}\,c_1{}^2c_3{}^3 + \frac{65610}{7}\,c_2c_6 - 24057\,c_2{}^2c_4 - \frac{360855}{16}\,c_2c_3{}^2 + (1/2\,c_1{}^2 - 1/3\,c_2)(\frac{81}{7}\,c_6 + 3/4\,c_3(9/2\,c_3 + 3\,c_2c_1) + c_2(c_2{}^2 + 9/4\,c_3c_1 + \frac{18}{5}\,c_4) + 3/5\,c_4(6\,c_2 + 9/4\,c_1{}^2) + \frac{18}{5}\,c_2c_4 + 9\,c_5c_1 + \frac{27}{16}\,c_3{}^2 + 3/2\,c_1(3/2\,c_2c_3 + 9/5\,c_4c_1 + 3\,c_5)) - \frac{120285}{2}\,c_1c_2c_5 - \frac{4691115}{8}\,c_1{}^3c_2c_3 - \frac{216513}{4}\,c_1c_3c_4 - \frac{6560}{3}\,c_8 + (\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)(243\,c_4 + 3/2\,c_1(18\,c_1(6\,c_2 + 9/4\,c_1{}^2) + 81\,c_3 + 54\,c_2c_1) + 54\,c_2{}^2 + 243\,c_3c_1 + 54\,c_1(9/2\,c_3 + 3\,c_2c_1) + 3\,(6\,c_2 + 9/4\,c_1{}^2)^2 + c_2(108\,c_2 + \frac{243}{2}\,c_1{}^2)) + (\frac{33}{16}\,c_1{}^6 - \frac{55}{8}\,c_2c_1{}^4 + \frac{15}{4}\,c_3c_1{}^3 + 5\,c_1{}^2c_2{}^2 - 9/5\,c_4c_1{}^2 - 3\,c_1c_2c_3 + 2/3\,c_5c_1 - 4/9\,c_2{}^3 + \frac{8}{15}\,c_2c_4 + 1/4\,c_3{}^2 - 1/7\,c_6)(5103\,c_2 + \frac{45927}{4}\,c_1{}^2) + \frac{98415}{8}\,c_7c_1 + (-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(27\,c_2c_3 + \frac{162}{5}\,c_4c_1 + 54\,c_5 + 18\,c_1(c_2{}^2 + 9/4\,c_3c_1 + \frac{18}{5}\,c_4) + 2\,(6\,c_2 + 9/4\,c_1{}^2)(9/2\,c_3 + 3\,c_2c_1)) + 26244\,(\frac{165}{16}\,c_1{}^2c_2c_3 - 1/8\,c_7 + \frac{9}{14}\,c_6c_1 - 3\,c_1c_2c_4 + \frac{9}{20}\,c_3c_4 + 1/2\,c_2c_5 - 5/4\,c_2{}^2c_3 + \frac{33}{8}\,c_4c_1{}^3 - \frac{45}{32}\,c_1c_3{}^2 - \frac{429}{128}\,c_1{}^7 - \frac{15}{8}\,c_5c_1{}^2 + \frac{429}{32}\,c_2c_1{}^5 - \frac{495}{64}\,c_3c_1{}^4 - \frac{55}{4}\,c_1{}^3c_2{}^2 + \frac{55}{18}\,c_1c_2{}^3)c_1 - 1/2\,c_1(9/4\,c_7 + \frac{9}{10}\,c_3c_4 + c_2c_5 + \frac{9}{7}\,c_6c_1))x^9 + O(x^{10}))$

$[4]_{MU}(x) = (4\,x - 6\,c_1x^2 + (-20\,c_2 + 24\,c_1{}^2)x^3 + (-63\,c_3 - 1/2\,c_1(\frac{32}{3}\,c_2 + 4\,c_1{}^2) + 96\,c_1(1/2\,c_1{}^2 - 1/3\,c_2) - 160\,c_1{}^3 + \frac{640}{3}\,c_2c_1)x^4 + (-1/2\,c_1(8\,c_3 + 16/3\,c_2c_1) + (1/2\,c_1{}^2 - 1/3\,c_2)(64\,c_2 + 48\,c_1{}^2) + 896\,c_1{}^4 - 1792\,c_2c_1{}^2 + 768\,c_3c_1 + \frac{1024}{3}\,c_2{}^2 - 204\,c_4 + 512\,(-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)c_1)x^5 + ((-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(\frac{1024}{3}\,c_2 + 384\,c_1{}^2) + (1/2\,c_1{}^2 - 1/3\,c_2)(2\,c_1(\frac{32}{3}\,c_2 + 4\,c_1{}^2) + 48\,c_3 + \frac{128}{3}\,c_2c_1) - 682\,c_5 - 5376\,c_1{}^5 + 14336\,c_2c_1{}^3 - 7168\,c_3c_1{}^2 - \frac{57344}{9}\,c_1c_2{}^2 + \frac{14336}{5}\,c_4c_1 + \frac{7168}{3}\,c_2c_3 + 2560\,(\frac{7}{8}\,c_1{}^4 - 7/4\,c_2c_1{}^2 + 3/4\,c_3c_1 + 1/3\,c_2{}^2 - 1/5\,c_4)c_1 - 1/2\,c_1(\frac{16}{9}\,c_2{}^2 + 4\,c_3c_1 + \frac{32}{5}\,c_4))x^6 + (33792\,c_1{}^6 - 112640\,c_2c_1{}^4 + 61440\,c_3c_1{}^3 + 81920\,c_1{}^2c_2{}^2 - \frac{147456}{5}\,c_4c_1{}^2 - 49152\,c_1c_2c_3 + \frac{32768}{3}\,c_5c_1 - \frac{65536}{9}\,c_2{}^3 + \frac{131072}{15}\,c_2c_4 + 4096\,c_3{}^2 - 2340\,c_6 + (-5/8\,c_1{}^3 + 5/6\,c_2c_1 - 1/4\,c_3)(32\,c_1(\frac{32}{3}\,c_2 + 4\,c_1{}^2) + 256\,c_3 + \frac{512}{3}\,c_2c_1) + (1/2\,c_1{}^2 -$

$$1/3\,c_2)(32\,c_3c_1+2\,c_1(8\,c_3+16/3\,c_2c_1)+\tfrac{64}{9}\,{c_2}^2+\tfrac{192}{5}\,c_4+4/3\,c_2(\tfrac{32}{3}\,c_2+4\,{c_1}^2))-1/2\,c_1(8/3\,c_2c_3+\tfrac{16}{5}\,c_4c_1+16/3\,c_5)+12288\,(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)c_1+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(2560\,{c_1}^2+\tfrac{5120}{3}\,c_2))x^7+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{512}{9}\,{c_2}^2+128\,c_3c_1+\tfrac{1024}{5}\,c_4+32\,c_1(8\,c_3+16/3\,c_2c_1)+(\tfrac{32}{3}\,c_2+4\,{c_1}^2)^2)+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(8192\,c_2+15360\,{c_1}^2)+57344\,(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)c_1-1/2\,c_1(\tfrac{32}{15}\,c_2c_4+\tfrac{32}{7}\,c_6+8/3\,c_5c_1+{c_3}^2)+675840\,{c_1}^2c_2c_3-\tfrac{16383}{2}\,c_7+\tfrac{294912}{7}\,c_6c_1-196608\,c_1c_2c_4+\tfrac{147456}{5}\,c_3c_4+32768\,c_2c_5-81920\,{c_2}^2c_3+270336\,c_4{c_1}^3-92160\,c_1{c_3}^2-219648\,{c_1}^7-122880\,c_5{c_1}^2+878592\,c_2{c_1}^5-506880\,c_3{c_1}^4-901120\,{c_1}^3{c_2}^2+\tfrac{1802240}{9}\,c_1{c_2}^3+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{128}{5}\,c_4c_1+c_3(\tfrac{32}{3}\,c_2+4\,{c_1}^2)+2\,c_1(\tfrac{16}{9}\,{c_2}^2+4\,c_3c_1+\tfrac{32}{5}\,c_4)+4/3\,c_2(8\,c_3+16/3\,c_2c_1)+\tfrac{32}{3}\,c_2c_3+32\,c_5)+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(2\,c_1(\tfrac{1024}{3}\,c_2+384\,{c_1}^2)+\tfrac{4096}{3}\,c_2c_1+128\,c_1(\tfrac{32}{3}\,c_2+4\,{c_1}^2)+1280\,c_3))x^8+(\tfrac{14417920}{81}\,{c_2}^4+\tfrac{327680}{3}\,c_3c_5+\tfrac{262144}{5}\,{c_4}^2+1464320\,{c_1}^8+2883584\,{c_1}^2c_2c_4+\tfrac{7208960}{3}\,c_1{c_2}^2c_3-\tfrac{3604480}{7}\,c_6{c_1}^2-2342912\,c_4{c_1}^4+1351680\,{c_1}^2{c_3}^2+\tfrac{3604480}{3}\,c_5{c_1}^3-\tfrac{20500480}{3}\,c_2{c_1}^6+4100096\,c_3{c_1}^5+\tfrac{82001920}{9}\,{c_1}^4{c_2}^2-\tfrac{93716480}{27}\,{c_1}^2{c_2}^3+\tfrac{2621440}{21}\,c_2c_6-\tfrac{2883584}{9}\,{c_2}^2c_4-\tfrac{901120}{3}\,c_2{c_3}^2-1/2\,c_1(4\,c_7+8/5\,c_3c_4+\tfrac{16}{9}\,c_2c_5+\tfrac{16}{7}\,c_6c_1)-\tfrac{7208960}{9}\,c_1c_2c_5-\tfrac{23429120}{3}\,{c_1}^3c_2c_3-720896\,c_1c_3c_4-\tfrac{87380}{3}\,c_8+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{256}{3}\,c_2c_3+\tfrac{512}{5}\,c_4c_1+\tfrac{512}{3}\,c_5+32\,c_1(\tfrac{16}{9}\,{c_2}^2+4\,c_3c_1+\tfrac{32}{5}\,c_4)+2\,(\tfrac{32}{3}\,c_2+4\,{c_1}^2)(8\,c_3+16/3\,c_2c_1))+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{192}{7}\,c_6+c_3(8\,c_3+16/3\,c_2c_1)+4/3\,c_2(\tfrac{16}{9}\,{c_2}^2+4\,c_3c_1+\tfrac{32}{5}\,c_4)+4/5\,c_4(\tfrac{32}{3}\,c_2+4\,{c_1}^2)+\tfrac{128}{15}\,c_2c_4+\tfrac{64}{3}\,c_5c_1+4\,{c_3}^2+2\,c_1(8/3\,c_2c_3+\tfrac{16}{5}\,c_4c_1+16/3\,c_5))+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(256\,c_1(\tfrac{32}{3}\,c_2+4\,{c_1}^2)+6144\,c_3+\tfrac{16384}{3}\,c_2c_1+192\,c_1(64\,c_2+48\,{c_1}^2))+(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)(\tfrac{114688}{3}\,c_2+86016\,{c_1}^2)+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(1024\,c_4+2\,c_1(32\,c_1(\tfrac{32}{3}\,c_2+4\,{c_1}^2)+256\,c_3+\tfrac{512}{3}\,c_2c_1)+\tfrac{2048}{9}\,{c_2}^2+1024\,c_3c_1+128\,c_1(8\,c_3+16/3\,c_2c_1)+4\,(\tfrac{32}{3}\,c_2+4\,{c_1}^2)^2+4/3\,c_2(\tfrac{1024}{3}\,c_2+384\,{c_1}^2))+163840\,c_7c_1+262144\,(\tfrac{165}{16}\,{c_1}^2c_2c_3-1/8\,c_7+\tfrac{9}{14}\,c_6c_1-3\,c_1c_2c_4+\tfrac{9}{20}\,c_3c_4+1/2\,c_2c_5-5/4\,{c_2}^2c_3+\tfrac{33}{8}\,c_4{c_1}^3-\tfrac{45}{32}\,c_1{c_3}^2-\tfrac{429}{128}\,{c_1}^7-\tfrac{15}{8}\,c_5{c_1}^2+\tfrac{429}{32}\,c_2{c_1}^5-\tfrac{495}{64}\,c_3{c_1}^4-\tfrac{55}{4}\,{c_1}^3{c_2}^2+\tfrac{55}{18}\,c_1{c_2}^3)c_1)x^9+O(x^{10}))$$

$$[5]_{MU}(x)=(5\,x-10\,c_1x^2+(-40\,c_2+50\,{c_1}^2)x^3+(-155\,c_3-1/2\,c_1(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)+\tfrac{375}{2}\,c_1(1/2\,{c_1}^2-1/3\,c_2)-\tfrac{3125}{8}\,{c_1}^3+\tfrac{3125}{6}\,c_2c_1)x^4+(-1/2\,c_1(\tfrac{25}{2}\,c_3+\tfrac{25}{3}\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(125\,c_2+\tfrac{375}{4}\,{c_1}^2)+\tfrac{21875}{8}\,{c_1}^4-\tfrac{21875}{4}\,c_2{c_1}^2+\tfrac{9375}{4}\,c_3c_1+\tfrac{3125}{3}\,{c_2}^2-624\,c_4+1250\,(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)c_1)x^5+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{2500}{3}\,c_2+\tfrac{1875}{2}\,{c_1}^2)+(1/2\,{c_1}^2-1/3\,c_2)(5/2\,c_1(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)+\tfrac{375}{4}\,c_3+\tfrac{250}{3}\,c_2c_1)-\tfrac{7810}{3}\,c_5-\tfrac{328125}{16}\,{c_1}^5+\tfrac{109375}{2}\,c_2{c_1}^3-\tfrac{109375}{4}\,c_3{c_1}^2-\tfrac{218750}{9}\,c_1{c_2}^2+\tfrac{21875}{2}\,c_4c_1+\tfrac{109375}{12}\,c_2c_3+\tfrac{15625}{2}\,(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)c_1-1/2\,c_1(\tfrac{25}{9}\,{c_2}^2+\tfrac{25}{4}\,c_3c_1+10\,c_4))x^6+(\tfrac{2578125}{16}\,{c_1}^6-\tfrac{4296875}{8}\,c_2{c_1}^4+\tfrac{1171875}{4}\,c_3{c_1}^3+390625\,{c_1}^2{c_2}^2-140625\,c_4{c_1}^2-234375\,c_1c_2c_3+\tfrac{156250}{3}\,c_5c_1-\tfrac{312500}{9}\,{c_2}^3+\tfrac{125000}{3}\,c_2c_4+\tfrac{78125}{4}\,{c_3}^2-11160\,c_6+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(50\,c_1(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)+625\,c_3+\tfrac{1250}{3}\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{125}{2}\,c_3c_1+5/2\,c_1(\tfrac{25}{2}\,c_3+\tfrac{25}{3}\,c_2c_1)+\tfrac{125}{9}\,{c_2}^2+75\,c_4+5/3\,c_2(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2))-1/2\,c_1(\tfrac{25}{6}\,c_2c_3+5\,c_4c_1+\tfrac{25}{3}\,c_5)+46875\,(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)c_1+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(\tfrac{15625}{2}\,{c_1}^2+\tfrac{15625}{3}\,c_2))x^7+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{1250}{9}\,{c_2}^2+\tfrac{625}{2}\,c_3c_1+500\,c_4+50\,c_1(\tfrac{25}{2}\,c_3+\tfrac{25}{3}\,c_2c_1)+(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)^2)+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(31250\,c_2+\tfrac{234375}{4}\,{c_1}^2)+\tfrac{546875}{2}\,(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)c_1-1/2\,c_1(10/3\,c_2c_4+\tfrac{50}{7}\,c_6+\tfrac{25}{6}\,c_5c_1+\tfrac{25}{16}\,{c_3}^2)+\tfrac{64453125}{16}\,{c_1}^2c_2c_3-\tfrac{97655}{2}\,c_7+\tfrac{3515625}{14}\,c_6c_1-1171875\,c_1c_2c_4+\tfrac{703125}{4}\,c_3c_4+\tfrac{390625}{2}\,c_2c_5-\tfrac{1953125}{4}\,{c_2}^2c_3+\tfrac{12890625}{8}\,c_4{c_1}^3-\tfrac{17578125}{32}\,c_1{c_3}^2-\tfrac{167578125}{128}\,{c_1}^7-\tfrac{5859375}{8}\,c_5{c_1}^2+\tfrac{167578125}{32}\,c_2{c_1}^5-\tfrac{193359375}{64}\,c_3{c_1}^4-\tfrac{21484375}{4}\,{c_1}^3{c_2}^2+\tfrac{21484375}{18}\,c_1{c_2}^3+$$

$$(1/2\,{c_1}^2-1/3\,c_2)(50\,c_4c_1+5/4\,c_3(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)+5/2\,c_1(\tfrac{25}{9}\,{c_2}^2+\tfrac{25}{4}\,c_3c_1+10\,c_4)+5/3\,c_2(\tfrac{25}{2}\,c_3+\tfrac{25}{3}\,c_2c_1)+\tfrac{125}{6}\,c_2c_3+\tfrac{125}{2}\,c_5)+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(5/2\,c_1(\tfrac{2500}{3}\,c_2+\tfrac{1875}{2}\,{c_1}^2)+\tfrac{12500}{3}\,c_2c_1+250\,c_1(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)+\tfrac{15625}{4}\,c_3))x^8+((\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(3125\,c_4+5/2\,c_1(50\,c_1(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)+625\,c_3+\tfrac{1250}{3}\,c_2c_1)+\tfrac{6250}{9}\,{c_2}^2+3125\,c_3c_1+250\,c_1(\tfrac{25}{2}\,c_3+\tfrac{25}{3}\,c_2c_1)+5\,(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)^2+5/3\,c_2(\tfrac{2500}{3}\,c_2+\tfrac{1875}{2}\,{c_1}^2))+\tfrac{107421875}{81}\,{c_2}^4+\tfrac{9765625}{12}\,c_3c_5+390625\,{c_4}^2+\tfrac{1396484375}{128}\,{c_1}^8+21484375\,{c_1}^2c_2c_4+\tfrac{107421875}{6}\,c_1{c_2}^2c_3-\tfrac{107421875}{28}\,c_6{c_1}^2-\tfrac{279296875}{16}\,c_4{c_1}^4+\tfrac{322265625}{32}\,{c_1}^2{c_2}^2+\tfrac{107421875}{12}\,c_5{c_1}^3-\tfrac{9775390625}{192}\,c_2{c_1}^6+\tfrac{1955078125}{64}\,c_3{c_1}^5+\tfrac{9775390625}{144}\,{c_1}^4{c_2}^2-\tfrac{1396484375}{54}\,{c_1}^2{c_2}^3+\tfrac{19531250}{21}\,c_2c_6-\tfrac{21484375}{9}\,{c_2}^2c_4-\tfrac{107421875}{48}\,c_2{c_3}^2-1/2\,c_1(\tfrac{25}{4}\,c_7+5/2\,c_3c_4+\tfrac{25}{9}\,c_2c_5+\tfrac{25}{7}\,c_6c_1)-\tfrac{107421875}{18}\,c_1c_2c_5-\tfrac{1396484375}{24}\,{c_1}^3c_2c_3-\tfrac{21484375}{4}\,c_1c_3c_4-\tfrac{651040}{3}\,c_8+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{625}{3}\,c_2c_3+250\,c_4c_1+\tfrac{1250}{3}\,c_5+50\,c_1(\tfrac{25}{9}\,{c_2}^2+\tfrac{25}{4}\,c_3c_1+10\,c_4)+2\,(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)(\tfrac{25}{2}\,c_3+\tfrac{25}{3}\,c_2c_1))+(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)(\tfrac{546875}{3}\,c_2+\tfrac{1640625}{4}\,{c_1}^2)+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(625\,c_1(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)+\tfrac{46875}{2}\,c_3+\tfrac{62500}{3}\,c_2c_1+375\,c_1(125\,c_2+\tfrac{375}{4}\,{c_1}^2))+\tfrac{9765625}{8}\,c_7c_1+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{375}{7}\,c_6+5/4\,c_3(\tfrac{25}{2}\,c_3+\tfrac{25}{3}\,c_2c_1)+5/3\,c_2(\tfrac{25}{9}\,{c_2}^2+\tfrac{25}{4}\,c_3c_1+10\,c_4)+c_4(\tfrac{50}{3}\,c_2+\tfrac{25}{4}\,{c_1}^2)+\tfrac{50}{3}\,c_2c_4+\tfrac{125}{3}\,c_5c_1+\tfrac{125}{16}\,{c_3}^2+5/2\,c_1(\tfrac{25}{6}\,c_2c_3+5\,c_4c_1+\tfrac{25}{3}\,c_5))+1562500\,(\tfrac{165}{16}\,{c_1}^2c_2c_3-1/8\,c_7+\tfrac{9}{14}\,c_6c_1-3\,c_1c_2c_4+\tfrac{9}{20}\,c_3c_4+1/2\,c_2c_5-5/4\,{c_2}^2c_3+\tfrac{33}{8}\,c_4{c_1}^3-\tfrac{45}{32}\,c_1{c_3}^2-\tfrac{429}{128}\,{c_1}^7-\tfrac{15}{8}\,c_5{c_1}^2+\tfrac{429}{32}\,c_2{c_1}^5-\tfrac{495}{64}\,c_3{c_1}^4-\tfrac{55}{4}\,{c_1}^3{c_2}^2+\tfrac{55}{18}\,c_1{c_2}^3)c_1)x^9+O(x^{10}))$$

$$[6]_{MU}(x)=(6\,x-15\,c_1x^2+(-70\,c_2+90\,{c_1}^2)x^3+(-\tfrac{645}{2}\,c_3-1/2\,c_1(24\,c_2+9\,{c_1}^2)+324\,c_1(1/2\,{c_1}^2-1/3\,c_2)-810\,{c_1}^3+1080\,c_2c_1)x^4+(-1/2\,c_1(18\,c_3+12\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(216\,c_2+162\,{c_1}^2)+6804\,{c_1}^4-13608\,c_2{c_1}^2+5832\,c_3c_1+2592\,{c_2}^2-1554\,c_4+2592\,(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)c_1)x^5+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(1728\,c_2+1944\,{c_1}^2)+(1/2\,{c_1}^2-1/3\,c_2)(3\,c_1(24\,c_2+9\,{c_1}^2)+162\,c_3+144\,c_2c_1)-7775\,c_5-61236\,c_1{}^5+163296\,c_2{c_1}^3-81648\,c_3{c_1}^2-72576\,c_1{c_2}^2+\tfrac{163296}{5}\,c_4c_1+27216\,c_2c_3+19440\,(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)c_1-1/2\,c_1(4\,{c_2}^2+9\,c_3c_1+\tfrac{72}{5}\,c_4))x^6+(577368\,{c_1}^6-1924560\,c_2{c_1}^4+1049760\,c_3{c_1}^3+1399680\,{c_1}^2{c_2}^2-\tfrac{2519424}{5}\,c_4{c_1}^2-839808\,c_1c_2c_3+186624\,c_5c_1-124416\,{c_2}^3+\tfrac{746496}{5}\,c_2c_4+69984\,{c_3}^2-39990\,c_6+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(72\,c_1(24\,c_2+9\,{c_1}^2)+1296\,c_3+864\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(108\,c_3c_1+3\,c_1(18\,c_3+12\,c_2c_1)+24\,{c_2}^2+\tfrac{648}{5}\,c_4+2\,c_2(24\,c_2+9\,{c_1}^2))-1/2\,c_1(6\,c_2c_3+\tfrac{36}{5}\,c_4c_1+12\,c_5)+139968\,(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)c_1+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(19440\,{c_1}^2+12960\,c_2))x^7+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(288\,{c_2}^2+648\,c_3c_1+\tfrac{5184}{5}\,c_4+72\,c_1(18\,c_3+12\,c_2c_1)+(24\,c_2+9\,{c_1}^2)^2)+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(93312\,c_2+174960\,{c_1}^2)+979776\,(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)c_1-1/2\,c_1(\tfrac{24}{5}\,c_2c_4+\tfrac{72}{7}\,c_6+6\,c_5c_1+9/4\,{c_3}^2)+17321040\,{c_1}^2c_2c_3-\tfrac{839805}{4}\,c_7+\tfrac{7558272}{7}\,c_6c_1-5038848\,c_1c_2c_4+\tfrac{3779136}{5}\,c_3c_4+839808\,c_2c_5-2099520\,{c_2}^2c_3+6928416\,c_4{c_1}^3-2361960\,c_1{c_3}^2-5629338\,{c_1}^7-3149280\,c_5{c_1}^2+22517352\,c_2{c_1}^5-12990780\,c_3{c_1}^4-23094720\,{c_1}^3{c_2}^2+5132160\,c_1{c_2}^3+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{432}{5}\,c_4c_1+3/2\,c_3(24\,c_2+9\,{c_1}^2)+3\,c_1(4\,{c_2}^2+9\,c_3c_1+\tfrac{72}{5}\,c_4)+2\,c_2(18\,c_3+12\,c_2c_1)+36\,c_2c_3+108\,c_5)+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(3\,c_1(1728\,c_2+1944\,{c_1}^2)+10368\,c_2c_1+432\,c_1(24\,c_2+9\,{c_1}^2)+9720\,c_3))x^8+(6842880\,{c_2}^4+4199040\,c_3c_5+\tfrac{10077696}{5}\,{c_4}^2+56293380\,{c_1}^8+110854656\,{c_1}^2c_2c_4+92378880\,c_1{c_2}^2c_3-\tfrac{138568320}{7}\,c_6{c_1}^2-90069408\,c_4{c_1}^4+51963120\,{c_1}^2{c_3}^2+46189440\,c_5{c_1}^3-262702440\,c_2{c_1}^6+157621464\,c_3{c_1}^5+350269920\,{c_1}^4{c_2}^2-133436160\,{c_1}^2{c_2}^3+\tfrac{33592320}{7}\,c_2c_6-12317184\,{c_2}^2c_4-11547360\,c_2{c_3}^2-30792960\,c_1c_2c_5-300231360\,{c_1}^3c_2c_3-27713664\,c_1c_3c_4-\tfrac{3359230}{3}\,c_8+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(7776\,c_4+3\,c_1(72\,c_1(24\,c_2+9\,{c_1}^2)+1296\,c_3+864\,c_2c_1)+1728\,{c_2}^2+7776\,c_3c_1+432\,c_1(18\,c_3+12\,c_2c_1)+6\,(24\,c_2+9\,{c_1}^2)^2+2\,c_2(1728\,c_2+1944\,{c_1}^2))+$$

$$(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(432\,{c_2}c_3+\tfrac{2592}{5}\,c_4c_1+864\,c_5+72\,c_1(4\,{c_2}^2+9\,c_3c_1+\tfrac{72}{5}\,c_4)+2\,(24\,c_2+9\,{c_1}^2)(18\,c_3+12\,c_2c_1))+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{648}{7}\,c_6+3/2\,c_3(18\,c_3+12\,c_2c_1)+2\,c_2(4\,{c_2}^2+9\,c_3c_1+\tfrac{72}{5}\,c_4)+6/5\,c_4(24\,c_2+9\,{c_1}^2)+\tfrac{144}{5}\,c_2c_4+72\,c_5c_1+\tfrac{27}{2}\,{c_3}^2+3\,c_1(6\,c_2c_3+\tfrac{36}{5}\,c_4c_1+12\,c_5))-1/2\,c_1(9\,c_7+\tfrac{18}{5}\,c_3c_4+4\,c_2c_5+\tfrac{36}{7}\,c_6c_1)+6298560\,c_7c_1+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(1296\,c_1(24\,c_2+9\,{c_1}^2)+69984\,c_3+62208\,c_2c_1+648\,c_1(216\,c_2+162\,{c_1}^2))+(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)(653184\,c_2+1469664\,{c_1}^2)+6718464\,(\tfrac{165}{16}\,{c_1}^2c_2c_3-1/8\,c_7+\tfrac{9}{14}\,c_6c_1-3\,c_1c_2c_4+\tfrac{9}{20}\,c_3c_4+1/2\,c_2c_5-5/4\,{c_2}^2c_3+\tfrac{33}{8}\,c_4{c_1}^3-\tfrac{45}{32}\,c_1{c_3}^2-\tfrac{429}{128}\,{c_1}^7-\tfrac{15}{8}\,c_5{c_1}^2+\tfrac{429}{32}\,c_2{c_1}^5-\tfrac{495}{64}\,c_3{c_1}^4-\tfrac{55}{4}\,{c_1}^3{c_2}^2+\tfrac{55}{18}\,c_1{c_2}^3)c_1)x^9+O(x^{10}))$$

$$[7]_{MU}(x)=(7\,x-21\,c_1x^2+(-112\,c_2+147\,{c_1}^2)x^3+(-\tfrac{1197}{2}\,c_3-1/2\,c_1(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)+\tfrac{1029}{2}\,c_1(1/2\,{c_1}^2-1/3\,c_2)-\tfrac{12005}{8}\,{c_1}^3+\tfrac{12005}{6}\,c_2c_1)x^4+(-1/2\,c_1(\tfrac{49}{2}\,c_3+\tfrac{49}{3}\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(343\,c_2+\tfrac{1029}{4}\,{c_1}^2)+\tfrac{117649}{8}\,{c_1}^4-\tfrac{117649}{4}\,c_2{c_1}^2+\tfrac{50421}{4}\,c_3c_1+\tfrac{16807}{3}\,{c_2}^2-3360\,c_4+4802\,(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)c_1)x^5+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{9604}{3}\,c_2+\tfrac{7203}{2}\,{c_1}^2)+(1/2\,{c_1}^2-1/3\,c_2)(7/2\,c_1(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)+\tfrac{1029}{4}\,c_3+\tfrac{686}{3}\,c_2c_1)-19607\,c_5-\tfrac{2470629}{16}\,{c_1}^5+\tfrac{823543}{2}\,c_2{c_1}^3-\tfrac{823543}{4}\,c_3{c_1}^2-\tfrac{1647086}{9}\,c_1{c_2}^2+\tfrac{823543}{10}\,c_4c_1+\tfrac{823543}{12}\,c_2c_3+\tfrac{84035}{2}\,(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)c_1-1/2\,c_1(\tfrac{49}{9}\,{c_2}^2+\tfrac{49}{4}\,c_3c_1+\tfrac{98}{5}\,c_4))x^6+(\tfrac{27176919}{16}\,{c_1}^6-\tfrac{45294865}{8}\,c_2{c_1}^4+\tfrac{12353145}{4}\,c_3{c_1}^3+4117715\,{c_1}^2{c_2}^2-\tfrac{7411887}{5}\,c_4{c_1}^2-2470629\,c_1c_2c_3+\tfrac{1647086}{3}\,c_5c_1-\tfrac{3294172}{9}\,{c_2}^3+\tfrac{6588344}{15}\,c_2c_4+\tfrac{823543}{4}\,{c_3}^2-117648\,c_6+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(98\,c_1(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)+2401\,c_3+\tfrac{4802}{3}\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{343}{2}\,c_3c_1+7/2\,c_1(\tfrac{49}{2}\,c_3+\tfrac{49}{3}\,c_2c_1)+\tfrac{343}{9}\,{c_2}^2+\tfrac{1029}{5}\,c_4+7/3\,c_2(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2))-1/2\,c_1(\tfrac{49}{6}\,c_2c_3+\tfrac{49}{5}\,c_4c_1+\tfrac{49}{3}\,c_5)+352947\,(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)c_1+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(\tfrac{84035}{2}\,{c_1}^2+\tfrac{84035}{3}\,c_2))x^7+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{4802}{9}\,{c_2}^2+\tfrac{2401}{2}\,c_3c_1+\tfrac{9604}{5}\,c_4+98\,c_1(\tfrac{49}{2}\,c_3+\tfrac{49}{3}\,c_2c_1)+(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)^2)+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(235298\,c_2+\tfrac{1764735}{4}\,{c_1}^2)+\tfrac{5764801}{2}\,(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)c_1-1/2\,c_1(\tfrac{98}{15}\,c_2c_4+14\,c_6+\tfrac{49}{6}\,c_5c_1+\tfrac{49}{16}\,{c_3}^2)+\tfrac{951192165}{16}\,{c_1}^2c_2c_3-\tfrac{2882397}{4}\,c_7+\tfrac{7411887}{2}\,c_6c_1-17294403\,c_1c_2c_4+\tfrac{51883209}{20}\,c_3c_4+\tfrac{5764801}{2}\,c_2c_5-\tfrac{28824005}{4}\,{c_2}^2c_3+\tfrac{190238433}{8}\,c_4{c_1}^3-\tfrac{259416045}{32}\,c_1{c_3}^2-\tfrac{2473099629}{128}\,{c_1}^7-\tfrac{86472015}{8}\,c_5{c_1}^2+\tfrac{2473099629}{32}\,c_2{c_1}^5-\tfrac{2853576495}{64}\,c_3{c_1}^4-\tfrac{317064055}{4}\,{c_1}^3{c_2}^2+\tfrac{317064055}{18}\,c_1{c_2}^3+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{686}{5}\,c_4c_1+7/4\,c_3(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)+7/2\,c_1(\tfrac{49}{9}\,{c_2}^2+\tfrac{49}{4}\,c_3c_1+\tfrac{98}{5}\,c_4)+7/3\,c_2(\tfrac{49}{2}\,c_3+\tfrac{49}{3}\,c_2c_1)+\tfrac{343}{6}\,c_2c_3+\tfrac{343}{2}\,c_5)+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(7/2\,c_1(\tfrac{9604}{3}\,c_2+\tfrac{7203}{2}\,{c_1}^2)+\tfrac{67228}{3}\,c_2c_1+686\,c_1(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)+\tfrac{84035}{4}\,c_3))x^8+(\tfrac{2219448385}{81}\,{c_2}^4+\tfrac{201768035}{12}\,c_3c_5+\tfrac{40353607}{5}\,{c_4}^2+\tfrac{28852829005}{128}\,{c_1}^8+443889677\,{c_1}^2c_2c_4+\tfrac{2219448385}{6}\,c_1{c_2}^2c_3-\tfrac{317064055}{4}\,c_6{c_1}^2-\tfrac{5770565801}{16}\,c_4{c_1}^4+\tfrac{6658345155}{32}\,{c_1}^2{c_3}^2+\tfrac{2219448385}{12}\,c_5{c_1}^3-\tfrac{201969803035}{192}\,c_2{c_1}^6+\tfrac{40393960607}{48}\,c_3{c_1}^5+\tfrac{201969803035}{144}\,{c_1}^4{c_2}^2-\tfrac{28852829005}{54}\,{c_1}^2{c_2}^3+\tfrac{57648010}{3}\,c_2c_6-\tfrac{443889677}{9}\,{c_2}^2c_4-\tfrac{2219448385}{48}\,c_2{c_3}^2+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(16807\,c_4+7/2\,c_1(98\,c_1(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)+2401\,c_3+\tfrac{4802}{3}\,c_2c_1)+\tfrac{33614}{9}\,{c_2}^2+16807\,c_3c_1+686\,c_1(\tfrac{49}{2}\,c_3+\tfrac{49}{3}\,c_2c_1)+7\,(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)^2+7/3\,c_2(\tfrac{9604}{3}\,c_2+\tfrac{7203}{2}\,{c_1}^2))+(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)(\tfrac{5764801}{3}\,c_2+\tfrac{17294403}{4}\,{c_1}^2)+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(2401\,c_1(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)+\tfrac{352947}{2}\,c_3+\tfrac{470596}{3}\,c_2c_1+1029\,c_1(343\,c_2+\tfrac{1029}{4}\,{c_1}^2))-\tfrac{2219448385}{18}\,c_1c_2c_5-\tfrac{28852829005}{24}\,{c_1}^3c_2c_3-\tfrac{443889677}{4}\,c_1c_3c_4-\tfrac{13451200}{3}\,c_8+(1/2\,{c_1}^2-1/3\,c_2)(147\,c_6+7/4\,c_3(\tfrac{49}{2}\,c_3+\tfrac{49}{3}\,c_2c_1)+7/3\,c_2(\tfrac{49}{9}\,{c_2}^2+\tfrac{49}{4}\,c_3c_1+\tfrac{98}{5}\,c_4)+7/5\,c_4(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)+\tfrac{686}{15}\,c_2c_4+\tfrac{343}{3}\,c_5c_1+\tfrac{343}{16}\,{c_3}^2+7/2\,c_1(\tfrac{49}{6}\,c_2c_3+\tfrac{49}{5}\,c_4c_1+\tfrac{49}{3}\,c_5))+\tfrac{201768035}{8}\,c_7c_1+23059204\,(\tfrac{165}{16}\,{c_1}^2c_2c_3-1/8\,c_7+\tfrac{9}{14}\,c_6c_1-3\,c_1c_2c_4+\tfrac{9}{20}\,c_3c_4+1/2\,c_2c_5-5/4\,{c_2}^2c_3+\tfrac{33}{8}\,c_4{c_1}^3-\tfrac{45}{32}\,c_1{c_3}^2-\tfrac{429}{128}\,{c_1}^7-\tfrac{15}{8}\,c_5{c_1}^2+\tfrac{429}{32}\,c_2{c_1}^5-\tfrac{495}{64}\,c_3{c_1}^4-\tfrac{55}{4}\,{c_1}^3{c_2}^2+\tfrac{55}{18}\,c_1{c_2}^3)c_1-1/2\,c_1(\tfrac{49}{4}\,c_7+\tfrac{49}{10}\,c_3c_4+\tfrac{49}{9}\,c_2c_5+7\,c_6c_1)+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{2401}{3}\,c_2c_3+\tfrac{4802}{5}\,c_4c_1+\tfrac{4802}{3}\,c_5+98\,c_1(\tfrac{49}{9}\,{c_2}^2+\tfrac{49}{4}\,c_3c_1+\tfrac{98}{5}\,c_4)+2\,(\tfrac{98}{3}\,c_2+\tfrac{49}{4}\,{c_1}^2)(\tfrac{49}{2}\,c_3+\tfrac{49}{3}\,c_2c_1)))x^9+O(x^{10}))$$

$$[8]_{MU}(x)=(8\,x-28\,c_1x^2+(-168\,c_2+224\,{c_1}^2)x^3+(-1022\,c_3-1/2\,c_1(\tfrac{128}{3}\,c_2+16\,{c_1}^2)+768\,c_1(1/2\,{c_1}^2-1/3\,c_2)-2560\,{c_1}^3+\tfrac{10240}{3}\,c_2c_1)x^4+(-1/2\,c_1(32\,c_3+\tfrac{64}{3}\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(512\,c_2+384\,{c_1}^2)+28672\,{c_1}^4-57344\,c_2{c_1}^2+24576\,c_3c_1+\tfrac{32768}{3}\,{c_2}^2-6552\,c_4+8192\,(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)c_1)x^5+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{16384}{3}\,c_2+6144\,{c_1}^2)+(1/2\,{c_1}^2-1/3\,c_2)(4\,c_1(\tfrac{128}{3}\,c_2+16\,{c_1}^2)+384\,c_3+\tfrac{1024}{3}\,c_2c_1)-\tfrac{131068}{3}\,c_5-344064\,{c_1}^5+917504\,c_2{c_1}^3-458752\,c_3{c_1}^2-\tfrac{3670016}{9}\,c_1{c_2}^2+\tfrac{917504}{5}\,c_4c_1+\tfrac{458752}{3}\,c_2c_3+81920\,(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)c_1-1/2\,c_1(\tfrac{64}{9}\,{c_2}^2+16\,c_3c_1+\tfrac{128}{5}\,c_4))x^6+(4325376\,{c_1}^6-14417920\,c_2{c_1}^4+7864320\,c_3{c_1}^3+10485760\,{c_1}^2{c_2}^2-\tfrac{18874368}{5}\,c_4{c_1}^2-6291456\,c_1c_2c_3+\tfrac{4194304}{3}\,c_5c_1-\tfrac{8388608}{9}\,{c_2}^3+\tfrac{16777216}{15}\,c_2c_4+524288\,{c_3}^2-299592\,c_6+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(128\,c_1(\tfrac{128}{3}\,c_2+16\,{c_1}^2)+4096\,c_3+\tfrac{8192}{3}\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(256\,c_3c_1+4\,c_1(32\,c_3+\tfrac{64}{3}\,c_2c_1)+\tfrac{512}{9}\,{c_2}^2+\tfrac{1536}{5}\,c_4+8/3\,c_2(\tfrac{128}{3}\,c_2+16\,{c_1}^2))-1/2\,c_1(\tfrac{32}{3}\,c_2c_3+\tfrac{64}{5}\,c_4c_1+\tfrac{64}{3}\,c_5)+786432\,(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)c_1+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(81920\,{c_1}^2+\tfrac{163840}{3}\,c_2))x^7+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{8192}{9}\,{c_2}^2+2048\,c_3c_1+\tfrac{16384}{5}\,c_4+128\,c_1(32\,c_3+\tfrac{64}{3}\,c_2c_1)+(\tfrac{128}{3}\,c_2+16\,{c_1}^2)^2)+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(524288\,c_2+983040\,{c_1}^2)+7340032\,(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)c_1-1/2\,c_1(\tfrac{128}{15}\,c_2c_4+\tfrac{128}{7}\,c_6+\tfrac{32}{3}\,c_5c_1+4\,{c_3}^2)+173015040\,{c_1}^2c_2c_3-2097151\,c_7+\tfrac{75497472}{7}\,c_6c_1-50331648\,c_1c_2c_4+\tfrac{37748736}{5}\,c_3c_4+8388608\,c_2c_5-20971520\,{c_2}^2c_3+69206016\,c_4{c_1}^3-23592960\,c_1{c_3}^2-56229888\,{c_1}^7-31457280\,c_5{c_1}^2+224919552\,c_2{c_1}^5-129761280\,c_3{c_1}^4-230686720\,{c_1}^3{c_2}^2+\tfrac{461373440}{9}\,c_1{c_2}^3+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{1024}{5}\,c_4c_1+2\,c_3(\tfrac{128}{3}\,c_2+16\,{c_1}^2)+4\,c_1(\tfrac{64}{9}\,{c_2}^2+16\,c_3c_1+\tfrac{128}{5}\,c_4)+8/3\,c_2(32\,c_3+\tfrac{64}{3}\,c_2c_1)+\tfrac{256}{3}\,c_2c_3+256\,c_5)+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(4\,c_1(\tfrac{16384}{3}\,c_2+6144\,{c_1}^2)+\tfrac{131072}{3}\,c_2c_1+1024\,c_1(\tfrac{128}{3}\,c_2+16\,{c_1}^2)+40960\,c_3))x^8+(\tfrac{7381975040}{81}\,{c_2}^4+\tfrac{167772160}{3}\,c_3c_5+\tfrac{134217728}{5}\,{c_4}^2+749731840\,{c_1}^8+1476395008\,{c_1}^2c_2c_4+\tfrac{3690987520}{3}\,c_1{c_2}^2c_3-\tfrac{1845493760}{7}\,c_6{c_1}^2-1199570944\,c_4{c_1}^4+692060160\,{c_1}^2{c_3}^2+\tfrac{1845493760}{3}\,c_5{c_1}^3-\tfrac{10496245760}{3}\,c_2{c_1}^6+2099249152\,c_3{c_1}^5+\tfrac{41984983040}{9}\,{c_1}^4{c_2}^2-\tfrac{47982837760}{27}\,{c_1}^2{c_2}^3+\tfrac{1342177280}{21}\,c_2c_6-\tfrac{1476395008}{9}\,{c_2}^2c_4-\tfrac{461373440}{3}\,c_2{c_3}^2-\tfrac{3690987520}{9}\,c_1c_2c_5-1/2\,c_1(16\,c_7+\tfrac{32}{5}\,c_3c_4+\tfrac{64}{9}\,c_2c_5+\tfrac{64}{7}\,c_6c_1)-\tfrac{11995709440}{3}\,c_1{c_3}^2c_3-369098752\,c_1c_3c_4+(1/2\,{c_1}^2-1/3\,c_2)(\tfrac{1536}{7}\,c_6+2\,c_3(32\,c_3+\tfrac{64}{3}\,c_2c_1)+8/3\,c_2(\tfrac{64}{9}\,{c_2}^2+16\,c_3c_1+\tfrac{128}{5}\,c_4)+8/5\,c_4(\tfrac{128}{3}\,c_2+16\,{c_1}^2)+\tfrac{1024}{15}\,c_2c_4+\tfrac{512}{3}\,c_5c_1+32\,{c_3}^2+4\,c_1(\tfrac{32}{3}\,c_2c_3+\tfrac{64}{5}\,c_4c_1+\tfrac{64}{3}\,c_5))-14913080\,c_8+(-\tfrac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\tfrac{14}{9}\,c_1{c_2}^2+\tfrac{7}{10}\,c_4c_1+\tfrac{7}{12}\,c_2c_3-1/6\,c_5)(4096\,c_1(\tfrac{128}{3}\,c_2+16\,{c_1}^2)+393216\,c_3+\tfrac{1048576}{3}\,c_2c_1+1536\,c_1(512\,c_2+384\,{c_1}^2))+(\tfrac{33}{16}\,{c_1}^6-\tfrac{55}{8}\,c_2{c_1}^4+\tfrac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\tfrac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)(\tfrac{14680064}{3}\,c_2+11010048\,{c_1}^2)+(\tfrac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(32768\,c_4+4\,c_1(128\,c_1(\tfrac{128}{3}\,c_2+16\,{c_1}^2)+4096\,c_3+\tfrac{8192}{3}\,c_2c_1)+\tfrac{65536}{9}\,{c_2}^2+32768\,c_3c_1+1024\,c_1(32\,c_3+\tfrac{64}{3}\,c_2c_1)+8\,(\tfrac{128}{3}\,c_2+16\,{c_1}^2)^2+8/3\,c_2(\tfrac{16384}{3}\,c_2+6144\,{c_1}^2))+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\tfrac{4096}{3}\,c_2c_3+\tfrac{8192}{5}\,c_4c_1+\tfrac{8192}{3}\,c_5+128\,c_1(\tfrac{64}{9}\,{c_2}^2+16\,c_3c_1+\tfrac{128}{5}\,c_4)+2\,(\tfrac{128}{3}\,c_2+16\,{c_1}^2)(32\,c_3+\tfrac{64}{3}\,c_2c_1))+83886080\,c_7c_1+67108864\,(\tfrac{165}{16}\,{c_1}^2c_2c_3-1/8\,c_7+\tfrac{9}{14}\,c_6c_1-3\,c_1c_2c_4+\tfrac{9}{20}\,c_3c_4+1/2\,c_2c_5-5/4\,{c_2}^2c_3+\tfrac{33}{8}\,c_4{c_1}^3-\tfrac{45}{32}\,c_1{c_3}^2-\tfrac{429}{128}\,{c_1}^7-\tfrac{15}{8}\,c_5{c_1}^2+\tfrac{429}{32}\,c_2{c_1}^5-\tfrac{495}{64}\,c_3{c_1}^4-\tfrac{55}{4}\,{c_1}^3{c_2}^2+\tfrac{55}{18}\,c_1{c_2}^3)c_1)x^9+O(x^{10}))$$

$$[9]_{MU}(x)=(9\,x-36\,c_1x^2+(-240\,c_2+324\,{c_1}^2)x^3+(-1638\,c_3-1/2\,c_1(54\,c_2+\tfrac{81}{4}\,{c_1}^2)+\tfrac{2187}{2}\,c_1(1/2\,{c_1}^2-1/3\,c_2)-\tfrac{32805}{8}\,{c_1}^3+\tfrac{10935}{2}\,c_2c_1)x^4+(-1/2\,c_1(\tfrac{81}{2}\,c_3+27\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(729\,c_2+\tfrac{2187}{4}\,{c_1}^2)+\tfrac{413343}{8}\,{c_1}^4-\tfrac{413343}{4}\,c_2{c_1}^2+\tfrac{177147}{4}\,c_3c_1+19683\,{c_2}^2-11808\,c_4+13122\,(-5/8\,{c_1}^3+5/6\,c_2c_1-$$

$1/4\,c_3)c_1)x^5+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(8748\,c_2+\frac{19683}{2}\,{c_1}^2)+(1/2\,{c_1}^2-1/3\,c_2)(9/2\,c_1(54\,c_2+\frac{81}{4}\,{c_1}^2)+\frac{2187}{4}\,c_3+486\,c_2c_1)-88572\,c_5-\frac{11160261}{16}\,{c_1}^5+\frac{3720087}{2}\,c_2{c_1}^3-\frac{3720087}{4}\,c_3{c_1}^2-826686\,c_1{c_2}^2+\frac{3720087}{10}\,c_4c_1+\frac{1240029}{4}\,c_2c_3+\frac{295245}{2}\,(\frac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)c_1-1/2\,c_1(9\,{c_2}^2+\frac{81}{4}\,c_3c_1+\frac{162}{5}\,c_4))x^6+(\frac{157837977}{16}\,{c_1}^6-\frac{263063295}{8}\,c_2{c_1}^4+\frac{71744535}{4}\,c_3{c_1}^3+23914845\,{c_1}^2{c_2}^2-\frac{43046721}{5}\,c_4{c_1}^2-14348907\,c_1c_2c_3+3188646\,c_5c_1-2125764\,{c_2}^3+\frac{12754584}{5}\,c_2c_4+\frac{4782969}{4}\,{c_3}^2-683280\,c_6+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(162\,c_1(54\,c_2+\frac{81}{4}\,{c_1}^2)+6561\,c_3+4374\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(\frac{729}{2}\,c_3c_1+9/2\,c_1(\frac{81}{2}\,c_3+27\,c_2c_1)+81\,{c_2}^2+\frac{2187}{5}\,c_4+3\,c_2(54\,c_2+\frac{81}{4}\,{c_1}^2))-1/2\,c_1(\frac{27}{2}\,c_2c_3+\frac{81}{5}\,c_4c_1+27\,c_5)+1594323\,(-\frac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\frac{14}{9}\,c_1{c_2}^2+\frac{7}{10}\,c_4c_1+\frac{7}{12}\,c_2c_3-1/6\,c_5)c_1+(\frac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(\frac{295245}{2}\,{c_1}^2+98415\,c_2))x^7+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(1458\,{c_2}^2+\frac{6561}{2}\,c_3c_1+\frac{26244}{5}\,c_4+162\,c_1(\frac{81}{2}\,c_3+27\,c_2c_1)+(54\,c_2+\frac{81}{4}\,{c_1}^2)^2)+(-\frac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\frac{14}{9}\,c_1{c_2}^2+\frac{7}{10}\,c_4c_1+\frac{7}{12}\,c_2c_3-1/6\,c_5)(1062882\,c_2+\frac{7971615}{4}\,{c_1}^2)+\frac{33480783}{2}\,(\frac{33}{16}\,{c_1}^6-\frac{55}{8}\,c_2{c_1}^4+\frac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\frac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)c_1-1/2\,c_1(\frac{54}{5}\,c_2c_4+\frac{162}{7}\,c_6+\frac{27}{2}\,c_5c_1+\frac{81}{16}\,{c_3}^2)+\frac{7102708965}{16}\,{c_1}^2c_2c_3-5380839\,c_7+\frac{387420489}{14}\,c_6c_1-129140163\,c_1c_2c_4+\frac{387420489}{20}\,c_3c_4+\frac{43046721}{2}\,c_2c_5-\frac{215233605}{4}\,{c_2}^2c_3+\frac{1420541793}{8}\,c_4{c_1}^3-\frac{1937102445}{32}\,c_1{c_3}^2-\frac{18467043309}{128}\,{c_1}^7-\frac{645700815}{8}\,c_5{c_1}^2+\frac{18467043309}{32}\,c_2{c_1}^5-\frac{21308126895}{64}\,c_3{c_1}^4-\frac{2367569655}{4}\,{c_1}^3{c_2}^2+\frac{263063295}{2}\,c_1{c_2}^3+(1/2\,{c_1}^2-1/3\,c_2)(\frac{1458}{5}\,c_4c_1+9/4\,c_3(54\,c_2+\frac{81}{4}\,{c_1}^2)+9/2\,c_1(9\,{c_2}^2+\frac{81}{4}\,c_3c_1+\frac{162}{5}\,c_4)+3\,c_2(\frac{81}{2}\,c_3+27\,c_2c_1)+\frac{243}{2}\,c_2c_3+\frac{729}{2}\,c_5)+(\frac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(9/2\,c_1(8748\,c_2+\frac{19683}{2}\,{c_1}^2)+78732\,c_2c_1+1458\,c_1(54\,c_2+\frac{81}{4}\,{c_1}^2)+\frac{295245}{4}\,c_3))x^8+(263063295\,{c_2}^4+\frac{645700815}{4}\,c_3c_5+\frac{387420489}{5}\,{c_4}^2+\frac{277005649635}{128}\,{c_1}^8+4261625379\,{c_1}^2c_2c_4+\frac{7102708965}{2}\,c_1{c_2}^2c_3-\frac{21308126895}{28}\,c_6{c_1}^2-\frac{55401129927}{16}\,c_4{c_1}^4+\frac{63924380685}{32}\,{c_1}^2{c_3}^2+\frac{7102708965}{4}\,c_5{c_1}^3-\frac{646346515815}{64}\,c_2{c_1}^6+\frac{387807909489}{64}\,c_3{c_1}^5+\frac{215448838605}{16}\,{c_1}^4{c_2}^2-\frac{10259468505}{2}\,{c_1}^2{c_2}^3+\frac{1291401630}{7}\,c_2c_6-473513931\,{c_2}^2c_4-\frac{7102708965}{16}\,c_2{c_3}^2-\frac{2367569655}{2}\,c_1c_2c_5+(\frac{33}{16}\,{c_1}^6-\frac{55}{8}\,c_2{c_1}^4+\frac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\frac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)(11160261\,c_2+\frac{100442349}{4}\,{c_1}^2)+(-\frac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\frac{14}{9}\,c_1{c_2}^2+\frac{7}{10}\,c_4c_1+\frac{7}{12}\,c_2c_3-1/6\,c_5)(6561\,c_1(54\,c_2+\frac{81}{4}\,{c_1}^2)+\frac{1594323}{2}\,c_3+708588\,c_2c_1+2187\,c_1(729\,c_2+\frac{2187}{4}\,{c_1}^2))+(\frac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(59049\,c_4+9/2\,c_1(162\,c_1(54\,c_2+\frac{81}{4}\,{c_1}^2)+6561\,c_3+4374\,c_2c_1)+13122\,{c_2}^2+59049\,c_3c_1+1458\,c_1(\frac{81}{2}\,c_3+27\,c_2c_1)+9\,(54\,c_2+\frac{81}{4}\,{c_1}^2)^2+3\,c_2(8748\,c_2+\frac{19683}{2}\,{c_1}^2))-\frac{92335216545}{8}\,{c_1}^3c_2c_3-\frac{4261625379}{4}\,c_1c_3c_4-43046720\,c_8+(1/2\,{c_1}^2-1/3\,c_2)(\frac{2187}{7}\,c_6+9/4\,c_3(\frac{81}{2}\,c_3+27\,c_2c_1)+3\,c_2(9\,{c_2}^2+\frac{81}{4}\,c_3c_1+\frac{162}{5}\,c_4)+9/5\,c_4(54\,c_2+\frac{81}{4}\,{c_1}^2)+\frac{486}{5}\,c_2c_4+243\,c_5c_1+\frac{729}{16}\,{c_3}^2+9/2\,c_1(\frac{27}{2}\,c_2c_3+\frac{81}{5}\,c_4c_1+27\,c_5))+\frac{1937102445}{8}\,c_7c_1-1/2\,c_1(\frac{81}{4}\,c_7+\frac{81}{10}\,c_3c_4+9\,c_2c_5+\frac{81}{7}\,c_6c_1)+172186884\,(\frac{165}{16}\,{c_1}^2c_2c_3-1/8\,c_7+\frac{9}{14}\,c_6c_1-3\,c_1c_2c_4+\frac{9}{20}\,c_3c_4+1/2\,c_2c_5-5/4\,{c_2}^2c_3+\frac{33}{8}\,c_4{c_1}^3-\frac{45}{32}\,c_1{c_3}^2-\frac{429}{128}\,{c_1}^7-\frac{15}{8}\,c_5{c_1}^2+\frac{429}{32}\,c_2{c_1}^5-\frac{495}{64}\,c_3{c_1}^4-\frac{55}{4}\,{c_1}^3{c_2}^2+\frac{55}{18}\,c_1{c_2}^3)c_1+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(2187\,c_2c_3+\frac{13122}{5}\,c_4c_1+4374\,c_5+162\,c_1(9\,{c_2}^2+\frac{81}{4}\,c_3c_1+\frac{162}{5}\,c_4)+2\,(54\,c_2+\frac{81}{4}\,{c_1}^2)(\frac{81}{2}\,c_3+27\,c_2c_1)))x^9+O(x^{10}))$

$[10]_{MU}(x)=$
$(10\,x-45\,c_1x^2+(-330\,c_2+450\,{c_1}^2)x^3+(-\frac{4995}{2}\,c_3-1/2\,c_1(\frac{200}{3}\,c_2+25\,{c_1}^2)+1500\,c_1(1/2\,{c_1}^2-1/3\,c_2)-6250\,{c_1}^3+\frac{25000}{3}\,c_2c_1)x^4+(-1/2\,c_1(50\,c_3+\frac{100}{3}\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(1000\,c_2+750\,{c_1}^2)+87500\,{c_1}^4-175000\,c_2{c_1}^2+75000\,c_3c_1+\frac{100000}{3}\,{c_2}^2-19998\,c_4+20000\,(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)c_1)x^5+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\frac{40000}{3}\,c_2+15000\,{c_1}^2)+(1/2\,{c_1}^2-1/3\,c_2)(5\,c_1(\frac{200}{3}\,c_2+25\,{c_1}^2)+750\,c_3+\frac{2000}{3}\,c_2c_1)-166665\,c_5-1312500\,{c_1}^5+3500000\,c_2{c_1}^3-1750000\,c_3{c_1}^2-\frac{14000000}{9}\,c_1{c_2}^2+700000\,c_4c_1+\frac{1750000}{3}\,c_2c_3+250000\,(\frac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)c_1-1/2\,c_1(\frac{100}{9}\,{c_2}^2+25\,c_3c_1+40\,c_4))x^6+(20625000\,{c_1}^6-68750000\,c_2{c_1}^4+37500000\,c_3{c_1}^3+50000000\,{c_1}^2{c_2}^2-18000000\,c_4{c_1}^2-30000000\,c_1c_2c_3+\frac{20000000}{3}\,c_5c_1-\frac{40000000}{9}\,{c_2}^3+\frac{16000000}{3}\,c_2c_4+2500000\,{c_3}^2-1428570\,c_6+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(200\,c_1(\frac{200}{3}\,c_2+25\,{c_1}^2)+10000\,c_3+\frac{20000}{3}\,c_2c_1)+(1/2\,{c_1}^2-1/3\,c_2)(500\,c_3c_1+5\,c_1(50\,c_3+\frac{100}{3}\,c_2c_1)+\frac{1000}{9}\,{c_2}^2+600\,c_4+10/3\,c_2(\frac{200}{3}\,c_2+25\,{c_1}^2))-1/2\,c_1(\frac{50}{3}\,c_2c_3+20\,c_4c_1+\frac{100}{3}\,c_5)+3000000\,(-\frac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\frac{14}{9}\,c_1{c_2}^2+\frac{7}{10}\,c_4c_1+\frac{7}{12}\,c_2c_3-1/6\,c_5)c_1+(\frac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(250000\,{c_1}^2+\frac{500000}{3}\,c_2))x^7+((-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\frac{20000}{9}\,{c_2}^2+5000\,c_3c_1+8000\,c_4+200\,c_1(50\,c_3+\frac{100}{3}\,c_2c_1)+(\frac{200}{3}\,c_2+25\,{c_1}^2)^2)+(-\frac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\frac{14}{9}\,c_1{c_2}^2+\frac{7}{10}\,c_4c_1+\frac{7}{12}\,c_2c_3-1/6\,c_5)(2000000\,c_2+3750000\,{c_1}^2)+35000000\,(\frac{33}{16}\,{c_1}^6-\frac{55}{8}\,c_2{c_1}^4+\frac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\frac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)c_1-1/2\,c_1(\frac{40}{3}\,c_2c_4+\frac{200}{7}\,c_6+\frac{50}{3}\,c_5c_1+\frac{25}{4}\,{c_3}^2)+1031250000\,{c_1}^2c_2c_3-\frac{49999995}{4}\,c_7+\frac{450000000}{7}\,c_6c_1-300000000\,c_1c_2c_4+45000000\,c_3c_4+50000000\,c_2c_5-125000000\,{c_2}^2c_3+412500000\,c_4{c_1}^3-140625000\,c_1{c_3}^2-335156250\,{c_1}^7-187500000\,c_5{c_1}^2+1340625000\,c_2{c_1}^5-773437500\,c_3{c_1}^4-1375000000\,{c_1}^3{c_2}^2+\frac{2750000000}{9}\,c_1{c_2}^3+(1/2\,{c_1}^2-1/3\,c_2)(400\,c_4c_1+5/2\,c_3(\frac{200}{3}\,c_2+25\,{c_1}^2)+5\,c_1(\frac{100}{9}\,{c_2}^2+25\,c_3c_1+40\,c_4)+10/3\,c_2(50\,c_3+\frac{100}{3}\,c_2c_1)+\frac{500}{3}\,c_2c_3+500\,c_5)+(\frac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(5\,c_1(\frac{40000}{3}\,c_2+15000\,{c_1}^2)+\frac{400000}{3}\,c_2c_1+2000\,c_1(\frac{200}{3}\,c_2+25\,{c_1}^2)+125000\,c_3))x^8+(\frac{55000000000}{81}\,{c_2}^4+\frac{1250000000}{3}\,c_3c_5+200000000\,{c_4}^2+5585937500\,{c_1}^8+11000000000\,{c_1}^2c_2c_4+\frac{27500000000}{3}\,c_1{c_2}^2c_3-\frac{13750000000}{7}\,c_6{c_1}^2-8937500000\,c_4{c_1}^4+5156250000\,{c_1}^2{c_2}^3+\frac{13750000000}{3}\,c_5{c_1}^3-\frac{78203125000}{3}\,c_2{c_1}^6+15640625000\,c_3{c_1}^5+\frac{312812500000}{9}\,{c_1}^4{c_2}^2-\frac{357500000000}{27}\,{c_1}^2{c_2}^3+\frac{100000000000}{21}\,c_2c_6-\frac{11000000000}{9}\,{c_2}^2c_4-\frac{3437500000}{3}\,c_2{c_3}^2+(1/2\,{c_1}^2-1/3\,c_2)(\frac{3000}{7}\,c_6+5/2\,c_3(50\,c_3+\frac{100}{3}\,c_2c_1)+10/3\,c_2(\frac{100}{9}\,{c_2}^2+25\,c_3c_1+40\,c_4)+2\,c_4(\frac{200}{3}\,c_2+25\,{c_1}^2)+\frac{400}{3}\,c_2c_4+\frac{1000}{3}\,c_5c_1+\frac{125}{2}\,{c_3}^2+5\,c_1(\frac{50}{3}\,c_2c_3+20\,c_4c_1+\frac{100}{3}\,c_5))-1/2\,c_1(25\,c_7+10\,c_3c_4+\frac{100}{9}\,c_2c_5+\frac{100}{7}\,c_6c_1)+(\frac{7}{8}\,{c_1}^4-7/4\,c_2{c_1}^2+3/4\,c_3c_1+1/3\,{c_2}^2-1/5\,c_4)(100000\,c_4+5\,c_1(200\,c_1(\frac{200}{3}\,c_2+25\,{c_1}^2)+10000\,c_3+\frac{20000}{3}\,c_2c_1)+\frac{200000}{9}\,{c_2}^2+100000\,c_3c_1+2000\,c_1(50\,c_3+\frac{100}{3}\,c_2c_1)+10\,(\frac{200}{3}\,c_2+25\,{c_1}^2)^2+10/3\,c_2(\frac{40000}{3}\,c_2+15000\,{c_1}^2))+(-5/8\,{c_1}^3+5/6\,c_2c_1-1/4\,c_3)(\frac{10000}{3}\,c_2c_3+4000\,c_4c_1+\frac{20000}{3}\,c_5+200\,c_1(\frac{100}{9}\,{c_2}^2+25\,c_3c_1+40\,c_4)+2\,(\frac{200}{3}\,c_2+25\,{c_1}^2)(50\,c_3+\frac{100}{3}\,c_2c_1))-\frac{27500000000}{9}\,c_1c_2c_5+(-\frac{21}{16}\,{c_1}^5+7/2\,c_2{c_1}^3-7/4\,c_3{c_1}^2-\frac{14}{9}\,c_1{c_2}^2+\frac{7}{10}\,c_4c_1+\frac{7}{12}\,c_2c_3-1/6\,c_5)(10000\,c_1(\frac{200}{3}\,c_2+25\,{c_1}^2)+1500000\,c_3+\frac{4000000}{3}\,c_2c_1+3000\,c_1(1000\,c_2+750\,{c_1}^2))+(\frac{33}{16}\,{c_1}^6-\frac{55}{8}\,c_2{c_1}^4+\frac{15}{4}\,c_3{c_1}^3+5\,{c_1}^2{c_2}^2-9/5\,c_4{c_1}^2-3\,c_1c_2c_3+2/3\,c_5c_1-4/9\,{c_2}^3+\frac{8}{15}\,c_2c_4+1/4\,{c_3}^2-1/7\,c_6)(\frac{70000000}{3}\,c_2+52500000\,{c_1}^2)-\frac{89375000000}{3}\,{c_1}^3c_2c_3-2750000000\,c_1c_3c_4-111111110\,c_8+625000000\,c_7c_1+400000000\,(\frac{165}{16}\,{c_1}^2c_2c_3-1/8\,c_7+\frac{9}{14}\,c_6c_1-3\,c_1c_2c_4+\frac{9}{20}\,c_3c_4+1/2\,c_2c_5-5/4\,{c_2}^2c_3+\frac{33}{8}\,c_4{c_1}^3-\frac{45}{32}\,c_1{c_3}^2-\frac{429}{128}\,{c_1}^7-\frac{15}{8}\,c_5{c_1}^2+\frac{429}{32}\,c_2{c_1}^5-\frac{495}{64}\,c_3{c_1}^4-\frac{55}{4}\,{c_1}^3{c_2}^2+\frac{55}{18}\,c_1{c_2}^3)c_1)x^9+O(x^{10}))$

6.2. $F_U(x,y)$ **over** $\mathbb{Z}[U]$.

```
> restart: with(powseries): with(numtheory,divisors):
> # Let's define the function nu(d)
> nu:=proc(d)
> if ( nops(ifactors(d)[2]) > 1 ) then return(1);
> else return(ifactors(d)[2][1][1]); end if;
> end proc;
> # Let's define the function c(p,d)
> c:=proc(p,d)
> local k;
> for k from 1 to (p-1)
> do
> if (d=1) then return(1);
> elif (d=p) then return(1);
> elif (d=p^2) then return(1);
> elif (d=p^3) then return(1);
> elif (d=p^4) then return(1);
> elif (d=p^5) then return(1);
> elif (d=p^6) then return(1);
> elif (d=p^7) then return(1);
> elif (d=p^8) then return(1);
> # there's got to be a better way to make this work,
> # but I don't care right now, just as long as it does work!
> # right now it only works for sure up to d=511 = 2^9 - 1.
> elif (k*nu(d) mod p = 1) then return (k*nu(d));
> end if;
> od;
> end proc;
> # Let's define the function mu(n,d),
  # and an ancillary function
> primedivisors:=proc(d)
> # prime divisors: return a list of the prime
  # divisors of a number, not its multiplicity
> [seq(ifactors(d)[2][j][1],j=1..nops(ifactors(d)[2]))];
> end proc;
> mu:=proc(n,d)
> mul(c(primedivisors(n)[j],d),j=1..nops(primedivisors(n)));
> end proc:
> # Let's define another function
> pd:=proc(n)
> # return a list of the proper divisors of n
  # (those divisors not equal to 1 or n)
> [op(divisors(n) minus {1,n})];
> end proc;
> # Next, define b_n(U) as a function
```



```
> b:=n->simplify((u[n] + add( (mu(n,pd(n)[j]) * nu(n) )
  /nu(pd(n)[j]) * b(n/pd(n)[j]) * u[pd(n)[j]]^(n/pd(n)[j]),
  j=1..nops(pd(n))))/nu(n));
> f_U:=x-> x + add(b(n)*x^n,n=2..30);
> latex(%);
> logU:=powpoly(f_U(x),x);
> expU:=reversion(logU);
> t:=10: # compute series to O(t), i.e. mod degree t.
> e_U:=x->convert(simplify(tpsform(expU,x,t)),polynom);
> e_U(x);
> latex(%);
> F_U:=(x,y)->sort(simplify(mtaylor(subs(z=f_U(x)+f_U(y),
  e_U(z)),[x,y],t)), [x,y]);
> F_U(x,y);
> latex(%);
```

The results of these computations are that logarithm $\log_U(x)$ equals

$$x + 1/2\,u_2x^2 + 1/3\,u_3x^3 + (1/4\,{u_2}^3 + 1/2\,u_4)x^4 + 1/5\,u_5x^5 + (2/3\,{u_2}^3u_3 + 1/2\,u_2{u_3}^2 + u_6)x^6 + 1/7\,u_7x^7 + (1/8\,{u_2}^7 + 1/4\,{u_2}^4u_4 + 1/4\,u_2{u_4}^2 + 1/2\,u_8)x^8 + (1/9\,{u_3}^4 + 1/3\,u_9)x^9 + (3/5\,{u_2}^5u_5 + 1/2\,u_2{u_5}^2 + u_{10})x^{10} + 1/11\,u_{11}x^{11} + (4/3\,{u_2}^9u_3 + {u_2}^7{u_3}^2 + 2\,{u_2}^6u_6 + 1/4\,{u_2}^3{u_3}^4 + 1/2\,{u_3}^4u_4 + 2/3\,u_3{u_4}^3 + 1/2\,u_2{u_6}^2 + u_{12})x^{12} + 1/13\,u_{13}x^{13} + (4/7\,{u_2}^7u_7 + 1/2\,u_2{u_7}^2 + u_{14})x^{14} + (2/5\,{u_3}^5u_5 + 2/3\,u_3{u_5}^3 + u_{15})x^{15} + (1/16\,{u_2}^{15} + 1/8\,{u_2}^{12}u_4 + 1/8\,{u_2}^9{u_4}^2 + 1/4\,{u_2}^8u_8 + 1/8\,{u_2}^3{u_4}^4 + 1/4\,{u_4}^5 + 1/4\,u_2{u_8}^2 + 1/2\,u_{16})x^{16} + 1/17\,u_{17}x^{17} + (2/9\,{u_2}^9{u_3}^4 + 2/3\,{u_2}^9u_9 + 2/3\,{u_2}^3{u_3}^7 + 1/2\,u_2{u_3}^8 + {u_3}^6u_6 + 1/3\,u_3{u_6}^3 + 1/2\,u_2{u_9}^2 + u_{18})x^{18} + 1/19\,u_{19}x^{19} + (9/5\,{u_2}^{15}u_5 + 3/2\,{u_2}^{11}{u_5}^2 + 3\,{u_2}^{10}u_{10} + 1/4\,{u_2}^3{u_5}^4 + 3/5\,{u_4}^5u_5 + 1/2\,u_4{u_5}^4 + 1/2\,u_2{u_{10}}^2 + u_{20})x^{20} + (5/7\,{u_3}^7u_7 + 1/3\,u_3{u_7}^3 + u_{21})x^{21} + (\tfrac{6}{11}\,{u_2}^{11}u_{11} + 1/2\,u_2{u_{11}}^2 + u_{22})x^{22} + 1/23\,u_{23}x^{23} + (8/3\,{u_2}^{21}u_3 + 2\,{u_2}^{19}{u_3}^2 + 4\,{u_2}^{18}u_6 + 1/2\,{u_2}^{15}{u_3}^4 + {u_2}^{12}{u_3}^4u_4 + 4/3\,{u_2}^{12}u_3{u_4}^3 + {u_2}^{13}{u_6}^2 + 1/8\,{u_2}^7{u_3}^8 + 2\,{u_2}^{12}u_{12} + 1/4\,{u_2}^4{u_3}^8u_4 + 1/4\,u_2{u_3}^8{u_4}^2 + 4/3\,{u_2}^3u_3u_4{}^6 + u_2{u_3}^2{u_4}^6 + 1/2\,{u_3}^8u_8 + 1/4\,{u_2}^3{u_6}^4 + 2\,{u_4}^6u_6 + 1/2\,u_4{u_6}^4 + 2/3\,u_3{u_8}^3 + 1/2\,u_2{u_{12}}^2 + u_{24})x^{24} + (1/25\,{u_5}^6 + 1/5\,u_{25})x^{25} + (\tfrac{7}{13}\,{u_2}^{13}u_{13} + 1/2\,u_2{u_{13}}^2 + u_{26})x^{26} + (1/27\,{u_3}^{13} + 1/9\,{u_3}^9u_9 + 1/9\,u_3{u_9}^3 + 1/3\,u_{27})x^{27} + (\tfrac{16}{7}\,{u_2}^{21}u_7 + 2\,{u_2}^{15}{u_7}^2 + 4\,{u_2}^{14}u_{14} + 4/7\,{u_4}^7u_7 + 1/4\,{u_2}^3{u_7}^4 + 1/2\,u_4{u_7}^4 + 1/2\,u_2{u_{14}}^2 + u_{28})x^{28} + 1/29\,u_{29}x^{29} + (\tfrac{24}{5}\,{u_2}^{15}{u_3}^5u_5 + 8\,{u_2}^{15}u_3{u_5}^3 + 12\,{u_2}^{15}u_{15} + \tfrac{18}{5}\,{u_2}^5{u_3}^{10}u_5 + 3\,u_2{u_3}^{10}{u_5}^2 + 6\,{u_3}^{10}u_{10} + \tfrac{20}{3}\,{u_2}^3u_3{u_5}^6 + 5\,u_2{u_3}^2{u_5}^6 + 10\,{u_5}^6u_6 + 1/5\,u_5{u_6}^5 + 1/3\,u_3{u_{10}}^3 + 1/2\,u_2{u_{15}}^2 + u_{30})x^{30}$$

The formal group law $F_U(x,y)$ equals

$$x + y$$

$$-u_2xy$$

$$-u_3x^2y + u_2{}^2x^2y + u_2{}^2xy^2 - u_3xy^2$$

$$-2\,{u_2}^3x^3y + 2\,u_3u_2x^3y - 2\,u_4x^3y + 4\,u_3u_2x^2y^2 - 3\,u_4x^2y^2 - 4\,{u_2}^3x^2y^2 - 2\,{u_2}^3xy^3 - 2\,u_4xy^3 + 2\,u_3u_2xy^3$$

$$+4\,u_2u_4x^4y - 3\,u_3{u_2}^2x^4y + {u_3}^2x^4y - u_5x^4y + 3\,{u_2}^4x^4y + 3\,{u_3}^2x^3y^2 - 2\,u_5x^3y^2 + 11\,u_2u_4x^3y^2 + 10\,{u_2}^4x^3y^2 - 11\,u_3{u_2}^2x^3y^2 + 11\,u_2u_4x^2y^3 - 2\,u_5x^2y^3 - 11\,u_3{u_2}^2x^2y^3 + 3\,{u_3}^2x^2y^3 + 10\,{u_2}^4x^2y^3 + 4\,u_2u_4xy^4 - u_5xy^4 + {u_3}^2xy^4 - 3\,u_3{u_2}^2xy^4 + 3\,{u_2}^4xy^4$$

$$+2\,u_5u_2x^5y - 6\,{u_2}^2u_4x^5y + 2\,u_3{u_2}^3x^5y - 6\,u_6x^5y - 6\,{u_3}^2u_2x^5y - 4\,{u_2}^5x^5y + 4\,u_3u_4x^5y - 22\,{u_3}^2u_2x^4y^2 + 21\,u_3{u_2}^3x^4y^2 - 15\,u_6x^4y^2 + 7\,u_5u_2x^4y^2 - 28\,{u_2}^2u_4x^4y^2 + 15\,u_3u_4x^4y^2 - 21\,{u_2}^5x^4y^2 + 22\,u_3u_4x^3y^3 - 33\,{u_3}^2u_2x^3y^3 - 20\,u_6x^3y^3 - 34\,{u_2}^5x^3y^3 + 10\,u_5u_2x^3y^3 - 43\,{u_2}^2u_4x^3y^3 + 37\,u_3{u_2}^3x^3y^3 +$$

$$7\,u_5u_2x^2y^4 - 28\,u_2^2u_4x^2y^4 - 22\,u_3^2u_2x^2y^4 + 15\,u_3u_4x^2y^4 - 21\,u_2^5x^2y^4 - 15\,u_6x^2y^4 + 21\,u_3u_2^3x^2y^4 - 6\,u_6xy^5 - 6\,u_3^2u_2xy^5 + 2\,u_3u_2^3xy^5 + 2\,u_5u_2xy^5 - 4\,u_2^5xy^5 - 6\,u_2^2u_4xy^5 + 4\,u_3u_4xy^5$$

$$-u_3^3x^6y + 4\,u_4^2x^6y + 6\,u_2^6x^6y + 12\,u_2u_6x^6y - 3\,u_5u_2^2x^6y + 12\,u_2^3u_4x^6y - u_7x^6y + 12\,u_3^2u_2^2x^6y - 12\,u_2u_3u_4x^6y + 2\,u_3u_5x^6y - 3\,u_3u_2^4x^6y - 17\,u_5u_2^2x^5y^2 + 51\,u_2u_6x^5y^2 + 18\,u_4^2x^5y^2 + 43\,u_2^6x^5y^2 + 69\,u_3^2u_2^2x^5y^2 + 75\,u_2^3u_4x^5y^2 + 9\,u_3u_5x^5y^2 - 44\,u_3u_2^4x^5y^2 - 6\,u_3^3x^5y^2 - 3\,u_7x^5y^2 - 70\,u_2u_3u_4x^5y^2 + 95\,u_2u_6x^4y^3 - 13\,u_3^3x^4y^3 - 119\,u_3u_2^4x^4y^3 + 149\,u_3^2u_2^2x^4y^3 + 101\,u_2^6x^4y^3 - 35\,u_5u_2^2x^4y^3 + 17\,u_3u_5x^4y^3 + 34\,u_4^2x^4y^3 - 147\,u_2u_3u_4x^4y^3 + 164\,u_2^3u_4x^4y^3 - 5\,u_7x^4y^3 + 34\,u_4^2x^3y^4 + 17\,u_3u_5x^3y^4 + 95\,u_2u_6x^3y^4 + 149\,u_3^2u_2^2x^3y^4 - 35\,u_5u_2^2x^3y^4 + 164\,u_2^3u_4x^3y^4 - 147\,u_2u_3u_4x^3y^4 + 101\,u_2^6x^3y^4 - 5\,u_7x^3y^4 - 13\,u_3^3x^3y^4 - 119\,u_3u_2^4x^3y^4 - 44\,u_3u_2^4x^2y^5 + 18\,u_4^2x^2y^5 - 3\,u_7x^2y^5 + 75\,u_2^3u_4x^2y^5 + 69\,u_3^2u_2^2x^2y^5 + 43\,u_2^6x^2y^5 + 51\,u_2u_6x^2y^5 - 17\,u_5u_2^2x^2y^5 + 9\,u_3u_5x^2y^5 - 6\,u_3^3x^2y^5 - 70\,u_2u_3u_4x^2y^5 + 12\,u_2u_6xy^6 + 4\,u_4^2xy^6 + 2\,u_3u_5xy^6 - u_7xy^6 - u_3^3xy^6 - 12\,u_2u_3u_4xy^6 + 6\,u_2^6xy^6 + 12\,u_3^2u_2^2xy^6 - 3\,u_5u_2^2xy^6 + 12\,u_2^3u_4xy^6 - 3\,u_3u_2^4xy^6$$

$$+4\,u_4u_5x^7y + 10\,u_2u_3^3x^7y - 6\,u_3^2u_4x^7y + 24\,u_2^2u_3u_4x^7y - 6\,u_2u_3u_5x^7y + 12\,u_3u_6x^7y + 6\,u_3u_2^5x^7y - 4\,u_8x^7y - 18\,u_2^2u_6x^7y + 6\,u_5u_2^3x^7y - 10\,u_2^7x^7y + 2\,u_7u_2x^7y - 14\,u_3^2u_2^3x^7y - 14\,u_4^2u_2x^7y - 24\,u_4u_2^4x^7y + 66\,u_2u_3^3x^6y^2 + 63\,u_3u_6x^6y^2 + 21\,u_4u_5x^6y^2 - 120\,u_2^2u_6x^6y^2 - 88\,u_2^7x^6y^2 - 41\,u_2u_3u_5x^6y^2 - 42\,u_3^2u_4x^6y^2 + 204\,u_2^2u_3u_4x^6y^2 + 44\,u_5u_2^3x^6y^2 - 89\,u_4^2u_2x^6y^2 - 14\,u_8x^6y^2 + 93\,u_3u_2^5x^6y^2 - 141\,u_3^2u_2^3x^6y^2 + 10\,u_7u_2x^6y^2 - 190\,u_4u_2^4x^6y^2 - 447\,u_3^2u_2^3x^5y^3 - 107\,u_2u_3u_5x^5y^3 - 275\,u_2^7x^5y^3 + 596\,u_2^2u_3u_4x^5y^3 + 146\,u_3u_6x^5y^3 - 112\,u_3^2u_4x^5y^3 - 28\,u_8x^5y^3 + 344\,u_3u_2^5x^5y^3 + 176\,u_2u_3^3x^5y^3 - 551\,u_4u_2^4x^5y^3 + 121\,u_5u_2^3x^5y^3 + 48\,u_4u_5x^5y^3 - 226\,u_4^2u_2x^5y^3 + 23\,u_7u_2x^5y^3 - 311\,u_2^2u_6x^5y^3 + 513\,u_3u_2^5x^4y^4 + 831\,u_2^2u_3u_4x^4y^4 + 240\,u_2u_3^3x^4y^4 + 166\,u_5u_2^3x^4y^4 - 641\,u_3^2u_2^3x^4y^4 + 30\,u_7u_2x^4y^4 - 302\,u_4^2u_2x^4y^4 - 420\,u_2^2u_6x^4y^4 - 394\,u_2^7x^4y^4 + 62\,u_4u_5x^4y^4 - 35\,u_8x^4y^4 + 190\,u_3u_6x^4y^4 - 769\,u_4u_2^4x^4y^4 - 152\,u_3^2u_4x^4y^4 - 144\,u_2u_3u_5x^4y^4 + 48\,u_4u_5x^3y^5 - 551\,u_4u_2^4x^3y^5 + 176\,u_2u_3^3x^3y^5 - 112\,u_3^2u_4x^3y^5 + 146\,u_3u_6x^3y^5 + 596\,u_2^2u_3u_4x^3y^5 - 226\,u_4^2u_2x^3y^5 - 107\,u_2u_3u_5x^3y^5 + 121\,u_5u_2^3x^3y^5 - 447\,u_3^2u_2^3x^3y^5 - 311\,u_2^2u_6x^3y^5 + 344\,u_3u_2^5x^3y^5 + 23\,u_7u_2x^3y^5 - 275\,u_2^7x^3y^5 - 28\,u_8x^3y^5 - 88\,u_2^7x^2y^6 - 120\,u_2^2u_6x^2y^6 - 89\,u_4^2u_2x^2y^6 - 14\,u_8x^2y^6 - 141\,u_3^2u_2^3x^2y^6 - 190\,u_4u_2^4x^2y^6 + 204\,u_2^2u_3u_4x^2y^6 + 10\,u_7u_2x^2y^6 + 93\,u_3u_2^5x^2y^6 + 63\,u_3u_6x^2y^6 - 42\,u_3^2u_4x^2y^6 + 66\,u_2u_3^3x^2y^6 - 41\,u_2u_3u_5x^2y^6 + 21\,u_4u_5x^2y^6 + 44\,u_5u_2^3x^2y^6 + 4\,u_4u_5xy^7 + 10\,u_2u_3^3xy^7 + 24\,u_2^2u_3u_4xy^7 - 18\,u_2^2u_6xy^7 + 6\,u_5u_2^3xy^7 + 12\,u_3u_6xy^7 - 6\,u_3^2u_4xy^7 - 10\,u_2^7xy^7 - 4\,u_8xy^7 - 24\,u_4u_2^4xy^7 + 6\,u_3u_2^5xy^7 - 14\,u_4^2u_2xy^7 - 6\,u_2u_3u_5xy^7 - 14\,u_3^2u_2^3xy^7 + 2\,u_7u_2xy^7$$

$$15\,u_2^8x^8y + u_5^2x^8y - 3\,u_9x^8y - 6\,u_3u_2^6x^8y + 21\,u_3^2u_2^4x^8y + 36\,u_2^3u_6x^8y - 11\,u_5u_2^4x^8y - 28\,u_2^2u_3^3x^8y - 12\,u_3u_4^2x^8y + 2\,u_3u_7x^8y + 12\,u_2^2u_3u_5x^8y - 36\,u_2^3u_3u_4x^8y + 40\,u_4u_2^5x^8y + 28\,u_4^2u_2^2x^8y + 8\,u_2u_8x^8y - 3\,u_7u_2^2x^8y + 24\,u_4u_6x^8y - 36\,u_2u_3u_6x^8y - 3\,u_3^2u_5x^8y - 12\,u_2u_4u_5x^8y + 36\,u_2u_3^2u_4x^8y - 12\,u_9x^7y^2 + 117\,u_2^2u_3u_5x^7y^2 + 144\,u_4u_6x^7y^2 + 6\,u_5^2x^7y^2 - 94\,u_2u_4u_5x^7y^2 + 257\,u_4^2u_2^2x^7y^2 - 24\,u_3^2u_5x^7y^2 - 23\,u_7u_2^2x^7y^2 - 96\,u_3u_4^2x^7y^2 + 12\,u_3u_7x^7y^2 + 46\,u_2u_8x^7y^2 - 105\,u_5u_2^4x^7y^2 - 165\,u_3u_2^6x^7y^2 + 287\,u_3^2u_2^4x^7y^2 + 303\,u_2^3u_6x^7y^2 + 6\,u_3^4x^7y^2 - 259\,u_2^2u_3^3x^7y^2 - 282\,u_2u_3u_6x^7y^2 + 169\,u_2^8x^6y^3 + 1234\,u_3u_2^6x^6y^3 + 126\,u_2u_8x^6y^3 - 372\,u_5u_2^4x^6y^3 + 1008\,u_2^3u_6x^6y^3 + 1038\,u_2u_3^2u_4x^6y^3 - 289\,u_2u_4u_5x^6y^3 + 1586\,u_4u_2^5x^6y^3 - 883\,u_2u_3u_6x^6y^3 - 72\,u_7u_2^2x^6y^3 - 845\,u_3u_2^6x^6y^3 - 76\,u_3^2u_5x^6y^3 + 388\,u_4u_6x^6y^3 - 1884\,u_2^3u_3u_4x^6y^3 + 33\,u_3u_7x^6y^3 + 879\,u_4^2u_2^2x^6y^3 + 680\,u_2^8x^6y^3 + 27\,u_3^4x^6y^3 + 412\,u_2^2u_3u_5x^6y^3 - 28\,u_9x^6y^3 + 16\,u_5^2x^6y^3 - 3554\,u_2^3u_3u_4x^5y^4 - 482\,u_2u_4u_5x^5y^4 - 42\,u_9x^5y^4 + 734\,u_2^2u_3u_5x^5y^4 + 2417\,u_3^2u_2^4x^5y^4 - 1754\,u_3u_2^6x^5y^4 + 1819\,u_2u_3^2u_4x^5y^4 + 612\,u_4u_6x^5y^4 + 1303\,u_2^8x^5y^4 - 1497\,u_2u_3u_6x^5y^4 + 1767\,u_3^2u_6x^5y^4 - 123\,u_7u_2^2x^5y^4 + 1543\,u_4^2u_2^2x^5y^4 - 1640\,u_2^2u_3^3x^5y^4 + 203\,u_2u_8x^5y^4 + 53\,u_3u_7x^5y^4 - 668\,u_5u_2^4x^5y^4 - 511\,u_3u_4^2x^5y^4 + 52\,u_3^4x^5y^4 - 129\,u_3^2u_5x^5y^4 + 25\,u_5^2x^5y^4 + 2933\,u_4u_2^5x^5y^4 + 1767\,u_2^3u_6x^4y^5 + 2933\,u_4u_2^5x^4y^5 - 3554\,u_2^3u_3u_4x^4y^5 + 2417\,u_3^2u_2^4x^4y^5 - 668\,u_5u_2^4x^4y^5 + 1303\,u_2^8x^4y^5 - 123\,u_7u_2^2x^4y^5 - 129\,u_3^2u_5x^4y^5 + 734\,u_2^2u_3u_5x^4y^5 - 1497\,u_2u_3u_6x^4y^5 - 1754\,u_3u_2^6x^4y^5 + 203\,u_2u_8x^4y^5 -$$

$$482\,u_2u_4u_5x^4y^5 - 511\,u_3u_4^2x^4y^5 + 52\,u_3^4x^4y^5 + 1819\,u_2u_3^2u_4x^4y^5 + 612\,u_4u_6x^4y^5 - 1640\,u_2^2u_3^3x^4y^5 + 1543\,u_4^2u_2^2x^4y^5 + 53\,u_3u_7x^4y^5 - 42\,u_9x^4y^5 + 25\,u_5^2x^4y^5 + 16\,u_5^2x^3y^6 + 388\,u_4u_6x^3y^6 - 76\,u_3^2u_5x^3y^6 + 126\,u_2u_8x^3y^6 - 28\,u_9x^3y^6 + 680\,u_2^8x^3y^6 + 33\,u_3u_7x^3y^6 + 412\,u_2^2u_3u_5x^3y^6 + 27\,u_3^4x^3y^6 - 845\,u_3u_2^6x^3y^6 - 883\,u_2u_3u_6x^3y^6 - 289\,u_2u_4u_5x^3y^6 - 72\,u_7u_2^2x^3y^6 - 372\,u_5u_2^4x^3y^6 + 1234\,u_3^2u_2^4x^3y^6 - 1884\,u_2^3u_3u_4x^3y^6 + 1586\,u_4u_2^5x^3y^6 + 879\,u_4^2u_2^2x^3y^6 + 1008\,u_2^3u_6x^3y^6 - 912\,u_2^2u_3^3x^3y^6 + 1038\,u_2u_3^2u_4x^3y^6 - 302\,u_3u_4^2x^3y^6 + 303\,u_2^3u_6x^2y^7 - 105\,u_5u_2^4x^2y^7 - 96\,u_3u_4^2x^2y^7 + 287\,u_3^2u_2^4x^2y^7 + 169\,u_2^8x^2y^7 + 6\,u_3^4x^2y^7 - 259\,u_2^2u_3^3x^2y^7 + 6\,u_5^2x^2y^7 - 94\,u_2u_4u_5x^2y^7 + 117\,u_2^2u_3u_5x^2y^7 + 12\,u_3u_7x^2y^7 + 46\,u_2u_8x^2y^7 - 165\,u_3u_2^6x^2y^7 + 309\,u_2u_3^2u_4x^2y^7 + 257\,u_4^2u_2^2x^2y^7 - 12\,u_9x^2y^7 - 24\,u_3^2u_5x^2y^7 + 144\,u_4u_6x^2y^7 - 468\,u_2^3u_3u_4x^2y^7 - 23\,u_7u_2^2x^2y^7 - 282\,u_2u_3u_6x^2y^7 + 420\,u_4u_2^5x^2y^7 - 12\,u_3u_4^2xy^8 - 28\,u_2^2u_3^3xy^8 - 36\,u_2u_3u_6xy^8 + u_5^2xy^8 - 36\,u_2^3u_3u_4xy^8 + 8\,u_2u_8xy^8 + 15\,u_2^8xy^8 - 3\,u_9xy^8 + 36\,u_2^3u_6xy^8 + 2\,u_3u_7xy^8 - 3\,u_7u_2^2xy^8 + 21\,u_3^2u_2^4xy^8 + 12\,u_2^2u_3u_5xy^8 - 6\,u_3u_2^6xy^8 - 11\,u_5u_2^4xy^8 - 3\,u_3^2u_5xy^8 + 24\,u_4u_6xy^8 + 28\,u_4^2u_2^2xy^8 - 12\,u_2u_4u_5xy^8 + 40\,u_4u_2^5xy^8 + 36\,u_2u_3^2u_4xy^8$$

Some values of the n-series for $F_U(x,y)$ are

$$[2]_U(x) = (2\,x - u_2x^2 + (-2\,u_3 + 2\,u_2^2)x^3 + (-8\,u_2^3 + 8\,u_3u_2 - 7\,u_4)x^4 + (26\,u_2^4 + 30\,u_2u_4 - 28\,u_3u_2^2 - 6\,u_5 + 8\,u_3^2)x^5 + (-84\,u_2^5 + 28\,u_5u_2 - 111\,u_2^2u_4 + 60\,u_3u_4 - 62\,u_6 + 83\,u_2^3u_3 - 89\,u_2u_3^2)x^6 + (112\,u_4^2 - 40\,u_3^3 + 300\,u_2^6 - 458\,u_2u_3u_4 - 110\,u_5u_2^2 + 502\,u_2^3u_4 + 316\,u_2u_6 - 332\,u_2^4u_3 + 460\,u_2^2u_3^2 + 56\,u_3u_5 - 18\,u_7)x^7 + (100\,u_7u_2 + 2479\,u_2^2u_3u_4 - 452\,u_2u_3u_5 + 744\,u_2u_3^3 + 508\,u_5u_2^3 - 1318\,u_2^2u_6 + 1399\,u_2^5u_3 - 1845\,u_2^3u_3^2 - 472\,u_3^2u_4 + 632\,u_3u_6 + 208\,u_4u_5 - 960\,u_2u_4^2 - 2299\,u_2^4u_4 - 127\,u_8 - 1140\,u_2^7)x^8 + (-11884\,u_2^3u_3u_4 - 1754\,u_2u_4u_5 - 5396\,u_2u_3u_6 + 6404\,u_2u_3^2u_4 + 2550\,u_2^2u_3u_5 + 5414\,u_2^2u_4^2 + 9958\,u_2^5u_4 + 766\,u_2u_8 - 442\,u_7u_2^2 - 5678\,u_2^2u_3^3 - 2312\,u_5u_2^4 + 6228\,u_2^3u_6 - 5540\,u_2^6u_3 + 7918\,u_2^4u_3^2 + 4334\,u_2^8 - 464\,u_3^2u_5 + 200\,u_3u_7 - 1842\,u_3u_4^2 + 2336\,u_4u_6 + 96\,u_5^2 - 170\,u_9 + 170\,u_3^4)x^9 + O(x^{10}))$$

$$[3]_U(x) = (3\,x - 3\,u_2x^2 + (-8\,u_3 + 9\,u_2^2)x^3 + (-51\,u_2^3 + 51\,u_3u_2 - 39\,u_4)x^4 + (261\,u_2^4 + 279\,u_2u_4 - 285\,u_3u_2^2 - 48\,u_5 + 72\,u_3^2)x^5 + (-1341\,u_2^5 + 387\,u_5u_2 - 1683\,u_2^2u_4 + 783\,u_3u_4 - 726\,u_6 + 1442\,u_2^3u_3 - 1214\,u_2u_3^2)x^6 + (2106\,u_4^2 - 840\,u_3^3 + 7452\,u_2^6 - 9924\,u_2u_3u_4 - 2520\,u_5u_2^2 + 11664\,u_2^3u_4 + 6552\,u_2u_6 - 8748\,u_2^4u_3 + 10440\,u_2^2u_3^2 + 1080\,u_3u_5 - 312\,u_7)x^7 + (3123\,u_7u_2 + 87804\,u_2^2u_3u_4 - 14694\,u_2u_3u_5 + 23790\,u_2u_3^3 + 17982\,u_5u_2^3 - 45891\,u_2^2u_6 + 56427\,u_2^5u_3 - 70452\,u_2^3u_3^2 - 14535\,u_3^2u_4 + 18198\,u_3u_6 + 5751\,u_4u_5 - 30102\,u_2u_4^2 - 82914\,u_2^4u_4 - 3279\,u_8 - 43869\,u_2^7)x^8 + (-684909\,u_2^3u_3u_4 - 83034\,u_2u_4u_5 - 265116\,u_2u_3u_6 + 314424\,u_2u_3^2u_4 + 136809\,u_2^2u_3u_5 + 281979\,u_2^2u_4^2 + 569691\,u_2^5u_4 + 36081\,u_2u_8 - 23427\,u_7u_2^2 - 298468\,u_2^2u_3^3 - 128430\,u_5u_2^4 + 338013\,u_2^3u_6 - 356157\,u_2^6u_3 + 480148\,u_2^4u_3^2 + 262206\,u_2^8 - 21312\,u_3^2u_5 + 8640\,u_3u_7 - 82647\,u_3u_4^2 + 96066\,u_4u_6 + 3888\,u_5^2 - 6560\,u_9 + 9000\,u_3^4)x^9 + O(x^{10}))$$

$$[4]_U(x) = (4\,x - 6\,u_2x^2 + (-20\,u_3 + 24\,u_2^2)x^3 + (-177\,u_2^3 + 176\,u_3u_2 - 126\,u_4)x^4 + (1236\,u_2^4 + 1272\,u_2u_4 - 1352\,u_3u_2^2 - 204\,u_5 + 320\,u_3^2)x^5 + (-8694\,u_2^5 + 2352\,u_5u_2 - 10644\,u_2^2u_4 + 4576\,u_3u_4 - 4092\,u_6 + 9552\,u_2^3u_3 - 7302\,u_2u_3^2)x^6 + (16128\,u_4^2 - 6720\,u_3^3 + 65544\,u_2^6 - 81272\,u_2u_3u_4 - 21384\,u_5u_2^2 + 99504\,u_2^3u_4 + 53232\,u_2u_6 - 77972\,u_2^4u_3 + 87720\,u_2^2u_3^2 + 8384\,u_3u_5 - 2340\,u_7)x^7 + (33936\,u_7u_2 + 998040\,u_2^2u_3u_4 - 160816\,u_2u_3u_5 + 257472\,u_2u_3^3 + 206688\,u_5u_2^3 - 523176\,u_2^2u_6 + 678196\,u_2^5u_3 - 827844\,u_2^3u_3^2 - 153536\,u_3^2u_4 + 188352\,u_3u_6 + 58368\,u_4u_5 - 324225\,u_2u_4^2 - 957981\,u_2^4u_4 - 32766\,u_8 - 522456\,u_2^7)x^8 + (-10747840\,u_2^3u_3u_4 - 1196904\,u_2u_4u_5 - 3886320\,u_2u_3u_6 + 4578720\,u_2u_3^2u_4 + 2086512\,u_2^2u_3u_5 + 4244820\,u_2^2u_4^2 + 8987844\,u_2^5u_4 + 524280\,u_2u_8 - 358680\,u_7u_2^2 - 4493080\,u_2^2u_3^3 - 2007036\,u_5u_2^4 + 5242080\,u_2^3u_6 - 5845564\,u_2^6u_3 + 7721440\,u_2^4u_3^2 + 4248228\,u_2^8 - 299904\,u_3^2u_5 + 119360\,u_3u_7 - 1149200\,u_3u_4^2 + 1297920\,u_4u_6 + 52224\,u_5^2 - 87380\,u_9 + 132260\,u_3^4)x^9 + O(x^{10}))$$

$$[5]_U(x) = (5\,x - 10\,u_2x^2 + (-40\,u_3 + 50\,u_2^2)x^3 + (-455\,u_2^3 + 450\,u_3u_2 - 310\,u_4)x^4 + (4025\,u_2^4 + 4050\,u_2u_4 - 4400\,u_3u_2^2 - 624\,u_5 + 1000\,u_3^2)x^5 + (-35925\,u_2^5 + 9370\,u_5u_2 - 43350\,u_2^2u_4 + 17750\,u_3u_4 - 15620\,u_6 + 39795\,u_2^3u_3 - 28860\,u_2u_3^2)x^6 + (77500\,u_4^2 - 33000\,u_3^3 + 342000\,u_2^6 -$$

$405900\,u_2u_3u_4 - 109340\,u_5{u_2}^2 + 510250\,{u_2}^3u_4 + 265600\,u_2u_6 - 408550\,{u_2}^4u_3 + 445050\,{u_2}^2{u_3}^2 + 40600\,u_3u_5 - 11160\,u_7)x^7 + (212050\,u_7u_2 + 6378250\,{u_2}^2u_3u_4 - 1005860\,u_2u_3u_5 + 1597500\,u_2{u_3}^3 + 1333975\,u_5{u_2}^3 - 3359200\,{u_2}^2u_6 + 4472575\,{u_2}^5u_3 - 5390475\,{u_2}^3{u_3}^2 - 937750\,{u_3}^2u_4 + 1140500\,u_3u_6 + 349750\,u_4u_5 - 2010705\,u_2{u_4}^2 - 6195955\,{u_2}^4u_4 - 195310\,u_8 - 3438465\,{u_2}^7)x^8 + (-87557500\,{u_2}^3u_3u_4 - 9301940\,u_2u_4u_5 - 30466800\,u_2u_3u_6 + 35695500\,u_2{u_3}^2u_4 + 16735800\,{u_2}^2u_3u_5 + 33814025\,{u_2}^2{u_4}^2 + 73632775\,{u_2}^5u_4 + 4101550\,u_2u_8 - 2890600\,u_7{u_2}^2 - 35715400\,{u_2}^2{u_3}^3 - 16370570\,u_5{u_2}^4 + 42591750\,{u_2}^3u_6 - 48815375\,{u_2}^6u_3 + 63803050\,{u_2}^4{u_3}^2 + 35344325\,{u_2}^8 - 2289600\,{u_3}^2u_5 + 904000\,u_3u_7 - 8715500\,u_3{u_4}^2 + 9717500\,u_4u_6 + 390000\,{u_5}^2 - 651040\,u_9 + 1029320\,{u_3}^4)x^9 + O(x^{10}))$

$[6]_U(x) = (6\,x - 15\,u_2x^2 + (-70\,u_3 + 90\,{u_2}^2)x^3 + (-975\,{u_2}^3 + 960\,u_3u_2 - 645\,u_4)x^4 + (10440\,{u_2}^4 + 10350\,u_2u_4 - 11400\,u_3{u_2}^2 - 1554\,u_5 + 2520\,{u_3}^2)x^5 + (-112905\,{u_2}^5 + 28764\,u_5u_2 - 134955\,{u_2}^2u_4 + 53460\,u_3u_4 - 46650\,u_6 + 125545\,{u_2}^3u_3 - 88055\,u_2{u_3}^2)x^6 + (278640\,{u_4}^2 - 120120\,{u_3}^3 + 1298430\,{u_2}^6 - 1496130\,u_2u_3u_4 - 409734\,u_5{u_2}^2 + 1915650\,{u_2}^3u_4 + 979740\,u_2u_6 - 1553310\,{u_2}^4u_3 + 1657800\,{u_2}^2{u_3}^2 + 146664\,u_3u_5 - 39990\,u_7)x^7 + (939780\,u_7u_2 + 28648485\,{u_2}^2u_3u_4 - 4455348\,u_2u_3u_5 + 7033560\,u_2{u_3}^3 + 6038388\,u_5{u_2}^3 - 15151230\,{u_2}^2u_6 + 20499630\,{u_2}^5u_3 - 24503805\,{u_2}^3{u_3}^2 - 4084200\,{u_3}^2u_4 + 4945320\,u_3u_6 + 1507248\,u_4u_5 - 8860755\,u_2{u_4}^2 - 28077195\,{u_2}^4u_4 - 839805\,u_8 - 15758115\,{u_2}^7)x^8 + (-477919980\,{u_2}^3u_3u_4 - 49279626\,u_2u_4u_5 - 162218820\,u_2u_3u_6 + 189247500\,u_2{u_3}^2u_4 + 90454482\,{u_2}^2u_3u_5 + 182015820\,{u_2}^2{u_4}^2 + 403799490\,{u_2}^5u_4 + 21834990\,u_2u_8 - 15686370\,u_7{u_2}^2 - 191774990\,{u_2}^2{u_3}^3 - 89553942\,u_5{u_2}^4 + 232435980\,{u_2}^3u_6 - 270682830\,{u_2}^6u_3 + 351492130\,{u_2}^4{u_3}^2 + 195781410\,{u_2}^8 - 11967984\,{u_3}^2u_5 + 4705560\,u_3u_7 - 45374310\,u_3{u_4}^2 + 50245920\,u_4u_6 + 2013984\,{u_5}^2 - 3359230\,u_9 + 5435710\,{u_3}^4)x^9 + O(x^{10}))$

$[7]_U(x) =$
$(7\,x - 21\,u_2x^2 + (-112\,u_3 + 147\,{u_2}^2)x^3 + (-1848\,{u_2}^3 + 1813\,u_3u_2 - 1197\,u_4)x^4 + (23226\,{u_2}^4 + 22785\,u_2u_4 - 25333\,u_3{u_2}^2 - 3360\,u_5 + 5488\,{u_3}^2)x^5 + (-295029\,{u_2}^5 + 73941\,u_5u_2 - 350301\,{u_2}^2u_4 + 135485\,u_3u_4 - 117642\,u_6 + 328713\,{u_2}^3u_3 - 225274\,u_2{u_3}^2)x^6 + (821142\,{u_4}^2 - 356720\,{u_3}^3 + 3977085\,{u_2}^6 - 4486048\,u_2u_3u_4 - 1243620\,u_5{u_2}^2 + 5822082\,{u_2}^3u_4 + 2941176\,u_2u_6 - 4759762\,{u_2}^4u_3 + 5008290\,{u_2}^2{u_3}^2 + 433552\,u_3u_5 - 117648\,u_7)x^7 + (3294165\,u_7u_2 + 101311224\,{u_2}^2u_3u_4 - 15602090\,u_2u_3u_5 + 24516954\,u_2{u_3}^3 + 21484491\,u_5{u_2}^3 - 53765103\,{u_2}^2u_6 + 73526264\,{u_2}^5u_3 - 87379005\,{u_2}^3{u_3}^2 - 14124397\,{u_3}^2u_4 + 17058762\,u_3u_6 + 5178957\,u_4u_5 - 30926385\,u_2{u_4}^2 - 99963024\,{u_2}^4u_4 - 2882397\,u_8 - 56547120\,{u_2}^7)x^8 + (-1989250109\,{u_2}^3u_3u_4 - 200937534\,u_2u_4u_5 - 663532716\,u_2u_3u_6 + 771540084\,u_2{u_3}^2u_4 + 373935513\,{u_2}^2u_3u_5 + 750474984\,{u_2}^2{u_4}^2 + 1687102683\,{u_2}^5u_4 + 89354391\,u_2u_8 - 65059827\,u_7{u_2}^2 - 788865308\,{u_2}^2{u_3}^3 - 373574628\,u_5{u_2}^4 + 968008083\,{u_2}^3u_6 - 1139032685\,{u_2}^6u_3 + 1472522618\,{u_2}^4{u_3}^2 + 823766244\,{u_2}^8 - 48294400\,{u_3}^2u_5 + 18941440\,u_3u_7 - 182623147\,u_3{u_4}^2 + 201410286\,u_4u_6 + 8067360\,{u_5}^2 - 13451200\,u_9 + 22069040\,{u_3}^4)x^9 + O(x^{10}))$

$[8]_U(x) = (8\,x - 28\,u_2x^2 + (-168\,u_3 + 224\,{u_2}^2)x^3 + (-3206\,{u_2}^3 + 3136\,u_3u_2 - 2044\,u_4)x^4 + (46256\,{u_2}^4 + 45024\,u_2u_4 - 50400\,u_3{u_2}^2 - 6552\,u_5 + 10752\,{u_3}^2)x^5 + (-674856\,{u_2}^5 + 167104\,u_5u_2 - 797328\,{u_2}^2u_4 + 302848\,u_3u_4 - 262136\,u_6 + 752752\,{u_2}^3u_3 - 507164\,u_2{u_3}^2)x^6 + (2093056\,{u_4}^2 - 913920\,{u_3}^3 + 10433472\,{u_2}^6 - 11581024\,u_2u_3u_4 - 3240608\,u_5{u_2}^2 + 15186304\,{u_2}^3u_4 + 7602112\,u_2u_6 - 12486768\,{u_2}^4u_3 + 13002080\,{u_2}^2{u_3}^2 + 1107456\,u_3u_5 - 299592\,u_7)x^7 + (9736768\,u_7u_2 + 301330624\,{u_2}^2u_3u_4 - 46069184\,u_2u_3u_5 + 72128000\,u_2{u_3}^3 + 64212736\,u_5{u_2}^3 - 160365856\,{u_2}^2u_6 + 220985632\,{u_2}^5u_3 - 261487632\,{u_2}^3{u_3}^2 - 41305600\,{u_3}^2u_4 + 49806848\,u_3u_6 + 15081472\,u_4u_5 - 91109382\,u_2{u_4}^2 - 298896934\,{u_2}^4u_4 - 8388604\,u_8 - 170065329\,{u_2}^7)x^8 + (-6806109184\,{u_2}^3u_3u_4 - 677235104\,u_2u_4u_5 - 2241055936\,u_2u_3u_6 + 2599093504\,u_2{u_3}^2u_4 + 1272980352\,{u_2}^2u_3u_5 + 2550248624\,{u_2}^2{u_4}^2 + 5790060976\,{u_2}^5u_4 + 301989856\,u_2u_8 - 222073312\,u_7{u_2}^2 - 2675114848\,{u_2}^2{u_3}^3 - 1280700176\,u_5{u_2}^4 + 3314535168\,{u_2}^3u_6 -$

$3928501472\,{u_2}^6u_3 + 5062322048\,{u_2}^4{u_3}^2 + 2841886376\,{u_2}^8 - 161430528\,{u_3}^2u_5 + 63214080\,u_3u_7 - 609357952\,u_3{u_4}^2 + 670294016\,u_4u_6 + 26836992\,{u_5}^2 - 44739240\,u_9 + 74059720\,{u_3}^4)x^9 + O(x^{10}))$

$[9]_U(x) = (9\,x - 36\,u_2x^2 + (-240\,u_3 + 324\,{u_2}^2)x^3 + (-5202\,{u_2}^3 + 5076\,u_3u_2 - 3276\,u_4)x^4 + (84726\,{u_2}^4 + 81972\,u_2u_4 - 92232\,u_3{u_2}^2 - 11808\,u_5 + 19440\,{u_3}^2)x^5 + (-1395954\,{u_2}^5 + 342468\,u_5u_2 - 1643004\,{u_2}^2u_4 + 615276\,u_3u_4 - 531432\,u_6 + 1558122\,{u_2}^3u_3 - 1036152\,u_2{u_3}^2)x^6 + (4776408\,{u_4}^2 - 2093040\,{u_3}^3 + 24345684\,{u_2}^6 - 26686152\,u_2u_3u_4 - 7522632\,u_5{u_2}^2 + 35280684\,{u_2}^3u_4 + 17537472\,u_2u_6 - 29131812\,{u_2}^4u_3 + 30091500\,{u_2}^2{u_3}^2 + 2531088\,u_3u_5 - 683280\,u_7)x^7 + (25281396\,u_7u_2 + 786051540\,{u_2}^2u_3u_4 - 119503080\,u_2u_3u_5 + 186545592\,u_2{u_3}^3 + 168167178\,u_5{u_2}^3 - 419305896\,{u_2}^2u_6 + 581112846\,{u_2}^5u_3 - 685321074\,{u_2}^3{u_3}^2 - 106329996\,{u_3}^2u_4 + 128076552\,u_3u_6 + 38709900\,u_4u_5 - 235947510\,u_2{u_4}^2 - 783021186\,{u_2}^4u_4 - 21523356\,u_8 - 447512211\,{u_2}^7)x^8 + (-20074210560\,{u_2}^3u_3u_4 - 1974702888\,u_2u_4u_5 - 6544143360\,u_2u_3u_6 + 7573853160\,u_2{u_3}^2u_4 + 3740102424\,{u_2}^2u_3u_5 + 7483193910\,{u_2}^2{u_4}^2 + 17120541834\,{u_2}^5u_4 + 882457740\,u_2u_8 - 653900040\,u_7{u_2}^2 - 7835233680\,{u_2}^2{u_3}^3 - 3783877092\,u_5{u_2}^4 + 9783806940\,{u_2}^3u_6 - 11658208824\,{u_2}^6u_3 + 14986039860\,{u_2}^4{u_3}^2 + 8436854133\,{u_2}^8 - 467555328\,{u_3}^2u_5 + 182891520\,u_3u_7 - 1762663680\,u_3{u_4}^2 + 1935495000\,u_4u_6 + 77472288\,{u_5}^2 - 129140160\,u_9 + 215078320\,{u_3}^4)x^9 + O(x^{10}))$

6.3. $F_{U,T}(x,y)$ **over** $\mathbb{Z}[U;T]$.

```
> restart: with(powseries): with(numtheory,divisors):
> # Let's define the function nu(d)
> nu:=proc(d)
> if ( nops(ifactors(d)[2]) > 1 ) then return(1);
> else return(ifactors(d)[2][1][1]); end if;
> end proc;
> # Let's define the function c(p,d)
> c:=proc(p,d)
> local k;
> for k from 1 to (p-1)
> do
> if (d=1) then return(1);
> elif (d=p) then return(1);
> elif (d=p^2) then return(1);
> elif (d=p^3) then return(1);
> elif (d=p^4) then return(1);
> elif (d=p^5) then return(1);
> elif (d=p^6) then return(1);
> elif (d=p^7) then return(1);
> elif (d=p^8) then return(1);
> # there's got to be a better way to make this work,
> # but I don't care right now, just as long as it does work!
> # right now it only works for sure up to d=511 = 2^9 - 1.
> elif (k*nu(d) mod p = 1) then return (k*nu(d));
> end if;
> od;
> end proc;
> # Let's define the function mu(n,d),
  # and an ancillary function
> primedivisors:=proc(d)
> # prime divisors: return a list of the prime
  # divisors of a number, not its multiplicity
> [seq(ifactors(d)[2][j][1],j=1..nops(ifactors(d)[2]))];
> end proc;
> mu:=proc(n,d)
> mul(c(primedivisors(n)[j],d),j=1..nops(primedivisors(n)));
> end proc:
> # Let's define another function
> pd:=proc(n)
> # return a list of the proper divisors of n
  # (those divisors not equal to 1 or n)
> [op(divisors(n) minus {1,n})];
> end proc;
> # Next, define b_n(U) as a function
```



```
> b:=n->simplify((u[n] + add( (mu(n,pd(n)[j]) * nu(n) )
  /nu(pd(n)[j]) * b(n/pd(n)[j]) * u[pd(n)[j]]^(n/pd(n)[j]),
  j=1..nops(pd(n))))/nu(n));
> f_U:=x-> x + add(b(n)*x^n,n=2..30);
> f_UT:=x->series(add(f_U(t[i-1]*x^i),i=1..30),x,31);
> t[0]:=1:
> f_UT(x);
> latex(%);
> logUT:=powpoly(f_UT(x),x);
> expUT:=reversion(logUT);
> m:=10: # compute series to O(m), i.e. mod degree m.
> e_UT:=x->convert(simplify(tpsform(expUT,x,m)),polynom);
> e_UT(x);
> latex(%);
> F_UT:=(x,y)->sort(simplify(mtaylor(subs(z=f_UT(x)+f_UT(y),
  e_UT(z)),[x,y],m)), [x,y]);
> F_UT(x,y);
> latex(%);
```

The results of these computations are that logarithm $\log_{U,T}(x)$ equals

$$(x+(1/2\,u_2+t_1)x^2+(t_2+1/3\,u_3)x^3+(1/2\,u_2{t_1}^2+1/2\,u_4+1/4\,{u_2}^3+t_3)x^4+(t_4+1/5\,u_5)x^5+(1/2\,u_2{t_2}^2+u_6+2/3\,u_3{u_2}^3+1/2\,u_2{u_3}^2+1/3\,u_3{t_1}^3+t_5)x^6+(t_6+1/7\,u_7)x^7+(1/2\,u_8+1/4\,{u_2}^4u_4+1/8\,{u_2}^7+1/4\,u_2{u_4}^2+(1/2\,u_4+1/4\,{u_2}^3){t_1}^4+t_7+1/2\,u_2{t_3}^2)x^8+(1/3\,u_3{t_2}^3+t_8+1/3\,u_9+1/9\,{u_3}^4)x^9+(1/5\,u_5{t_1}^5+t_9+1/2\,u_2{t_4}^2+u_{10}+3/5\,u_5{u_2}^5+1/2\,u_2{u_5}^2)x^{10}+(1/11\,u_{11}+t_{10})x^{11}+(u_{12}+2\,u_2{}^6u_6+4/3\,{u_2}^9u_3+{u_2}^7{u_3}^2+1/2\,{u_3}^4u_4+1/4\,{u_3}^4{u_2}^3+2/3\,u_3{u_4}^3+1/2\,u_2{u_6}^2+1/3\,u_3{t_3}^3+1/2\,u_2{t_5}^2+(1/2\,u_4+1/4\,{u_2}^3){t_2}^4+t_{11}+(u_6+2/3\,u_3u_2{}^3+1/2\,u_2{u_3}^2){t_1}^6)x^{12}+(1/13\,u_{13}+t_{12})x^{13}+(u_{14}+4/7\,u_7{u_2}^7+1/2\,u_2{u_7}^2+1/7\,u_7{t_1}^7+1/2\,u_2{t_6}^2+t_{13})x^{14}+(t_{14}+1/3\,u_3{t_4}^3+u_{15}+2/5\,u_5{u_3}^5+2/3\,u_3{u_5}^3+1/5\,u_5{t_2}^5)x^{15}+(1/2\,u_2{t_7}^2+(1/2\,u_4+1/4\,{u_2}^3){t_3}^4+t_{15}+1/2\,u_{16}+1/4\,u_2{}^8u_8+1/8\,u_2{}^{12}u_4+1/16\,u_2{}^{15}+1/8\,u_2{}^9{u_4}^2+1/4\,u_4{}^5+1/8\,u_4{}^4{u_2}^3+1/4\,u_2{u_8}^2+(1/2\,u_8+1/4\,{u_2}^4u_4+1/8\,{u_2}^7+1/4\,u_2{u_4}^2){t_1}^8)x^{16}+(1/17\,u_{17}+t_{16})x^{17}+((1/3\,u_9+1/9\,{u_3}^4){t_1}^9+(u_6+2/3\,u_3u_2{}^3+1/2\,u_2{u_3}^2){t_2}^6+u_{18}+2/3\,u_2{}^9u_9+2/9\,u_2{}^9{u_3}^4+u_3{}^6u_6+2/3\,u_3{}^7{u_2}^3+1/2\,u_3{}^8u_2+1/3\,u_3u_6{}^3+1/2\,u_2u_9{}^2+1/3\,u_3{t_5}^3+t_{17}+1/2\,u_2{t_8}^2)x^{18}+(1/19\,u_{19}+t_{18})x^{19}+((u_{10}+3/5\,u_5{u_2}^5+1/2\,u_2{u_5}^2){t_1}^{10}+1/5\,u_5{t_3}^5+t_{19}+u_{20}+3\,u_2{}^{10}u_{10}+9/5\,u_2{}^{15}u_5+3/2\,u_2{}^{11}{u_5}^2+3/5\,u_5{u_4}^5+1/2\,u_5{}^4u_4+1/4\,u_5{}^4{u_2}^3+1/2\,u_2u_{10}{}^2+(1/2\,u_4+1/4\,{u_2}^3){t_4}^4+1/2\,u_2{t_9}^2)x^{20}+(t_{20}+1/7\,u_7{t_2}^7+u_{21}+5/7\,u_7{u_3}^7+1/3\,u_3{u_7}^3+1/3\,u_3{t_6}^3)x^{21}+(1/2\,u_2{t_{10}}^2+1/11\,u_{11}{t_1}^{11}+u_{22}+\tfrac{6}{11}\,u_{11}{u_2}^{11}+1/2\,u_2{u_{11}}^2+t_{21})x^{22}+(t_{22}+1/23\,u_{23})x^{23}+(t_{23}+1/2\,u_2{t_{11}}^2+(u_{12}+2\,u_2{}^6u_6+4/3\,{u_2}^9u_3+{u_2}^7{u_3}^2+1/2\,{u_3}^4u_4+1/4\,{u_3}^4{u_2}^3+2/3\,u_3{u_4}^3+1/2\,u_2{u_6}^2){t_1}^{12}+(1/2\,u_4+1/4\,{u_2}^3){t_5}^4+(u_6+2/3\,u_3u_2{}^3+1/2\,u_2{u_3}^2){t_3}^6+(1/2\,u_8+1/4\,{u_2}^4u_4+1/8\,{u_2}^7+1/4\,u_2{u_4}^2){t_2}^8+1/3\,u_3{t_7}^3+1/4\,{u_3}^8{u_2}^4u_4+u_2{}^{12}{u_3}^4u_4+4/3\,{u_2}^{12}u_3{u_4}^3+1/4\,{u_3}^8u_2{u_4}^2+4/3\,{u_4}^6u_3{u_2}^3+u_4{}^6u_2{u_3}^2+u_{24}+1/2\,u_2u_{12}{}^2+2\,{u_2}^{12}u_{12}+4\,{u_2}^{18}u_6+8/3\,{u_2}^{21}u_3+2\,{u_2}^{19}{u_3}^2+1/2\,{u_2}^{15}{u_3}^4+u_2{}^{13}u_6{}^2+1/2\,u_3{}^8u_8+1/8\,{u_3}^8{u_2}^7+2\,u_4{}^6u_6+1/2\,u_6{}^4u_4+1/4\,u_6{}^4{u_2}^3+2/3\,u_3u_8{}^3)x^{24}+(t_{24}+1/5\,u_5{t_4}^5+1/5\,u_{25}+1/25\,u_5{}^6)x^{25}+(u_{26}+\tfrac{7}{13}\,u_{13}{u_2}^{13}+1/2\,u_2{u_{13}}^2+t_{25}+1/2\,u_2{t_{12}}^2+1/13\,u_{13}{t_1}^{13})x^{26}+(t_{26}+(1/3\,u_9+1/9\,{u_3}^4){t_2}^9+1/3\,u_{27}+1/9\,{u_3}^9u_9+1/27\,{u_3}^{13}+1/9\,u_3u_9{}^3+1/3\,u_3{t_8}^3)x^{27}+(1/2\,u_2{t_{13}}^2+t_{27}+(u_{14}+4/7\,u_7{u_2}^7+1/2\,u_2{u_7}^2){t_1}^{14}+(1/2\,u_4+1/4\,{u_2}^3){t_6}^4+1/7\,u_7{t_3}^7+u_{28}+4\,u_2{}^{14}u_{14}+\tfrac{16}{7}\,{u_2}^{21}u_7+2\,{u_2}^{15}{u_7}^2+4/7\,u_7u_4{}^7+1/2\,u_7{}^4u_4+1/4\,u_7{}^4{u_2}^3+1/2\,u_2u_{14}{}^2)x^{28}+(t_{28}+1/29\,u_{29})x^{29}+(1/2\,u_2{t_{14}}^2+(u_{10}+3/5\,u_5{u_2}^5+1/2\,u_2{u_5}^2){t_2}^{10}+t_{29}+1/5\,u_5{t_5}^5+(u_{15}+2/5\,u_5{u_3}^5+2/3\,u_3{u_5}^3){t_1}^{15}+1/3\,u_3{t_9}^3+u_{30}+$$

$12\,u_2{}^{15}u_{15}+\frac{24}{5}\,u_2{}^{15}u_5u_3{}^5+8\,u_2{}^{15}u_3u_5{}^3+6\,u_3{}^{10}u_{10}+\frac{18}{5}\,u_3{}^{10}u_5u_2{}^5+3\,u_3{}^{10}u_2u_5{}^2+10\,u_5{}^6u_6+\frac{20}{3}\,u_5{}^6u_3u_2{}^3+5\,u_5{}^6u_2u_3{}^2+1/5\,u_5u_6{}^5+1/3\,u_3u_{10}{}^3+1/2\,u_2u_{15}{}^2+(u_6+2/3\,u_3u_2{}^3+1/2\,u_2u_3{}^2)t_4{}^6)x^{30}+O(x^{32}))$

The formal group law $F_{U,T}(x,y)$ equals

$x+y$

$-u_2xy-2\,t_1xy$

$-3\,t_2x^2y+4\,u_2t_1x^2y+4\,t_1{}^2x^2y+u_2{}^2x^2y-u_3x^2y+4\,u_2t_1xy^2-u_3xy^2+u_2{}^2xy^2-3\,t_2xy^2+4\,t_1{}^2xy^2$

$-8\,t_1{}^3x^3y-4\,t_3x^3y-2\,u_2{}^3x^3y+4\,t_1u_3x^3y-2\,u_4x^3y+2\,u_2u_3x^3y-6\,u_2{}^2t_1x^3y-14\,u_2t_1{}^2x^3y+6\,u_2t_2x^3y+12\,t_1t_2x^3y+4\,u_2u_3x^2y^2+12\,u_2t_2x^2y^2+24\,t_1t_2x^2y^2-6\,t_3x^2y^2-3\,u_4x^2y^2-15\,u_2{}^2t_1x^2y^2-4\,u_2{}^3x^2y^2+8\,t_1u_3x^2y^2-33\,u_2t_1{}^2x^2y^2-20\,t_1{}^3x^2y^2+2\,u_2u_3xy^3+6\,u_2t_2xy^3-6\,u_2{}^2t_1xy^3+12\,t_1t_2xy^3-2\,u_2{}^3xy^3-4\,t_3xy^3-2\,u_4xy^3+4\,t_1u_3xy^3-8\,t_1{}^3xy^3-14\,u_2t_1{}^2xy^3$

$-12\,u_2t_1u_3x^4y+4\,u_2u_4x^4y+8\,u_2t_3x^4y-36\,t_1{}^2t_2x^4y-12\,t_1{}^2u_3x^4y-5\,t_4x^4y+8\,t_1u_4x^4y+16\,t_1t_3x^4y+6\,t_2u_3x^4y+12\,u_2{}^3t_1x^4y+28\,u_2{}^2t_1{}^2x^4y-9\,u_2{}^2t_2x^4y-3\,u_2{}^2u_3x^4y+40\,u_2t_1{}^3x^4y+u_3{}^2x^4y+9\,t_2{}^2x^4y+16\,t_1{}^4x^4y+3\,u_2{}^4x^4y-u_5x^4y-36\,u_2t_1t_2x^4y+72\,t_1{}^4x^3y^2+10\,u_2{}^4x^3y^2-2\,u_5x^3y^2-10\,t_4x^3y^2-132\,u_2t_1t_2x^3y^2+47\,u_2{}^3t_1x^3y^2+119\,u_2{}^2t_1{}^2x^3y^2-33\,u_2{}^2t_2x^3y^2+22\,t_1u_4x^3y^2-44\,u_2t_1u_3x^3y^2+3\,u_3{}^2x^3y^2+27\,t_2{}^2x^3y^2-44\,t_1{}^2u_3x^3y^2+44\,t_1t_3x^3y^2+18\,t_2u_3x^3y^2-132\,t_1{}^2t_2x^3y^2+166\,u_2t_1{}^3x^3y^2-11\,u_2{}^2u_3x^3y^2+22\,u_2t_3x^3y^2+11\,u_2u_4x^3y^2+22\,t_1u_4x^2y^3+18\,t_2u_3x^2y^3-11\,u_2{}^2u_3x^2y^3+10\,u_2{}^4x^2y^3+44\,t_1t_3x^2y^3+72\,t_1{}^4x^2y^3-132\,t_1{}^2t_2x^2y^3-44\,t_1{}^2u_3x^2y^3+27\,t_2{}^2x^2y^3+22\,u_2t_3x^2y^3-33\,u_2{}^2t_2x^2y^3-132\,u_2t_1t_2x^2y^3+47\,u_2{}^3t_1x^2y^3+3\,u_3{}^2x^2y^3-10\,t_4x^2y^3-2\,u_5x^2y^3+11\,u_2u_4x^2y^3-44\,u_2t_1u_3x^2y^3+119\,u_2{}^2t_1{}^2x^2y^3+166\,u_2t_1{}^3x^2y^3+12\,u_2{}^3t_1xy^4+28\,u_2{}^2t_1{}^2xy^4-9\,u_2{}^2t_2xy^4-3\,u_2{}^2u_3xy^4+8\,u_2t_3xy^4+9\,t_2{}^2xy^4+40\,u_2t_1{}^3xy^4+6\,t_2u_3xy^4-5\,t_4xy^4+8\,t_1u_4xy^4+16\,t_1t_3xy^4+u_3{}^2xy^4+3\,u_2{}^4xy^4-36\,t_1{}^2t_2xy^4-12\,t_1{}^2u_3xy^4+4\,u_2u_4xy^4-12\,u_2t_1u_3xy^4-u_5xy^4+16\,t_1{}^4xy^4-36\,u_2t_1t_2xy^4$

$-32\,t_1{}^5x^5y-6\,t_5x^5y-4\,u_2{}^5x^5y+96\,t_1{}^3t_2x^5y-6\,u_6x^5y+4\,u_3u_4x^5y+18\,u_2{}^3t_2x^5y-24\,t_1{}^2u_4x^5y-58\,u_2{}^3t_1{}^2x^5y-30\,u_2t_2{}^2x^5y-6\,t_1u_3{}^2x^5y-24\,u_2t_1u_4x^5y+30\,u_3t_1{}^3x^5y-48\,t_1{}^2t_3x^5y-54\,t_1t_2{}^2x^5y-104\,u_2t_1{}^4x^5y-48\,u_2t_1t_3x^5y+2\,u_2u_5x^5y+10\,u_2t_4x^5y+52\,u_2t_1{}^2u_3x^5y+2\,u_3u_2{}^3x^5y-6\,u_2u_3{}^2x^5y-18\,u_2t_2u_3x^5y-36\,t_1t_2u_3x^5y+4\,t_1u_5x^5y-22\,u_2{}^4t_1x^5y+20\,t_1t_4x^5y-104\,u_2{}^2t_1{}^3x^5y-6\,u_2{}^2u_4x^5y-12\,u_2{}^2t_3x^5y+24\,u_2{}^2t_1u_3x^5y+156\,u_2t_1{}^2t_2x^5y+8\,u_3t_3x^5y+12\,t_2u_4x^5y+72\,u_2{}^2t_1t_2x^5y+24\,t_2t_3x^5y+141\,u_2{}^2t_1u_3x^4y^2+14\,t_1u_5x^4y^2+70\,t_1t_4x^4y^2-22\,u_2u_3{}^2x^4y^2+90\,t_2t_3x^4y^2+45\,t_2u_4x^4y^2+30\,u_3t_3x^4y^2-15\,t_5x^4y^2-15\,u_6x^4y^2-261\,t_1t_2{}^2x^4y^2-224\,t_1{}^2t_3x^4y^2-112\,t_1{}^2u_4x^4y^2+423\,u_2{}^2t_1t_2x^4y^2+891\,u_2t_1{}^2t_2x^4y^2+297\,u_2t_1{}^2u_3x^4y^2-112\,u_2t_1u_4x^4y^2+21\,u_3u_2{}^3x^4y^2-21\,u_2{}^5x^4y^2-174\,t_1t_2u_3x^4y^2-224\,t_1{}^5x^4y^2+7\,u_2u_5x^4y^2+35\,u_2t_4x^4y^2-29\,t_1u_3{}^2x^4y^2+564\,t_1{}^3t_2x^4y^2-672\,u_2t_1{}^4x^4y^2-224\,u_2t_1t_3x^4y^2+183\,u_3t_1{}^3x^4y^2+15\,u_3u_4x^4y^2-56\,u_2{}^2t_3x^4y^2-138\,u_2t_2{}^2x^4y^2-87\,u_2t_2u_3x^4y^2+93\,u_2{}^3t_2x^4y^2-672\,u_2{}^2t_1{}^3x^4y^2-28\,u_2{}^2u_4x^4y^2-364\,u_2{}^3t_1{}^2x^4y^2-126\,u_2{}^4t_1x^4y^2+20\,t_1u_5x^3y^3-46\,t_1u_3{}^2x^3y^3+100\,t_1t_4x^3y^3+50\,u_2t_4x^3y^3+708\,u_2{}^2t_1t_2x^3y^3+944\,t_1{}^3t_2x^3y^3-172\,t_1{}^2u_4x^3y^3-344\,t_1{}^2t_3x^3y^3-1172\,u_2{}^2t_1{}^3x^3y^3+236\,u_2{}^2t_1u_3x^3y^3-43\,u_2{}^2u_4x^3y^3-86\,u_2{}^2t_3x^3y^3+10\,u_2u_5x^3y^3-34\,u_2{}^5x^3y^3-400\,t_1{}^5x^3y^3-414\,t_1t_2{}^2x^3y^3-344\,u_2t_1t_3x^3y^3+132\,t_2t_3x^3y^3+66\,t_2u_4x^3y^3+44\,u_3t_3x^3y^3+37\,u_3u_2{}^3x^3y^3-33\,u_2u_3{}^2x^3y^3-172\,u_2t_1u_4x^3y^3-217\,u_2t_2{}^2x^3y^3+22\,u_3u_4x^3y^3-20\,u_6x^3y^3-1172\,u_2t_1{}^4x^3y^3+308\,u_3t_1{}^3x^3y^3-20\,t_5x^3y^3+1482\,u_2t_1{}^2t_2x^3y^3+494\,u_2t_1{}^2u_3x^3y^3-138\,u_2t_2u_3x^3y^3-276\,t_1t_2u_3x^3y^3-211\,u_2{}^4t_1x^3y^3+151\,u_2{}^3t_2x^3y^3-629\,u_2{}^3t_1{}^2x^3y^3-672\,u_2t_1{}^4x^2y^4-138\,u_2t_2{}^2x^2y^4+15\,u_3u_4x^2y^4-56\,u_2{}^2t_3x^2y^4-364\,u_2{}^3t_1{}^2x^2y^4+141\,u_2{}^2t_1u_3x^2y^4-224\,t_1{}^2t_3x^2y^4-126\,u_2{}^4t_1x^2y^4+7\,u_2u_5x^2y^4+35\,u_2t_4x^2y^4+891\,u_2t_1{}^2t_2x^2y^4+297\,u_2t_1{}^2u_3x^2y^4+183\,u_3t_1{}^3x^2y^4+564\,t_1{}^3t_2x^2y^4-112\,t_1{}^2u_4x^2y^4-672\,u_2{}^2t_1{}^3x^2y^4-28\,u_2{}^2u_4x^2y^4-261\,t_1t_2{}^2x^2y^4+93\,u_2{}^3t_2x^2y^4-15\,t_5x^2y^4-15\,u_6x^2y^4-21\,u_2{}^5x^2y^4-224\,t_1{}^5x^2y^4+14\,t_1u_5x^2y^4+70\,t_1t_4x^2y^4-29\,t_1u_3{}^2x^2y^4-174\,t_1t_2u_3x^2y^4+30\,u_3t_3x^2y^4-112\,u_2t_1u_4x^2y^4+423\,u_2{}^2t_1t_2x^2y^4+45\,t_2u_4x^2y^4-224\,u_2t_1t_3x^2y^4-87\,u_2t_2u_3x^2y^4+21\,u_3u_2{}^3x^2y^4+90\,t_2t_3x^2y^4-$

$22\,u_2u_3{}^2x^2y^4+156\,u_2t_1{}^2t_2xy^5+52\,u_2t_1{}^2u_3xy^5+24\,u_2{}^2t_1u_3xy^5-22\,u_2{}^4t_1xy^5+72\,u_2{}^2t_1t_2xy^5-104\,u_2t_1{}^4xy^5-58\,u_2{}^3t_1{}^2xy^5+18\,u_2{}^3t_2xy^5-104\,u_2{}^2t_1{}^3xy^5+96\,t_1{}^3t_2xy^5-24\,u_2t_1u_4xy^5-18\,u_2t_2u_3xy^5-36\,t_1t_2u_3xy^5-6\,u_2{}^2u_4xy^5-48\,t_1{}^2t_3xy^5-30\,u_2t_2{}^2xy^5-4\,u_2{}^5xy^5-24\,t_1{}^2u_4xy^5-6\,t_5xy^5-6\,u_6xy^5-54\,t_1t_2{}^2xy^5+4\,t_1u_5xy^5+20\,t_1t_4xy^5+24\,t_2t_3xy^5+12\,t_2u_4xy^5+8\,u_3t_3xy^5+2\,u_3u_2{}^3xy^5-6\,u_2u_3{}^2xy^5-12\,u_2{}^2t_3xy^5+30\,u_3t_1{}^3xy^5-32\,t_1{}^5xy^5+4\,u_3u_4xy^5-6\,t_1u_3{}^2xy^5-48\,u_2t_1t_3xy^5+2\,u_2u_5xy^5+10\,u_2t_4xy^5$

$-48\,t_1u_3t_3x^6y+64\,t_1{}^6x^6y-33\,u_2{}^4t_2x^6y+340\,u_2{}^2t_1{}^4x^6y+36\,u_2{}^5t_1x^6y+120\,u_2{}^4t_1{}^2x^6y-72\,t_1t_2u_4x^6y-24\,t_1u_3u_4x^6y-3\,u_2{}^2u_5x^6y-7\,t_6x^6y-u_7x^6y+12\,u_2t_5x^6y+12\,u_2u_6x^6y-72\,u_3t_1{}^4x^6y+24\,t_1t_5x^6y+6\,u_2{}^6x^6y-u_3{}^3x^6y+240\,u_2{}^3t_1{}^3x^6y+12\,u_2{}^3u_4x^6y-144\,t_1t_2t_3x^6y+256\,u_2t_1{}^5x^6y+36\,u_2{}^2t_2u_3x^6y-180\,u_2u_3t_1{}^3x^6y-3\,u_3u_2{}^4x^6y+12\,u_2{}^2u_3{}^2x^6y-552\,u_2t_1{}^3t_2x^6y+4\,u_4{}^2x^6y+208\,u_2t_1{}^2t_3x^6y+228\,u_2t_1t_2{}^2x^6y-12\,u_2t_1u_5x^6y+16\,t_3{}^2x^6y-27\,t_2{}^3x^6y+48\,u_2{}^2t_1u_4x^6y+96\,u_2{}^2t_1t_3x^6y+2\,u_3u_5x^6y+10\,u_3t_4x^6y-15\,u_2{}^2t_4x^6y+24\,t_1{}^2u_3{}^2x^6y-240\,t_1{}^4t_2x^6y+64\,t_1{}^3u_4x^6y+144\,u_2t_1t_2u_3x^6y+144\,t_1{}^2t_2u_3x^6y-156\,u_2{}^3t_1t_2x^6y-60\,u_2t_1t_4x^6y-72\,u_2t_2t_3x^6y-36\,u_2t_2u_4x^6y-24\,u_2u_3t_3x^6y-12\,t_1{}^2u_5x^6y-12\,u_2u_3u_4x^6y+16\,u_4t_3x^6y+216\,t_1{}^2t_2{}^2x^6y+24\,u_2{}^3t_3x^6y-36\,u_2{}^3t_1u_3x^6y+104\,u_2t_1{}^2u_4x^6y-132\,u_2{}^2t_1{}^2u_3x^6y+128\,t_1{}^3t_3x^6y+30\,t_2t_4x^6y-396\,u_2{}^2t_1{}^2t_2x^6y+36\,u_2t_1u_3{}^2x^6y+60\,u_2{}^2t_2{}^2x^6y-27\,t_2{}^2u_3x^6y-60\,t_1{}^2t_4x^6y+24\,t_1u_6x^6y-9\,t_2u_3{}^2x^6y+6\,t_2u_5x^6y+342\,u_2{}^2t_1u_4x^5y^2+261\,u_2{}^2t_2u_3x^5y^2-1102\,u_2{}^2t_1{}^2u_3x^5y^2-3306\,u_2{}^2t_1{}^2t_2x^5y^2+456\,t_1{}^3u_4x^5y^2+684\,u_2{}^2t_1t_3x^5y^2-1499\,u_2u_3t_1{}^3x^5y^2-68\,t_1{}^2u_5x^5y^2-70\,u_2u_3u_4x^5y^2+75\,u_2{}^3u_4x^5y^2+1566\,t_1{}^2t_2{}^2x^5y^2+720\,u_2t_1{}^2u_4x^5y^2+2170\,u_2{}^3t_1{}^3x^5y^2-340\,t_1{}^2t_4x^5y^2+912\,t_1{}^3t_3x^5y^2+2376\,u_2t_1{}^5x^5y^2-17\,u_2{}^2u_5x^5y^2+3102\,u_2{}^2t_1{}^4x^5y^2+225\,u_2t_1u_3{}^2x^5y^2-4548\,u_2t_1{}^3t_2x^5y^2+51\,u_2t_5x^5y^2-346\,u_2{}^3t_1u_3x^5y^2-2064\,t_1{}^4t_2x^5y^2+174\,t_1{}^2u_3{}^2x^5y^2-420\,u_2t_2t_3x^5y^2-210\,u_2t_2u_4x^5y^2-85\,u_2{}^2t_4x^5y^2+102\,t_1u_6x^5y^2+417\,u_2{}^2t_2{}^2x^5y^2-420\,t_1t_2u_4x^5y^2-280\,t_1u_3t_3x^5y^2+291\,u_2{}^5t_1x^5y^2+1017\,u_2{}^4t_1{}^2x^5y^2+1440\,u_2t_1{}^2t_3x^5y^2+1617\,u_2t_1t_2{}^2x^5y^2-68\,u_2t_1u_5x^5y^2-340\,u_2t_1t_4x^5y^2-162\,t_2{}^3x^5y^2+18\,u_4{}^2x^5y^2-140\,u_2u_3t_3x^5y^2+1044\,t_1{}^2t_2u_3x^5y^2-1242\,u_2{}^3t_1t_2x^5y^2+640\,t_1{}^6x^5y^2-44\,u_3u_2{}^4x^5y^2-54\,t_2u_3{}^2x^5y^2-162\,t_2{}^2u_3x^5y^2-654\,u_3t_1{}^4x^5y^2-3\,u_7x^5y^2+135\,t_2t_4x^5y^2+72\,u_4t_3x^5y^2-840\,t_1t_2t_3x^5y^2+9\,u_3u_5x^5y^2+150\,u_2{}^3t_3x^5y^2-140\,t_1u_3u_4x^5y^2+51\,u_2u_6x^5y^2+43\,u_2{}^6x^5y^2+27\,t_2u_5x^5y^2+69\,u_2{}^2u_3{}^2x^5y^2-234\,u_2{}^4t_2x^5y^2+72\,t_3{}^2x^5y^2-21\,t_6x^5y^2-6\,u_3{}^3x^5y^2+45\,u_3t_4x^5y^2+1044\,u_2t_1t_2u_3x^5y^2+102\,t_1t_5x^5y^2+5700\,u_2{}^3t_1{}^3x^4y^3-140\,t_1{}^2u_5x^4y^3+720\,u_2{}^5t_1x^4y^3-441\,u_2t_2u_4x^4y^3-547\,u_2{}^4t_2x^4y^3+8194\,u_2{}^2t_1{}^4x^4y^3+2080\,t_1{}^3t_3x^4y^3+3654\,t_1{}^2t_2{}^2x^4y^3-588\,t_1u_3t_3x^4y^3+2436\,u_2t_1t_2u_3x^4y^3-882\,u_2t_2t_3x^4y^3+95\,u_2t_5x^4y^3-294\,u_2u_3t_3x^4y^3-700\,u_2t_1t_4x^4y^3-3053\,u_2{}^3t_1t_2x^4y^3-294\,t_1u_3u_4x^4y^3-882\,t_1t_2u_4x^4y^3+2594\,u_2{}^4t_1{}^2x^4y^3+406\,t_1{}^2u_3{}^2x^4y^3+164\,u_2{}^3u_4x^4y^3+328\,u_2{}^3t_3x^4y^3-5\,u_7x^4y^3-700\,t_1{}^2t_4x^4y^3-351\,t_2{}^2u_3x^4y^3+51\,t_2u_5x^4y^3+255\,t_2t_4x^4y^3+17\,u_3u_5x^4y^3+780\,u_2{}^2t_1u_4x^4y^3+1560\,u_2{}^2t_1t_3x^4y^3-1764\,t_1t_2t_3x^4y^3-3745\,u_2u_3t_1{}^3x^4y^3-147\,u_2u_3u_4x^4y^3-5224\,t_1{}^4t_2x^4y^3+1040\,t_1{}^3u_4x^4y^3+961\,u_2{}^2t_2{}^2x^4y^3-140\,u_2t_1u_5x^4y^3-35\,u_2{}^2u_5x^4y^3+190\,t_1u_6x^4y^3+1760\,t_1{}^6x^4y^3-13\,u_3{}^3x^4y^3+136\,t_3{}^2x^4y^3-351\,t_2{}^3x^4y^3-11330\,u_2t_1{}^3t_2x^4y^3-35\,t_6x^4y^3+136\,u_4t_3x^4y^3+501\,u_2t_1u_3{}^2x^4y^3-891\,u_2{}^3t_1u_3x^4y^3+101\,u_2{}^6x^4y^3+6320\,u_2t_1{}^5x^4y^3+3749\,u_2t_1t_2{}^2x^4y^3+149\,u_2{}^2u_3{}^2x^4y^3+95\,u_2u_6x^4y^3-8277\,u_2{}^2t_1{}^2t_2x^4y^3-2759\,u_2{}^2t_1{}^2u_3x^4y^3+3256\,u_2t_1{}^2t_3x^4y^3+34\,u_4{}^2x^4y^3+609\,u_2{}^2t_2u_3x^4y^3+190\,t_1t_5x^4y^3-175\,u_2{}^2t_4x^4y^3-119\,u_3u_2{}^4x^4y^3-117\,t_2u_3{}^2x^4y^3+1628\,u_2t_1{}^2u_4x^4y^3+85\,u_3t_4x^4y^3-1678\,u_3t_1{}^4x^4y^3+2436\,t_1{}^2t_2u_3x^4y^3-294\,t_1u_3u_4x^3y^4-147\,u_2u_3u_4x^3y^4-3745\,u_2u_3t_1{}^3x^3y^4+1628\,u_2t_1{}^2u_4x^3y^4+3256\,u_2t_1{}^2t_3x^3y^4+164\,u_2{}^3u_4x^3y^4-294\,u_2u_3t_3x^3y^4-700\,u_2t_1t_4x^3y^4+609\,u_2{}^2t_2u_3x^3y^4-3053\,u_2{}^3t_1t_2x^3y^4+780\,u_2{}^2t_1u_4x^3y^4+1560\,u_2{}^2t_1t_3x^3y^4+501\,u_2t_1u_3{}^2x^3y^4+95\,u_2t_5x^3y^4-140\,t_1{}^2u_5x^3y^4-140\,u_2t_1u_5x^3y^4+2594\,u_2{}^4t_1{}^2x^3y^4-882\,u_2t_2t_3x^3y^4+3749\,u_2t_1t_2{}^2x^3y^4-117\,t_2u_3{}^2x^3y^4-351\,t_2{}^2u_3x^3y^4+51\,t_2u_5x^3y^4+255\,t_2t_4x^3y^4+17\,u_3u_5x^3y^4-1764\,t_1t_2t_3x^3y^4+1760\,t_1{}^6x^3y^4-11330\,u_2t_1{}^3t_2x^3y^4+8194\,u_2{}^2t_1{}^4x^3y^4+720\,u_2{}^5t_1x^3y^4+136\,u_4t_3x^3y^4-547\,u_2{}^4t_2x^3y^4-441\,u_2t_2u_4x^3y^4+2080\,t_1{}^3t_3x^3y^4+3654\,t_1{}^2t_2{}^2x^3y^4+34\,u_4{}^2x^3y^4+190\,t_1t_5x^3y^4+328\,u_2{}^3t_3x^3y^4+6320\,u_2t_1{}^5x^3y^4+2436\,t_1{}^2t_2u_3x^3y^4-891\,u_2{}^3t_1u_3x^3y^4+961\,u_2{}^2t_2{}^2x^3y^4+85\,u_3t_4x^3y^4-5224\,t_1{}^4t_2x^3y^4-588\,t_1u_3t_3x^3y^4+5700\,u_2{}^3t_1{}^3x^3y^4-2759\,u_2{}^2t_1{}^2u_3x^3y^4-8277\,u_2{}^2t_1{}^2t_2x^3y^4-1678\,u_3t_1{}^4x^3y^4-700\,t_1{}^2t_4x^3y^4+101\,u_2{}^6x^3y^4-13\,u_3{}^3x^3y^4-35\,u_2{}^2u_5x^3y^4+$

$$136\,t_3{}^2x^3y^4 - 882\,t_1t_2u_4x^3y^4 - 5\,u_7x^3y^4 + 1040\,t_1{}^3u_4x^3y^4 - 119\,u_3u_2{}^4x^3y^4 - 175\,u_2{}^2t_4x^3y^4 + 149\,u_2{}^2u_3{}^2x^3y^4 + 95\,u_2u_6x^3y^4 - 351\,t_2{}^3x^3y^4 + 190\,t_1u_6x^3y^4 + 406\,t_1{}^2u_3{}^2x^3y^4 + 2436\,u_2t_1t_2u_3x^3y^4 - 35\,t_6x^3y^4 + 150\,u_2{}^3t_3x^2y^5 - 654\,u_3t_1{}^4x^2y^5 + 1044\,t_1{}^2t_2u_3x^2y^5 + 2376\,u_2t_1{}^5x^2y^5 - 3\,u_7x^2y^5 + 43\,u_2{}^6x^2y^5 + 102\,t_1t_5x^2y^5 + 51\,u_2u_6x^2y^5 - 420\,t_1t_2u_4x^2y^5 - 21\,t_6x^2y^5 - 17\,u_2{}^2u_5x^2y^5 + 640\,t_1{}^6x^2y^5 + 2170\,u_2{}^3t_1{}^3x^2y^5 + 75\,u_2{}^3u_4x^2y^5 + 1017\,u_2{}^4t_1{}^2x^2y^5 - 234\,u_2{}^4t_2x^2y^5 + 18\,u_4{}^2x^2y^5 - 3306\,u_2{}^2t_1{}^2t_2x^2y^5 - 6\,u_3{}^3x^2y^5 + 69\,u_2{}^2u_3{}^2x^2y^5 - 54\,t_2u_3{}^2x^2y^5 - 162\,t_2{}^2u_3x^2y^5 + 27\,t_2u_5x^2y^5 + 1044\,u_2t_1t_2u_3x^2y^5 + 3102\,u_2{}^2t_1{}^4x^2y^5 + 291\,u_2{}^5t_1x^2y^5 + 72\,u_4t_3x^2y^5 + 174\,t_1{}^2u_3{}^2x^2y^5 - 44\,u_3u_2{}^4x^2y^5 + 456\,t_1{}^3u_4x^2y^5 + 912\,t_1{}^3t_3x^2y^5 + 1566\,t_1{}^2t_2{}^2x^2y^5 - 68\,t_1{}^2u_5x^2y^5 + 72\,t_3{}^2x^2y^5 - 162\,t_2{}^3x^2y^5 - 840\,t_1t_2t_3x^2y^5 + 135\,t_2t_4x^2y^5 + 9\,u_3u_5x^2y^5 + 45\,u_3t_4x^2y^5 - 4548\,u_2t_1{}^3t_2x^2y^5 + 720\,u_2t_1{}^2u_4x^2y^5 - 85\,u_2{}^2t_4x^2y^5 - 1242\,u_2{}^3t_1t_2x^2y^5 - 346\,u_2{}^3t_1u_3x^2y^5 - 340\,u_2t_1t_4x^2y^5 - 1102\,u_2{}^2t_1{}^2u_3x^2y^5 + 342\,u_2{}^2t_1u_4x^2y^5 + 684\,u_2{}^2t_1t_3x^2y^5 + 261\,u_2{}^2t_2u_3x^2y^5 - 280\,t_1u_3t_3x^2y^5 + 51\,u_2t_5x^2y^5 + 225\,u_2t_1u_3{}^2x^2y^5 - 68\,u_2t_1u_5x^2y^5 - 140\,t_1u_3u_4x^2y^5 - 2064\,t_1{}^4t_2x^2y^5 + 1617\,u_2t_1t_2{}^2x^2y^5 - 140\,u_2u_3t_3x^2y^5 - 420\,u_2t_2t_3x^2y^5 - 210\,u_2t_2u_4x^2y^5 + 417\,u_2{}^2t_2{}^2x^2y^5 - 1499\,u_2u_3t_1{}^3x^2y^5 - 70\,u_2u_3u_4x^2y^5 - 340\,t_1{}^2t_4x^2y^5 + 1440\,u_2t_1{}^2t_3x^2y^5 + 102\,t_1u_6x^2y^5 + 144\,u_2t_1t_2u_3xy^6 + 36\,u_2t_1u_3{}^2xy^6 - 72\,u_2t_2t_3xy^6 + 64\,t_1{}^6xy^6 - 48\,t_1u_3t_3xy^6 - 12\,u_2u_3u_4xy^6 + 12\,u_2{}^3u_4xy^6 - 60\,u_2t_1t_4xy^6 + 208\,u_2t_1{}^2t_3xy^6 + 228\,u_2t_1t_2{}^2xy^6 - 552\,u_2t_1{}^3t_2xy^6 - 180\,u_2u_3t_1{}^3xy^6 - 144\,t_1t_2t_3xy^6 - 72\,t_1t_2u_4xy^6 - 7\,t_6xy^6 + 104\,u_2t_1{}^2u_4xy^6 + 36\,u_2{}^2t_2u_3xy^6 + 240\,u_2{}^3t_1{}^3xy^6 + 144\,t_1{}^2t_2u_3xy^6 - u_7xy^6 + 256\,u_2t_1{}^5xy^6 - 3\,u_2{}^2u_5xy^6 - 15\,u_2{}^2t_4xy^6 + 24\,u_2{}^3t_3xy^6 - 12\,u_2t_1u_5xy^6 + 12\,u_2{}^2u_3{}^2xy^6 + 12\,u_2u_6xy^6 - 72\,u_3t_1{}^4xy^6 + 24\,t_1t_5xy^6 + 48\,u_2{}^2t_1u_4xy^6 + 96\,u_2{}^2t_1t_3xy^6 - 33\,u_2{}^4t_2xy^6 + 24\,t_1{}^2u_3{}^2xy^6 - 240\,t_1{}^4t_2xy^6 + 64\,t_1{}^3u_4xy^6 + 128\,t_1{}^3t_3xy^6 - 3\,u_3u_2{}^4xy^6 - 36\,u_2t_2u_4xy^6 - 24\,t_1u_3u_4xy^6 + 16\,t_3{}^2xy^6 - 27\,t_2{}^3xy^6 + 340\,u_2{}^2t_1{}^4xy^6 + 36\,u_2{}^5t_1xy^6 + 120\,u_2{}^4t_1{}^2xy^6 + 16\,u_4t_3xy^6 - 132\,u_2{}^2t_1{}^2u_3xy^6 + 216\,t_1{}^2t_2{}^2xy^6 - 9\,t_2u_3{}^2xy^6 - 27\,t_2{}^2u_3xy^6 + 6\,t_2u_5xy^6 + 30\,t_2t_4xy^6 + 2\,u_3u_5xy^6 + 10\,u_3t_4xy^6 - 396\,u_2{}^2t_1{}^2t_2xy^6 + 60\,u_2{}^2t_2{}^2xy^6 + 12\,u_2t_5xy^6 - 60\,t_1{}^2t_4xy^6 - 24\,u_2u_3t_3xy^6 + 4\,u_4{}^2xy^6 + 6\,u_2{}^6xy^6 - 156\,u_2{}^3t_1t_2xy^6 - 36\,u_2{}^3t_1u_3xy^6 - u_3{}^3xy^6 - 12\,t_1{}^2u_5xy^6 + 24\,t_1u_6xy^6$$

$$-720\,t_1{}^3t_2{}^2x^7y + 8\,t_3u_5x^7y + 40\,t_3t_4x^7y + 4\,u_4u_5x^7y + 20\,u_4t_4x^7y - 164\,t_1{}^4u_4x^7y - 320\,t_1{}^4t_3x^7y + 288\,u_2t_1t_2u_4x^7y + 192\,u_2t_1u_3t_3x^7y + 54\,u_2{}^5t_2x^7y - 544\,u_2{}^4t_1{}^3x^7y - 44\,u_2{}^4t_3x^7y - 1016\,u_2{}^2t_1{}^5x^7y + 6\,u_2{}^3u_5x^7y + 30\,u_2{}^3t_4x^7y + 6\,u_3u_2{}^5x^7y + 24\,u_2{}^2t_1u_5x^7y + 120\,u_2{}^2t_1t_4x^7y + 144\,u_2{}^2t_2t_3x^7y + 72\,u_2{}^2t_2u_4x^7y + 48\,u_2{}^2u_3t_3x^7y - 468\,t_1{}^3t_2u_3x^7y - 36\,t_2u_3u_4x^7y - 72\,t_2u_3t_3x^7y - 12\,t_1u_3u_5x^7y - 60\,t_1u_3t_4x^7y - 96\,t_1u_4t_3x^7y + 96\,t_1{}^2u_3u_4x^7y + 576\,t_1{}^2t_2t_3x^7y + 288\,t_1{}^2t_2u_4x^7y + 192\,t_1{}^2u_3t_3x^7y + 54\,u_2t_2u_3{}^2x^7y + 114\,u_2t_2{}^2u_3x^7y - 18\,u_2t_2u_5x^7y - 90\,u_2t_2t_4x^7y - 6\,u_2u_3u_5x^7y - 30\,u_2u_3t_4x^7y - 48\,u_2u_4t_3x^7y - 162\,u_2t_1{}^2u_3{}^2x^7y + 1728\,u_2t_1{}^4t_2x^7y - 368\,u_2t_1{}^3u_4x^7y + 216\,t_1t_2{}^2u_3x^7y + 324\,u_2{}^4t_1t_2x^7y + 60\,u_2{}^4t_1u_3x^7y + 936\,u_2{}^3t_1{}^2t_2x^7y + 264\,u_2{}^3t_1{}^2u_3x^7y - 104\,u_2{}^3t_1u_4x^7y - 208\,u_2{}^3t_1t_3x^7y - 54\,u_2{}^3t_2u_3x^7y + 570\,u_2{}^2u_3t_1{}^3x^7y + 24\,u_2{}^2u_3u_4x^7y - 96\,u_2{}^2t_1u_3{}^2x^7y + 1728\,u_2{}^2t_1{}^3t_2x^7y - 264\,u_2{}^2t_1{}^2u_4x^7y - 528\,u_2{}^2t_1{}^2t_3x^7y - 576\,u_2{}^2t_1t_2{}^2x^7y - 96\,t_1t_3{}^2x^7y + 216\,t_1t_2{}^3x^7y - 76\,t_1{}^3u_3{}^2x^7y + 576\,t_1{}^5t_2x^7y - 10\,u_2{}^7x^7y - 8\,t_7x^7y - 4\,u_8x^7y - 52\,u_2t_3{}^2x^7y - 14\,u_2u_4{}^2x^7y - 24\,u_2{}^4u_4x^7y + 10\,u_2u_3{}^3x^7y + 36\,t_2t_5x^7y - 108\,t_2{}^2t_3x^7y - 54\,t_2{}^2u_4x^7y + 36\,t_2u_6x^7y + 12\,u_3t_5x^7y - 6\,u_3{}^2u_4x^7y - 12\,u_3{}^2t_3x^7y + 12\,u_3u_6x^7y + 32\,t_1{}^3u_5x^7y + 160\,t_1{}^3t_4x^7y - 72\,t_1{}^2u_6x^7y + 168\,u_3t_1{}^5x^7y - 72\,t_1{}^2t_5x^7y + 4\,t_1u_7x^7y - 736\,u_2t_1{}^3t_3x^7y - 1170\,u_2t_1{}^2t_2{}^2x^7y + 52\,u_2t_1{}^2u_5x^7y + 260\,u_2t_1{}^2t_4x^7y - 72\,u_2t_1u_6x^7y + 552\,u_2u_3t_1{}^4x^7y - 72\,u_2t_1t_5x^7y + 72\,t_1t_2u_3{}^2x^7y - 14\,u_2{}^3u_3{}^2x^7y - 18\,u_2{}^2u_6x^7y - 608\,u_2t_1{}^6x^7y + 2\,u_2u_7x^7y - 24\,t_1u_4{}^2x^7y + 8\,t_1u_3{}^3x^7y + 28\,t_1t_6x^7y - 126\,u_2{}^3t_2{}^2x^7y - 18\,u_2{}^2t_5x^7y - 894\,u_2{}^3t_1{}^4x^7y - 60\,u_2{}^6t_1x^7y - 226\,u_2{}^5t_1{}^2x^7y + 576\,u_2t_1t_2t_3x^7y - 180\,t_1t_2t_4x^7y + 14\,u_2t_6x^7y + 126\,u_2t_2{}^3x^7y - 36\,t_1t_2u_5x^7y - 360\,u_2{}^2t_1t_2u_3x^7y - 756\,u_2t_1{}^2t_2u_3x^7y + 96\,u_2t_1u_3u_4x^7y - 128\,t_1{}^7x^7y + 268\,t_1{}^3u_5x^6y^2 - 480\,t_1{}^2t_5x^6y^2 + 1340\,t_1{}^3t_4x^6y^2 - 480\,t_1{}^2u_6x^6y^2 + 63\,u_3u_6x^6y^2 + 3354\,u_2{}^4t_1t_2x^6y^2 - 88\,u_2{}^7x^6y^2 + 2112\,u_3t_1{}^5x^6y^2 - 28\,t_7x^6y^2 - 14\,u_8x^6y^2 - 342\,u_2t_3{}^2x^6y^2 - 1728\,t_1{}^7x^6y^2 - 378\,t_2{}^2u_4x^6y^2 + 189\,t_2u_6x^6y^2 + 63\,u_3t_5x^6y^2 - 42\,u_3{}^2u_4x^6y^2 - 84\,u_3{}^2t_3x^6y^2 - 7596\,u_2t_1{}^2t_2u_3x^6y^2 - 1630\,t_1{}^4u_4x^6y^2 - 3232\,t_1{}^4t_3x^6y^2 - 7344\,t_1{}^3t_2{}^2x^6y^2 + 21\,u_4u_5x^6y^2 + 105\,u_4t_4x^6y^2 + 42\,t_3u_5x^6y^2 + 210\,t_3t_4x^6y^2 + 189\,t_2t_5x^6y^2 - 756\,t_2{}^2t_3x^6y^2 + 816\,t_1{}^2u_3u_4x^6y^2 + 4896\,t_1{}^2t_2t_3x^6y^2 + 2448\,t_1{}^2t_2u_4x^6y^2 + 963\,u_2t_2{}^2u_3x^6y^2 - 123\,u_2t_2u_5x^6y^2 - 615\,u_2t_2t_4x^6y^2 - 41\,u_2u_3u_5x^6y^2 - 205\,u_2u_3t_4x^6y^2 - 328\,u_2u_4t_3x^6y^2 -$$

$$1506\,u_2t_1{}^2u_3{}^2x^6y^2 + 20\,t_1u_7x^6y^2 + 10\,u_2u_7x^6y^2 + 816\,u_2t_1u_3u_4x^6y^2 + 798\,u_2{}^4t_1u_3x^6y^2 - 246\,t_1t_2u_5x^6y^2 - 1230\,t_1t_2t_4x^6y^2 - 3672\,u_2{}^2t_1t_2u_3x^6y^2 + 10356\,u_2{}^3t_1{}^2t_2x^6y^2 + 3132\,u_2{}^3t_1{}^2u_3x^6y^2 - 972\,u_2{}^3t_1u_4x^6y^2 - 1944\,u_2{}^3t_1t_3x^6y^2 - 612\,u_2{}^3t_2u_3x^6y^2 + 6456\,u_2{}^2u_3t_1{}^3x^6y^2 + 204\,u_2{}^2u_3u_4x^6y^2 - 852\,u_2{}^2t_1u_3{}^2x^6y^2 + 19488\,u_2{}^2t_1{}^3t_2x^6y^2 - 2588\,u_2{}^2t_1{}^2u_4x^6y^2 - 5176\,u_2{}^2t_1{}^2t_3x^6y^2 - 5748\,u_2{}^2t_1t_2{}^2x^6y^2 + 201\,u_2{}^2t_1u_5x^6y^2 + 1005\,u_2{}^2t_1t_4x^6y^2 + 1224\,u_2{}^2t_2t_3x^6y^2 + 612\,u_2{}^2t_2u_4x^6y^2 + 408\,u_2{}^2u_3t_3x^6y^2 - 4833\,t_1{}^3t_2u_3x^6y^2 - 252\,t_2u_3u_4x^6y^2 - 504\,t_2u_3t_3x^6y^2 - 82\,t_1u_3u_5x^6y^2 - 410\,t_1u_3t_4x^6y^2 - 656\,t_1u_4t_3x^6y^2 - 3560\,u_2t_1{}^3u_4x^6y^2 - 7120\,u_2t_1{}^3t_3x^6y^2 - 11634\,u_2t_1{}^2t_2{}^2x^6y^2 + 1632\,t_1{}^2u_3t_3x^6y^2 + 405\,u_2t_2u_3{}^2x^6y^2 - 480\,u_2t_1u_6x^6y^2 - 89\,u_2u_4{}^2x^6y^2 - 190\,u_2{}^4u_4x^6y^2 + 66\,u_2u_3{}^3x^6y^2 + 70\,u_2t_6x^6y^2 + 1026\,u_2t_2{}^3x^6y^2 - 1167\,u_2{}^3t_2{}^2x^6y^2 + 19488\,u_2t_1{}^4t_2x^6y^2 - 7664\,u_2t_1{}^6x^6y^2 - 164\,t_1u_4{}^2x^6y^2 + 69\,t_1u_3{}^3x^6y^2 + 423\,u_2t_1{}^2u_5x^6y^2 + 2115\,u_2t_1{}^2t_4x^6y^2 + 1863\,t_1t_2{}^3x^6y^2 + 6336\,u_2u_3t_1{}^4x^6y^2 - 480\,u_2t_1t_5x^6y^2 + 621\,t_1t_2u_3{}^2x^6y^2 + 1863\,t_1t_2{}^2u_3x^6y^2 + 4896\,u_2t_1t_2t_3x^6y^2 + 2448\,u_2t_1t_2u_4x^6y^2 + 1632\,u_2t_1u_3t_3x^6y^2 - 120\,u_2{}^2u_6x^6y^2 - 120\,u_2{}^2t_5x^6y^2 - 10881\,u_2{}^3t_1{}^4x^6y^2 + 140\,t_1t_6x^6y^2 - 656\,t_1t_3{}^2x^6y^2 + 519\,u_2{}^5t_2x^6y^2 - 795\,t_1{}^3u_3{}^2x^6y^2 + 6816\,t_1{}^5t_2x^6y^2 - 12468\,u_2{}^2t_1{}^5x^6y^2 + 44\,u_2{}^3u_5x^6y^2 + 220\,u_2{}^3t_4x^6y^2 + 93\,u_3u_2{}^5x^6y^2 - 141\,u_2{}^3u_3{}^2x^6y^2 - 2529\,u_2{}^5t_1{}^2x^6y^2 - 6368\,u_2{}^4t_1{}^3x^6y^2 - 634\,u_2{}^6t_1x^6y^2 - 366\,u_2{}^4t_3x^6y^2 + 14304\,u_2t_1t_2t_3x^5y^3 + 2384\,u_2t_1u_3u_4x^5y^3 + 3000\,u_2t_2{}^3x^5y^3 + 7152\,u_2t_1t_2u_4x^5y^3 + 96\,t_3u_5x^5y^3 + 480\,t_3t_4x^5y^3 + 438\,t_2t_5x^5y^3 - 2016\,t_2{}^2t_3x^5y^3 - 1008\,t_2{}^2u_4x^5y^3 + 438\,t_2u_6x^5y^3 + 146\,u_3t_5x^5y^3 - 112\,u_3{}^2u_4x^5y^3 - 224\,u_3{}^2t_3x^5y^3 + 4768\,u_2t_1u_3t_3x^5y^3 + 161\,u_2t_6x^5y^3 - 535\,u_2u_3t_4x^5y^3 - 3655\,u_2{}^3t_2{}^2x^5y^3 - 311\,u_2{}^2t_5x^5y^3 - 40026\,u_2{}^3t_1{}^4x^5y^3 - 2141\,u_2{}^6t_1x^5y^3 - 8847\,u_2{}^5t_1{}^2x^5y^3 + 1654\,u_2{}^5t_2x^5y^3 - 22924\,u_2{}^4t_1{}^3x^5y^3 + 5562\,t_1t_2{}^3x^5y^3 - 2614\,t_1{}^3u_3{}^2x^5y^3 + 24320\,t_1{}^5t_2x^5y^3 - 5228\,t_1{}^4u_4x^5y^3 - 10400\,t_1{}^4t_3x^5y^3 - 23964\,t_1{}^3t_2{}^2x^5y^3 + 48\,u_4u_5x^5y^3 + 240\,u_4t_4x^5y^3 + 67952\,u_2{}^2t_1{}^3t_2x^5y^3 - 8224\,u_2{}^2t_1{}^2u_4x^5y^3 - 16448\,u_2{}^2t_1{}^2t_3x^5y^3 - 642\,t_1t_2u_5x^5y^3 - 3210\,t_1t_2t_4x^5y^3 - 11982\,u_2{}^2t_1t_2u_3x^5y^3 - 24636\,u_2t_1{}^2t_2u_3x^5y^3 + 1146\,u_2t_2u_3{}^2x^5y^3 + 2854\,u_2t_2{}^2u_3x^5y^3 - 321\,u_2t_2u_5x^5y^3 + 146\,u_3u_6x^5y^3 + 776\,t_1{}^3u_5x^5y^3 + 3880\,t_1{}^3t_4x^5y^3 - 1244\,t_1{}^2u_6x^5y^3 + 7692\,u_3t_1{}^5x^5y^3 - 1244\,t_1{}^2t_5x^5y^3 + 46\,t_1u_7x^5y^3 - 11248\,u_2t_1{}^3u_4x^5y^3 - 22496\,u_2t_1{}^3t_3x^5y^3 - 1074\,u_2{}^4t_3x^5y^3 - 46104\,u_2{}^2t_1{}^5x^5y^3 + 121\,u_2{}^3u_5x^5y^3 + 605\,u_2{}^3t_4x^5y^3 + 344\,u_3u_2{}^5x^5y^3 - 447\,u_2{}^3u_3{}^2x^5y^3 - 311\,u_2{}^2u_6x^5y^3 - 28720\,u_2t_1{}^6x^5y^3 + 23\,u_2u_7x^5y^3 - 424\,t_1u_4{}^2x^5y^3 + 206\,t_1u_3{}^3x^5y^3 + 322\,t_1t_6x^5y^3 - 1696\,t_1t_3{}^2x^5y^3 - 226\,u_2u_4{}^2x^5y^3 - 551\,u_2{}^4u_4x^5y^3 + 176\,u_2u_3{}^3x^5y^3 + 1788\,u_2{}^2t_2u_4x^5y^3 + 1192\,u_2{}^2u_3t_3x^5y^3 - 15830\,t_1{}^3t_2u_3x^5y^3 - 672\,t_2u_3u_4x^5y^3 - 1344\,t_2u_3t_3x^5y^3 - 214\,t_1u_3u_5x^5y^3 - 1070\,t_1u_3t_4x^5y^3 - 1696\,t_1u_4t_3x^5y^3 + 2384\,t_1{}^2u_3u_4x^5y^3 + 14304\,t_1{}^2t_2t_3x^5y^3 + 7152\,t_1{}^2t_2u_4x^5y^3 + 4768\,t_1{}^2u_3t_3x^5y^3 - 28\,u_8x^5y^3 + 1212\,u_2t_1{}^2u_5x^5y^3 + 6060\,u_2t_1{}^2t_4x^5y^3 - 1605\,u_2t_2t_4x^5y^3 - 107\,u_2u_3u_5x^5y^3 - 1244\,u_2t_1t_5x^5y^3 - 6720\,t_1{}^7x^5y^3 - 848\,u_2u_4t_3x^5y^3 - 4728\,u_2t_1{}^2u_3{}^2x^5y^3 + 67952\,u_2t_1{}^4t_2x^5y^3 + 11092\,u_2{}^3t_1{}^2u_3x^5y^3 - 876\,u_2t_3{}^2x^5y^3 + 2896\,u_2{}^4t_1u_3x^5y^3 - 37576\,u_2t_1{}^2t_2{}^2x^5y^3 + 22547\,u_2{}^2u_3t_1{}^3x^5y^3 - 3024\,u_2{}^3t_1u_4x^5y^3 - 1244\,u_2t_1u_6x^5y^3 + 22236\,u_2u_3t_1{}^4x^5y^3 + 35764\,u_2{}^3t_1{}^2t_2x^5y^3 + 596\,u_2{}^2u_3u_4x^5y^3 + 11176\,u_2{}^4t_1t_2x^5y^3 + 582\,u_2{}^2t_1u_5x^5y^3 - 2041\,u_2{}^3t_2u_3x^5y^3 - 56\,t_7x^5y^3 - 18595\,u_2{}^2t_1t_2{}^2x^5y^3 - 275\,u_2{}^7x^5y^3 + 5562\,t_1t_2{}^2u_3x^5y^3 + 2910\,u_2{}^2t_1t_4x^5y^3 - 6048\,u_2{}^3t_1t_3x^5y^3 + 3576\,u_2{}^2t_2t_3x^5y^3 - 2619\,u_2{}^2t_1u_3{}^2x^5y^3 + 1854\,t_1t_2u_3{}^2x^5y^3 - 23554\,u_2{}^2t_1{}^2t_3x^4y^4 - 4320\,t_1t_2t_4x^4y^4 + 9972\,u_2t_1t_2u_4x^4y^4 + 19944\,u_2t_1t_2t_3x^4y^4 + 3324\,t_1{}^2u_3u_4x^4y^4 + 1682\,u_2t_1{}^2u_5x^4y^4 + 52779\,u_2{}^3t_1{}^2t_2x^4y^4 - 2276\,t_1u_4t_3x^4y^4 - 864\,t_1t_2u_5x^4y^4 - 17340\,u_2{}^2t_1t_2u_3x^4y^4 - 11777\,u_2{}^2t_1{}^2u_4x^4y^4 - 35592\,u_2t_1{}^2t_2u_3x^4y^4 + 3324\,u_2t_1u_3u_4x^4y^4 - 144\,u_2u_3u_5x^4y^4 + 8410\,u_2t_1{}^2t_4x^4y^4 - 1440\,t_1u_3t_4x^4y^4 + 16311\,u_2{}^4t_1t_2x^4y^4 + 4317\,u_2{}^4t_1u_3x^4y^4 - 32164\,u_2t_1{}^3t_3x^4y^4 - 2736\,t_2{}^2t_3x^4y^4 - 1368\,t_2{}^2u_4x^4y^4 - 1680\,u_2t_1u_6x^4y^4 + 4010\,u_2t_2{}^2u_3x^4y^4 - 432\,u_2t_2u_5x^4y^4 + 2610\,t_1t_2u_3{}^2x^4y^4 + 7830\,t_1t_2{}^2u_3x^4y^4 + 33384\,u_2{}^2u_3t_1{}^3x^4y^4 - 720\,u_2u_3t_4x^4y^4 + 6648\,u_2t_1u_3t_3x^4y^4 + 100572\,u_2{}^2t_1{}^3t_2x^4y^4 - 1680\,t_1{}^2t_5x^4y^4 + 60\,t_1u_7x^4y^4 - 26850\,u_2{}^2t_1t_2{}^2x^4y^4 + 810\,u_2{}^2t_1u_5x^4y^4 + 4050\,u_2{}^2t_1t_4x^4y^4 + 32964\,u_2u_3t_1{}^4x^4y^4 - 1680\,u_2t_1t_5x^4y^4 + 1662\,u_2{}^2u_3t_3x^4y^4 - 22930\,t_1{}^3t_2u_3x^4y^4 - 912\,t_2u_3u_4x^4y^4 - 1824\,t_2u_3t_3x^4y^4 - 288\,t_1u_3u_5x^4y^4 - 641\,u_2{}^3u_3{}^2x^4y^4 - 420\,u_2{}^2u_6x^4y^4 - 43592\,u_2t_1{}^6x^4y^4 + 19944\,t_1{}^2t_2t_3x^4y^4 + 9972\,t_1{}^2t_2u_4x^4y^4 + 6648\,t_1{}^2u_3t_3x^4y^4 + 1590\,u_2t_2u_3{}^2x^4y^4 - 2276\,t_1t_3{}^2x^4y^4 + 7830\,t_1t_2{}^3x^4y^4 - 3790\,t_1{}^3u_3{}^2x^4y^4 - 2160\,u_2t_2t_4x^4y^4 + 36240\,t_1{}^5t_2x^4y^4 - 7507\,t_1{}^4u_4x^4y^4 -$$

$$1138\,u_2u_4t_3x^4y^4 - 6772\,u_2t_1{}^2u_3{}^2x^4y^4 + 100572\,u_2t_1{}^4t_2x^4y^4 - 16082\,u_2t_1{}^3u_4x^4y^4 + 620\,t_3t_4x^4y^4 + 570\,t_2t_5x^4y^4 + 570\,t_2u_6x^4y^4 + 190\,u_3t_5x^4y^4 - 152\,u_3{}^2u_4x^4y^4 - 304\,u_3{}^2t_3x^4y^4 + 190\,u_3u_6x^4y^4 + 1080\,t_1{}^3u_5x^4y^4 + 831\,u_2{}^2u_3u_4x^4y^4 - 3730\,u_2{}^2t_1u_3{}^2x^4y^4 + 4200\,u_2t_2{}^3x^4y^4 - 5229\,u_2{}^3t_2{}^2x^4y^4 - 420\,u_2{}^2t_5x^4y^4 - 60396\,u_2{}^3t_1{}^4x^4y^4 - 3139\,u_2{}^6t_1x^4y^4 - 13128\,u_2{}^5t_1{}^2x^4y^4 + 4986\,u_2{}^2t_2t_3x^4y^4 + 2493\,u_2{}^2t_2u_4x^4y^4 - 1503\,u_2{}^4t_3x^4y^4 - 69693\,u_2{}^2t_1{}^5x^4y^4 + 166\,u_2{}^3u_5x^4y^4 + 830\,u_2{}^3t_4x^4y^4 + 513\,u_3u_2{}^5x^4y^4 - 35\,u_8x^4y^4 - 34680\,t_1{}^3t_2{}^2x^4y^4 + 62\,u_4u_5x^4y^4 + 30\,u_2u_7x^4y^4 - 569\,t_1u_4{}^2x^4y^4 + 290\,t_1u_3{}^3x^4y^4 + 420\,t_1t_6x^4y^4 - 4305\,u_2{}^3t_1u_4x^4y^4 - 8610\,u_2{}^3t_1t_3x^4y^4 - 1173\,u_2t_3{}^2x^4y^4 - 302\,u_2u_4{}^2x^4y^4 - 769\,u_2{}^4u_4x^4y^4 + 240\,u_2u_3{}^3x^4y^4 - 14944\,t_1{}^4t_3x^4y^4 - 1680\,t_1{}^2u_6x^4y^4 + 11520\,u_3t_1{}^5x^4y^4 + 310\,u_4t_4x^4y^4 + 124\,t_3u_5x^4y^4 - 2966\,u_2{}^3t_2u_3x^4y^4 + 16473\,u_2{}^3t_1{}^2u_3x^4y^4 + 2379\,u_2{}^5t_2x^4y^4 - 34352\,u_2{}^4t_1{}^3x^4y^4 + 210\,u_2t_6x^4y^4 - 54228\,u_2t_1{}^2t_2{}^2x^4y^4 - 394\,u_2{}^7x^4y^4 - 10320\,t_1{}^7x^4y^4 + 5400\,t_1{}^3t_4x^4y^4 - 70\,t_7x^4y^4 - 28\,u_8x^3y^5 - 1244\,t_1{}^2u_6x^3y^5 - 107\,u_2u_3u_5x^3y^5 - 535\,u_2u_3t_4x^3y^5 - 214\,t_1u_3u_5x^3y^5 + 161\,u_2t_6x^3y^5 + 3000\,u_2t_2{}^3x^3y^5 - 848\,u_2u_4t_3x^3y^5 - 11982\,u_2{}^2t_1t_2u_3x^3y^5 + 2384\,u_2t_1u_3u_4x^3y^5 + 14304\,u_2t_1t_2t_3x^3y^5 - 3210\,t_1t_2t_4x^3y^5 + 3880\,t_1{}^3t_4x^3y^5 + 1854\,t_1t_2u_3{}^2x^3y^5 + 5562\,t_1t_2{}^2u_3x^3y^5 - 876\,u_2t_3{}^2x^3y^5 - 226\,u_2u_4{}^2x^3y^5 - 551\,u_2{}^4u_4x^3y^5 + 176\,u_2u_3{}^3x^3y^5 - 1696\,t_1u_4t_3x^3y^5 + 2384\,t_1{}^2u_3u_4x^3y^5 + 14304\,t_1{}^2t_2t_3x^3y^5 - 3655\,u_2{}^3t_2{}^2x^3y^5 - 24636\,u_2t_1{}^2t_2u_3x^3y^5 + 1654\,u_2{}^5t_2x^3y^5 + 776\,t_1{}^3u_5x^3y^5 + 7152\,u_2t_1t_2u_4x^3y^5 - 275\,u_2{}^7x^3y^5 - 6720\,t_1{}^7x^3y^5 - 56\,t_7x^3y^5 + 35764\,u_2{}^3t_1{}^2t_2x^3y^5 - 1070\,t_1u_3t_4x^3y^5 + 1788\,u_2{}^2t_2u_4x^3y^5 + 1192\,u_2{}^2u_3t_3x^3y^5 - 15830\,t_1{}^3t_2u_3x^3y^5 + 7152\,t_1{}^2t_2u_4x^3y^5 + 4768\,t_1{}^2u_3t_3x^3y^5 + 1146\,u_2t_2u_3{}^2x^3y^5 - 22924\,u_2{}^4t_1{}^3x^3y^5 - 8224\,u_2{}^2t_1{}^2u_4x^3y^5 - 16448\,u_2{}^2t_1{}^2t_3x^3y^5 - 18595\,u_2{}^2t_1t_2{}^2x^3y^5 + 582\,u_2{}^2t_1u_3x^3y^5 + 2910\,u_2{}^2t_1t_4x^3y^5 + 3576\,u_2{}^2t_2t_3x^3y^5 + 46\,t_1u_7x^3y^5 + 11092\,u_2{}^3t_1{}^2u_3x^3y^5 - 3024\,u_2{}^3t_1u_4x^3y^5 - 672\,t_2u_3u_4x^3y^5 - 1344\,t_2u_3t_3x^3y^5 - 112\,u_3{}^2u_4x^3y^5 - 224\,u_3{}^2t_3x^3y^5 + 146\,u_3u_6x^3y^5 + 438\,t_2u_6x^3y^5 - 1244\,u_2t_1t_5x^3y^5 + 11176\,u_2{}^4t_1t_2x^3y^5 + 7692\,u_3t_1{}^5x^3y^5 - 1244\,t_1{}^2t_5x^3y^5 + 344\,u_3u_2{}^5x^3y^5 - 4728\,u_2t_1{}^2u_3{}^2x^3y^5 + 146\,u_3t_5x^3y^5 - 6048\,u_2{}^3t_1t_3x^3y^5 - 2041\,u_2{}^3t_2u_3x^3y^5 - 311\,u_2{}^2t_5x^3y^5 - 40026\,u_2{}^3t_1{}^4x^3y^5 - 2141\,u_2{}^6t_1x^3y^5 - 8847\,u_2{}^5t_1{}^2x^3y^5 + 4768\,u_2t_1u_3t_3x^3y^5 - 1605\,u_2t_2t_4x^3y^5 + 2896\,u_2{}^4t_1u_3x^3y^5 + 605\,u_2{}^3t_4x^3y^5 - 5228\,t_1{}^4u_4x^3y^5 + 22547\,u_2{}^2u_3t_1{}^3x^3y^5 - 10400\,t_1{}^4t_3x^3y^5 - 11248\,u_2t_1{}^3u_4x^3y^5 - 22496\,u_2t_1{}^3t_3x^3y^5 - 321\,u_2t_2u_5x^3y^5 + 596\,u_2{}^2u_3u_4x^3y^5 - 2619\,u_2{}^2t_1u_3{}^2x^3y^5 + 2854\,u_2t_2{}^2u_3x^3y^5 - 1074\,u_2{}^4t_3x^3y^5 - 642\,t_1t_2u_5x^3y^5 - 2614\,t_1{}^3u_3{}^2x^3y^5 + 24320\,t_1{}^5t_2x^3y^5 - 447\,u_2{}^3u_3{}^2x^3y^5 - 37576\,u_2t_1{}^2t_2{}^2x^3y^5 + 1212\,u_2t_1{}^2u_5x^3y^5 + 67952\,u_2t_1{}^4t_2x^3y^5 - 1244\,u_2t_1u_6x^3y^5 + 22236\,u_2u_3t_1{}^4x^3y^5 - 1696\,t_1t_3{}^2x^3y^5 + 6060\,u_2t_1{}^2t_4x^3y^5 + 121\,u_2{}^3u_5x^3y^5 + 48\,u_4u_5x^3y^5 - 311\,u_2{}^2u_6x^3y^5 - 46104\,u_2{}^2t_1{}^5x^3y^5 + 23\,u_2u_7x^3y^5 - 424\,t_1u_4{}^2x^3y^5 + 67952\,u_2{}^2t_1{}^3t_2x^3y^5 - 28720\,u_2t_1{}^6x^3y^5 + 5562\,t_1t_2{}^3x^3y^5 + 480\,t_3t_4x^3y^5 - 23964\,t_1{}^3t_2{}^2x^3y^5 - 1008\,t_2{}^2u_4x^3y^5 + 96\,t_3u_5x^3y^5 + 322\,t_1t_6x^3y^5 + 438\,t_2t_5x^3y^5 + 240\,u_4t_4x^3y^5 + 206\,t_1u_3{}^3x^3y^5 - 2016\,t_2{}^2t_3x^3y^5 + 201\,u_2{}^2t_1u_5x^2y^6 + 612\,u_2{}^2t_2u_4x^2y^6 + 1224\,u_2{}^2t_2t_3x^2y^6 + 1005\,u_2{}^2t_1t_4x^2y^6 - 366\,u_2{}^4t_3x^2y^6 + 44\,u_2{}^3u_5x^2y^6 + 220\,u_2{}^3t_4x^2y^6 + 519\,u_2{}^5t_2x^2y^6 - 6368\,u_2{}^4t_1{}^3x^2y^6 + 4896\,t_1{}^2t_2t_3x^2y^6 - 12468\,u_2{}^2t_1{}^5x^2y^6 + 621\,t_1t_2u_3{}^2x^2y^6 + 19488\,u_2t_1{}^4t_2x^2y^6 - 3560\,u_2t_1{}^3u_4x^2y^6 - 7120\,u_2t_1{}^3t_3x^2y^6 + 2448\,t_1{}^2t_2u_4x^2y^6 + 1632\,t_1{}^2u_3t_3x^2y^6 + 408\,u_2{}^2u_3t_3x^2y^6 + 93\,u_3u_2{}^5x^2y^6 - 4833\,t_1{}^3t_2u_3x^2y^6 - 252\,t_2u_3u_4x^2y^6 - 504\,t_2u_3t_3x^2y^6 - 82\,t_1u_3u_5x^2y^6 - 2529\,u_2{}^5t_1{}^2x^2y^6 - 7596\,u_2t_1{}^2t_2u_3x^2y^6 - 3672\,u_2{}^2t_1t_2u_3x^2y^6 + 2115\,u_2t_1{}^2t_4x^2y^6 - 480\,u_2t_1u_6x^2y^6 + 6336\,u_2u_3t_1{}^4x^2y^6 - 480\,u_2t_1t_5x^2y^6 + 1863\,t_1t_2{}^2u_3x^2y^6 + 1632\,u_2t_1u_3t_3x^2y^6 + 3354\,u_2{}^4t_1t_2x^2y^6 + 798\,u_2{}^4t_1u_3x^2y^6 - 88\,u_2{}^7x^2y^6 - 1728\,t_1{}^7x^2y^6 - 634\,u_2{}^6t_1x^2y^6 - 1230\,t_1t_2t_4x^2y^6 - 410\,t_1u_3t_4x^2y^6 - 656\,t_1u_4t_3x^2y^6 + 816\,t_1{}^2u_3u_4x^2y^6 - 656\,t_1t_3{}^2x^2y^6 + 1863\,t_1t_2{}^3x^2y^6 + 2448\,u_2t_1t_2u_4x^2y^6 + 405\,u_2t_2u_3{}^2x^2y^6 + 963\,u_2t_2{}^2u_3x^2y^6 - 123\,u_2t_2u_5x^2y^6 - 615\,u_2t_2t_4x^2y^6 - 41\,u_2u_3u_5x^2y^6 - 28\,t_7x^2y^6 - 14\,u_8x^2y^6 - 1506\,u_2t_1{}^2u_3{}^2x^2y^6 + 189\,t_2t_5x^2y^6 - 5748\,u_2{}^2t_1t_2{}^2x^2y^6 + 423\,u_2t_1{}^2u_5x^2y^6 - 11634\,u_2t_1{}^2t_2{}^2x^2y^6 - 795\,t_1{}^3u_3{}^2x^2y^6 - 190\,u_2{}^4u_4x^2y^6 + 66\,u_2u_3{}^3x^2y^6 + 70\,u_2t_6x^2y^6 + 1026\,u_2t_2{}^3x^2y^6 - 1167\,u_2{}^3t_2{}^2x^2y^6 - 120\,u_2{}^2t_5x^2y^6 - 10881\,u_2{}^3t_1{}^4x^2y^6 - 7664\,u_2t_1{}^6x^2y^6 - 480\,t_1{}^2u_6x^2y^6 - 480\,t_1{}^2t_5x^2y^6 + 20\,t_1u_7x^2y^6 + 816\,u_2t_1u_3u_4x^2y^6 + 4896\,u_2t_1t_2t_3x^2y^6 - 5176\,u_2{}^2t_1{}^2t_3x^2y^6 + 6816\,t_1{}^5t_2x^2y^6 - 1630\,t_1{}^4u_4x^2y^6 - 3232\,t_1{}^4t_3x^2y^6 + 10356\,u_2{}^3t_1{}^2t_2x^2y^6 - 141\,u_2{}^3u_3{}^2x^2y^6 - 120\,u_2{}^2u_6x^2y^6 - 328\,u_2u_4t_3x^2y^6 + 10\,u_2u_7x^2y^6 - 164\,t_1u_4{}^2x^2y^6 + 140\,t_1t_6x^2y^6 +$$

$$19488\,u_2{}^2t_1{}^3t_2x^2y^6 - 2588\,u_2{}^2t_1{}^2u_4x^2y^6 + 189\,t_2u_6x^2y^6 - 342\,u_2t_3{}^2x^2y^6 - 89\,u_2u_4{}^2x^2y^6 - 84\,u_3{}^2t_3x^2y^6 - 7344\,t_1{}^3t_2{}^2x^2y^6 + 21\,u_4u_5x^2y^6 - 205\,u_2u_3t_4x^2y^6 - 246\,t_1t_2u_5x^2y^6 + 42\,t_3u_5x^2y^6 + 210\,t_3t_4x^2y^6 + 2112\,u_3t_1{}^5x^2y^6 - 756\,t_2{}^2t_3x^2y^6 - 378\,t_2{}^2u_4x^2y^6 - 852\,u_2{}^2t_1u_3{}^2x^2y^6 + 268\,t_1{}^3u_5x^2y^6 + 63\,u_3t_5x^2y^6 - 42\,u_3{}^2u_4x^2y^6 + 63\,u_3u_6x^2y^6 + 6456\,u_2{}^2u_3t_1{}^3x^2y^6 + 1340\,t_1{}^3t_4x^2y^6 - 972\,u_2{}^3t_1u_4x^2y^6 - 1944\,u_2{}^3t_1t_3x^2y^6 + 105\,u_4t_4x^2y^6 + 204\,u_2{}^2u_3u_4x^2y^6 + 69\,t_1u_3{}^3x^2y^6 - 612\,u_2{}^3t_2u_3x^2y^6 + 3132\,u_2{}^3t_1{}^2u_3x^2y^6 - 128\,t_1{}^7xy^7 + 8\,t_1u_3{}^3xy^7 + 2\,u_2u_7xy^7 - 10\,u_2{}^7xy^7 - 76\,t_1{}^3u_3{}^2xy^7 - 8\,t_7xy^7 - 4\,u_8xy^7 + 216\,t_1t_2{}^3xy^7 + 936\,u_2{}^3t_1{}^2t_2xy^7 - 72\,t_1{}^2u_6xy^7 + 60\,u_2{}^4t_1u_3xy^7 + 8\,t_3u_5xy^7 - 24\,t_1u_4{}^2xy^7 + 36\,t_2t_5xy^7 + 28\,t_1t_6xy^7 - 96\,t_1t_3{}^2xy^7 + 36\,t_2u_6xy^7 + 12\,u_3t_5xy^7 - 6\,u_3{}^2u_4xy^7 - 12\,u_3{}^2t_3xy^7 + 324\,u_2{}^4t_1t_2xy^7 + 32\,t_1{}^3u_5xy^7 + 160\,t_1{}^3t_4xy^7 - 608\,u_2t_1{}^6xy^7 + 168\,u_3t_1{}^5xy^7 - 72\,t_1{}^2t_5xy^7 + 4\,t_1u_7xy^7 - 108\,t_2{}^2t_3xy^7 - 54\,t_2{}^2u_4xy^7 - 104\,u_2{}^3t_1u_4xy^7 - 208\,u_2{}^3t_1t_3xy^7 - 54\,u_2{}^3t_2u_3xy^7 + 570\,u_2{}^2u_3t_1{}^3xy^7 + 24\,u_2{}^2u_3u_4xy^7 - 96\,u_2{}^2t_1u_3{}^2xy^7 - 14\,u_2{}^3u_3{}^2xy^7 + 264\,u_2{}^3t_1{}^2u_3xy^7 - 528\,u_2{}^2t_1{}^2t_3xy^7 - 576\,u_2{}^2t_1t_2{}^2xy^7 + 24\,u_2{}^2t_1u_5xy^7 + 120\,u_2{}^2t_1t_4xy^7 + 144\,u_2{}^2t_2t_3xy^7 + 72\,u_2{}^2t_2u_4xy^7 + 48\,u_2{}^2u_3t_3xy^7 - 468\,t_1{}^3t_2u_3xy^7 + 576\,t_1{}^5t_2xy^7 - 164\,t_1{}^4u_4xy^7 - 320\,t_1{}^4t_3xy^7 - 720\,t_1{}^3t_2{}^2xy^7 - 18\,u_2{}^2u_6xy^7 + 20\,u_4t_4xy^7 - 52\,u_2t_3{}^2xy^7 + 40\,t_3t_4xy^7 - 24\,u_2{}^4u_4xy^7 + 10\,u_2u_3{}^3xy^7 + 14\,u_2t_6xy^7 + 126\,u_2t_2{}^3xy^7 - 126\,u_2{}^3t_2{}^2xy^7 - 18\,u_2{}^2t_5xy^7 - 894\,u_2{}^3t_1{}^4xy^7 + 12\,u_3u_6xy^7 - 36\,t_1t_2u_5xy^7 - 180\,t_1t_2t_4xy^7 - 360\,u_2{}^2t_1t_2u_3xy^7 - 756\,u_2t_1{}^2t_2u_3xy^7 + 576\,u_2t_1t_2t_3xy^7 + 288\,u_2t_1t_2u_4xy^7 + 192\,u_2t_1u_3t_3xy^7 - 226\,u_2{}^5t_1{}^2xy^7 + 54\,u_2{}^5t_2xy^7 - 544\,u_2{}^4t_1{}^3xy^7 - 44\,u_2{}^4t_3xy^7 - 1016\,u_2{}^2t_1{}^5xy^7 + 6\,u_2{}^3u_5xy^7 + 30\,u_2{}^3t_4xy^7 + 1728\,u_2{}^2t_1{}^3t_2xy^7 - 264\,u_2{}^2t_1{}^2u_4xy^7 - 60\,t_1u_3t_4xy^7 - 96\,t_1u_4t_3xy^7 - 14\,u_2u_4{}^2xy^7 + 576\,t_1{}^2t_2t_3xy^7 + 288\,t_1{}^2t_2u_4xy^7 + 192\,t_1{}^2u_3t_3xy^7 + 54\,u_2t_2u_3{}^2xy^7 + 114\,u_2t_2{}^2u_3xy^7 - 18\,u_2t_2u_5xy^7 - 90\,u_2t_2t_4xy^7 - 36\,t_2u_3u_4xy^7 - 72\,t_2u_3t_3xy^7 + 4\,u_4u_5xy^7 - 162\,u_2t_1{}^2u_3{}^2xy^7 + 1728\,u_2t_1{}^4t_2xy^7 - 368\,u_2t_1{}^3u_4xy^7 - 736\,u_2t_1{}^3t_3xy^7 - 1170\,u_2t_1{}^2t_2{}^2xy^7 + 52\,u_2t_1{}^2u_5xy^7 + 260\,u_2t_1{}^2t_4xy^7 - 72\,u_2t_1u_6xy^7 + 552\,u_2u_3t_1{}^4xy^7 - 72\,u_2t_1t_5xy^7 - 6\,u_2u_3u_5xy^7 - 30\,u_2u_3t_4xy^7 - 48\,u_2u_4t_3xy^7 - 12\,t_1u_3u_5xy^7 - 60\,u_2{}^6t_1xy^7 + 72\,t_1t_2u_3{}^2xy^7 + 96\,t_1{}^2u_3u_4xy^7 + 96\,u_2t_1u_3u_4xy^7 + 216\,t_1t_2{}^2u_3xy^7 + 6\,u_3u_2{}^5xy^7$$

$$36\,u_2{}^3u_6x^8y + 2848\,u_2{}^2t_1{}^6x^8y - 3\,u_2{}^2u_7x^8y + 1408\,u_2t_1{}^7x^8y + 32\,t_1t_7x^8y + 16\,t_1u_8x^8y + 96\,t_1{}^2u_4{}^2x^8y - 40\,t_1{}^2u_3{}^3x^8y - 84\,t_1{}^2t_6x^8y + 384\,t_1{}^2t_3{}^2x^8y - 1080\,t_1{}^2t_2{}^3x^8y - 4992\,u_2t_1{}^5t_2x^8y + 1160\,u_2t_1{}^4u_4x^8y + 2304\,u_2t_1{}^4t_3x^8y + 4848\,u_2t_1{}^3t_2{}^2x^8y - 12\,u_2u_4u_5x^8y - 60\,u_2u_4t_4x^8y - 24\,u_2t_3u_5x^8y - 120\,u_2t_3t_4x^8y - 108\,u_2t_2t_5x^8y + 456\,u_2t_2{}^2t_3x^8y + 228\,u_2t_2{}^2u_4x^8y - 108\,u_2t_2u_6x^8y - 36\,u_2u_3t_5x^8y + 36\,u_2u_3{}^2u_4x^8y + 72\,u_2u_3{}^2t_3x^8y - 36\,u_2u_3u_6x^8y - 184\,u_2t_1{}^3u_5x^8y - 920\,u_2t_1{}^3t_4x^8y + 312\,u_2t_1{}^2u_6x^8y - 1560\,u_2u_3t_1{}^5x^8y + 312\,u_2t_1{}^2t_5x^8y - 12\,u_2t_1u_7x^8y - 24\,t_1u_4u_5x^8y + 612\,u_2t_1{}^3u_3{}^2x^8y - 612\,u_2{}^5t_1t_2x^8y - 108\,u_2{}^5t_1u_3x^8y - 2136\,u_2{}^4t_1{}^2t_2x^8y - 504\,u_2{}^4t_1{}^2u_3x^8y + 224\,u_2{}^4t_1u_4x^8y + 432\,u_2{}^4t_1t_3x^8y + 90\,u_2{}^4t_2u_3x^8y - 1380\,u_2{}^3u_3t_1{}^3x^8y - 36\,u_2{}^3u_3u_4x^8y + 168\,u_2{}^3t_1u_3{}^2x^8y - 4560\,u_2{}^3t_1{}^3t_2x^8y + 624\,u_2{}^3t_1{}^2u_4x^8y + 1248\,u_2{}^3t_1{}^2t_3x^8y + 1368\,u_2{}^3t_1t_2{}^2x^8y - 52\,u_2{}^3t_1u_5x^8y - 260\,u_2{}^3t_1t_4x^8y - 312\,u_2{}^3t_2t_3x^8y - 156\,u_2{}^3t_2u_4x^8y - 72\,u_2{}^3u_3t_3x^8y - 144\,u_2{}^2t_2u_3{}^2x^8y - 288\,u_2{}^2t_2{}^2u_3x^8y + 36\,u_2{}^2t_2u_5x^8y + 180\,u_2{}^2t_2t_4x^8y + 12\,u_2{}^2u_3u_5x^8y + 60\,u_2{}^2u_3t_4x^8y + 96\,u_2{}^2u_4t_3x^8y + 540\,u_2{}^2t_1{}^2u_3{}^2x^8y - 6516\,u_2{}^2t_1{}^4t_2x^8y + 1152\,u_2{}^2t_1{}^3u_4x^8y + 2304\,u_2{}^2t_1{}^3t_3x^8y + 3612\,u_2{}^2t_1{}^2t_2{}^2x^8y - 132\,u_2{}^2t_1{}^2u_5x^8y - 660\,u_2{}^2t_1{}^2t_4x^8y + 144\,u_2{}^2t_1u_6x^8y - 2124\,u_2{}^2u_3t_1{}^4x^8y + 144\,u_2{}^2t_1t_5x^8y + 144\,t_1{}^2t_2u_5x^8y + 720\,t_1{}^2t_2t_4x^8y + 1368\,t_1{}^4t_2u_3x^8y + 48\,t_1{}^2u_3u_5x^8y + 240\,t_1{}^2u_3t_4x^8y + 384\,t_1{}^2u_4t_3x^8y - 312\,t_1{}^3u_3u_4x^8y - 1920\,t_1{}^3t_2t_3x^8y - 960\,t_1{}^3t_2u_4x^8y - 624\,t_1{}^3u_3t_3x^8y - 360\,t_1{}^2t_2u_3{}^2x^8y - 1080\,t_1{}^2t_2{}^2u_3x^8y + 104\,u_2t_1u_4{}^2x^8y - 76\,u_2t_1u_3{}^3x^8y - 84\,u_2t_1t_6x^8y + 400\,u_2t_1t_3{}^2x^8y + 54\,t_2{}^2u_3{}^2x^8y - 27\,t_2{}^2u_5x^8y - 135\,t_2{}^2t_4x^8y - 36\,t_2u_4{}^2x^8y + 12\,t_2u_3{}^3x^8y + 42\,t_2t_6x^8y - 28\,u_2{}^2u_3{}^3x^8y + 16\,u_2t_7x^8y + 10\,t_4u_5x^8y + 6\,t_2u_7x^8y - 12\,u_3u_4{}^2x^8y + 14\,u_3t_6x^8y - 48\,u_3t_3{}^2x^8y - 3\,u_3{}^2u_5x^8y - 15\,u_3{}^2t_4x^8y + 2\,u_3u_7x^8y + 24\,u_4t_5x^8y - 18\,t_2u_3u_5x^8y + 256\,t_1{}^8x^8y + 81\,t_2{}^4x^8y + 15\,u_2{}^8x^8y + 25\,t_4{}^2x^8y + u_5{}^2x^8y - 9\,t_8x^8y - 3\,u_9x^8y + 105\,u_3t_2{}^3x^8y - 90\,u_2{}^6t_2x^8y + 1144\,u_2{}^5t_1{}^3x^8y + 72\,u_2{}^5t_3x^8y + 3048\,u_2{}^3t_1{}^5x^8y - 11\,u_2{}^4u_5x^8y - 55\,u_2{}^4t_4x^8y - 6\,u_3u_2{}^6x^8y + 21\,u_2{}^4u_3{}^2x^8y - 1440\,u_2{}^2t_1t_2t_3x^8y - 720\,u_2{}^2t_1t_2u_4x^8y - 480\,u_2{}^2t_1u_3t_3x^8y + 144\,u_2t_1t_2u_5x^8y + 720\,u_2t_1t_2t_4x^8y + 3132\,u_2t_1{}^3t_2u_3x^8y + 144\,u_2t_2u_3u_4x^8y + 288\,u_2t_2u_3t_3x^8y + 48\,u_2t_1u_3u_5x^8y + 240\,u_2t_1u_3t_4x^8y + 384\,u_2t_1u_4t_3x^8y + 216\,t_1{}^4u_3{}^2x^8y - 1344\,t_1{}^6t_2x^8y + 400\,t_1{}^5u_4x^8y + 768\,t_1{}^5t_3x^8y + 2160\,t_1{}^4t_2{}^2x^8y - 80\,t_1{}^4u_5x^8y - 400\,t_1{}^4t_4x^8y + 192\,t_1{}^3u_6x^8y - 384\,u_3t_1{}^6x^8y + 192\,t_1{}^3t_5x^8y -$$

$$12\,t_1{}^2u_7x^8y+104\,u_2{}^2t_3{}^2x^8y+28\,u_2{}^2u_4{}^2x^8y+40\,u_2{}^5u_4x^8y+8\,u_2u_8x^8y-21\,u_2{}^2t_6x^8y-324\,u_2{}^2t_2{}^3x^8y+261\,u_2{}^4t_2{}^2x^8y+36\,u_2{}^3t_5x^8y+2204\,u_2{}^4t_1{}^4x^8y+104\,u_2{}^7t_1x^8y+412\,u_2{}^6t_1{}^2x^8y+24\,u_4u_6x^8y+48\,t_3t_5x^8y+48\,t_3u_6x^8y-240\,u_2{}^2t_1u_3u_4x^8y-120\,t_1u_4t_4x^8y-90\,t_2u_3t_4x^8y-144\,t_2u_4t_3x^8y-1512\,u_2t_1{}^2t_2u_4x^8y-1008\,u_2t_1{}^2u_3t_3x^8y-468\,u_2t_1t_2u_3{}^2x^8y-1116\,u_2t_1t_2{}^2u_3x^8y+288\,t_1t_2u_3u_4x^8y+576\,t_1t_2u_3t_3x^8y-48\,u_3u_4t_3x^8y+720\,u_2{}^3t_1t_2u_3x^8y+2304\,u_2{}^2t_1{}^2t_2u_3x^8y-144\,t_2t_3{}^2x^8y+864\,t_1t_2{}^2t_3x^8y-504\,u_2t_1{}^2u_3u_4x^8y-3024\,u_2t_1{}^2t_2t_3x^8y-216\,t_1t_2t_5x^8y+48\,t_1u_3{}^2u_4x^8y+432\,t_1t_2{}^2u_4x^8y-216\,t_1t_2u_6x^8y-72\,t_1u_3t_5x^8y+96\,t_1u_3{}^2t_3x^8y-72\,t_1u_3u_6x^8y-1188\,u_2t_1t_2{}^3x^8y-48\,t_1t_3u_5x^8y-240\,t_1t_3t_4x^8y-144\,t_2u_3u_5x^7y^2-13590\,u_2t_1t_2{}^3x^7y^2-1486\,u_2{}^2t_1{}^2u_5x^7y^2+351\,u_2{}^2t_2u_5x^7y^2+1755\,u_2{}^2t_2t_4x^7y^2+117\,u_2{}^2u_3u_5x^7y^2+585\,u_2{}^2u_3t_4x^7y^2+936\,u_2{}^2u_4t_3x^7y^2+6615\,u_2{}^2t_1{}^2u_3{}^2x^7y^2-95616\,u_2{}^2t_1{}^4t_2x^7y^2+14912\,u_2{}^2t_1{}^3u_4x^7y^2+29824\,u_2{}^2t_1{}^3t_3x^7y^2+47871\,u_2{}^2t_1{}^2t_2{}^2x^7y^2-74016\,u_2t_1{}^5t_2x^7y^2+14958\,u_2t_1{}^4u_4x^7y^2+29824\,u_2t_1{}^4t_3x^7y^2+64230\,u_2t_1{}^3t_2{}^2x^7y^2-94\,u_2u_4u_5x^7y^2-470\,u_2u_4t_4x^7y^2-188\,u_2t_3u_5x^7y^2-940\,u_2t_3t_4x^7y^2-846\,u_2t_2t_5x^7y^2+4410\,u_2t_2{}^2t_3x^7y^2+2205\,u_2t_2{}^2u_4x^7y^2-846\,u_2t_2u_6x^7y^2-282\,u_2u_3t_5x^7y^2+309\,u_2u_3{}^2u_4x^7y^2+618\,u_2u_3{}^2t_3x^7y^2-282\,u_2u_3u_6x^7y^2-2044\,u_2t_1{}^3u_5x^7y^2-10220\,u_2t_1{}^3t_4x^7y^2+2916\,u_2t_1{}^2u_6x^7y^2-23700\,u_2u_3t_1{}^5x^7y^2+2916\,u_2t_1{}^2t_5x^7y^2-92\,u_2t_1u_7x^7y^2-188\,t_1u_4u_5x^7y^2+7864\,u_2t_1{}^3u_3{}^2x^7y^2-8136\,u_2{}^5t_1t_2x^7y^2-1788\,u_2{}^5t_1u_3x^7y^2-29736\,u_2{}^4t_1{}^2t_2x^7y^2-7968\,u_2{}^4t_1{}^2u_3x^7y^2+2612\,u_2{}^4t_1u_4x^7y^2+5132\,u_2{}^4t_1t_3x^7y^2+1377\,u_2{}^4t_2u_3x^7y^2-20787\,u_2{}^3u_3t_1{}^3x^7y^2-468\,u_2{}^3u_3u_4x^7y^2+2194\,u_2{}^3t_1u_3{}^2x^7y^2-66360\,u_2{}^3t_1{}^3t_2x^7y^2+7924\,u_2{}^3t_1{}^2u_4x^7y^2+15848\,u_2{}^3t_1{}^2t_3x^7y^2+17586\,u_2{}^3t_1t_2{}^2x^7y^2-558\,u_2{}^3t_1u_5x^7y^2-2790\,u_2{}^3t_1t_4x^7y^2-3384\,u_2{}^3t_2t_3x^7y^2-1692\,u_2{}^3t_2u_4x^7y^2-936\,u_2{}^3u_3t_3x^7y^2-1485\,u_2{}^2t_2u_3{}^2x^7y^2-3327\,u_2{}^2t_2{}^2u_3x^7y^2-120\,u_3{}^2t_4x^7y^2+12\,u_3u_7x^7y^2+144\,u_4t_5x^7y^2+10134\,u_2{}^3t_1t_2u_3x^7y^2+30942\,u_2{}^2t_1{}^2t_2u_3x^7y^2-2808\,u_2{}^2t_1u_3u_4x^7y^2-940\,t_1u_4t_4x^7y^2-376\,t_1t_3u_5x^7y^2-1880\,t_1t_3t_4x^7y^2-1692\,t_1t_2t_5x^7y^2+8532\,t_1t_2{}^2t_3x^7y^2-7430\,u_2{}^2t_1{}^2t_4x^7y^2+1386\,u_2{}^2t_1u_6x^7y^2-31410\,u_2{}^2u_3t_1{}^4x^7y^2+1386\,u_2{}^2t_1t_5x^7y^2+1404\,t_1{}^2t_2u_5x^7y^2+7020\,t_1{}^2t_2t_4x^7y^2+19116\,t_1{}^4t_2u_3x^7y^2+468\,t_1{}^2u_3u_5x^7y^2+2340\,t_1{}^2u_3t_4x^7y^2+3744\,t_1{}^2u_4t_3x^7y^2-3696\,t_1{}^3u_3u_4x^7y^2-22464\,t_1{}^3t_2t_3x^7y^2-11232\,t_1{}^3t_2u_4x^7y^2-7392\,t_1{}^3u_3t_3x^7y^2-4248\,t_1{}^2t_2u_3{}^2x^7y^2-12744\,t_1{}^2t_2{}^2u_3x^7y^2+982\,u_2t_1u_4{}^2x^7y^2-754\,u_2t_1u_3{}^3x^7y^2-644\,u_2t_1t_6x^7y^2+3836\,u_2t_1t_3{}^2x^7y^2+252\,t_2t_6x^7y^2-259\,u_2{}^2u_3{}^3x^7y^2+92\,u_2t_7x^7y^2+60\,t_4u_5x^7y^2+36\,t_2u_7x^7y^2-96\,u_3u_4{}^2x^7y^2+84\,u_3t_6x^7y^2-384\,u_3t_3{}^2x^7y^2-24\,u_3{}^2u_5x^7y^2+46\,u_2u_8x^7y^2-161\,u_2{}^2t_6x^7y^2-3609\,u_2{}^2t_2{}^3x^7y^2+3063\,u_2{}^4t_2{}^2x^7y^2+303\,u_2{}^3t_5x^7y^2+33833\,u_2{}^4t_1{}^4x^7y^2+1352\,u_2{}^7t_1x^7y^2+5851\,u_2{}^6t_1{}^2x^7y^2+144\,u_4u_6x^7y^2+288\,t_3t_5x^7y^2+288\,t_3u_6x^7y^2+4266\,t_1t_2{}^2u_4x^7y^2-1692\,t_1t_2u_6x^7y^2-564\,t_1u_3t_5x^7y^2+474\,t_1u_3{}^2u_4x^7y^2+948\,t_1u_3{}^2t_3x^7y^2-564\,t_1u_3u_6x^7y^2+45336\,u_2{}^2t_1{}^6x^7y^2+23136\,u_2t_1{}^7x^7y^2+184\,t_1t_7x^7y^2+92\,t_1u_8x^7y^2+936\,t_1{}^2u_4{}^2x^7y^2-472\,t_1{}^2u_3{}^3x^7y^2-644\,t_1{}^2t_6x^7y^2+3744\,t_1{}^2t_3{}^2x^7y^2-12744\,t_1{}^2t_2{}^3x^7y^2+3092\,t_1{}^4u_3{}^2x^7y^2-20928\,t_1{}^6t_2x^7y^2+5308\,t_1{}^5u_4x^7y^2+10432\,t_1{}^5t_3x^7y^2+29520\,t_1{}^4t_2{}^2x^7y^2-928\,t_1{}^4u_5x^7y^2-4640\,t_1{}^4t_4x^7y^2+1848\,t_1{}^3u_6x^7y^2-6360\,u_3t_1{}^6x^7y^2+1848\,t_1{}^3t_5x^7y^2-92\,t_1{}^2u_7x^7y^2+982\,u_2{}^2t_3{}^2x^7y^2+257\,u_2{}^2u_4{}^2x^7y^2+420\,u_2{}^5u_4x^7y^2-216\,t_2{}^2u_5x^7y^2-1080\,t_2{}^2t_4x^7y^2-288\,t_2u_4{}^2x^7y^2+120\,t_2u_3{}^3x^7y^2-23\,u_2{}^2u_7x^7y^2+1068\,u_3t_2{}^3x^7y^2-1101\,u_2{}^6t_2x^7y^2+16926\,u_2{}^5t_1{}^3x^7y^2+794\,u_2{}^5t_3x^7y^2+47990\,u_2{}^3t_1{}^5x^7y^2-105\,u_2{}^4u_5x^7y^2-1152\,t_2t_3{}^2x^7y^2+540\,t_2{}^2u_3{}^2x^7y^2+287\,u_2{}^4u_3{}^2x^7y^2+303\,u_2{}^3u_6x^7y^2+4480\,t_1{}^8x^7y^2+810\,t_2{}^4x^7y^2+169\,u_2{}^8x^7y^2+150\,t_4{}^2x^7y^2+6\,u_5{}^2x^7y^2+6\,u_3{}^4x^7y^2-36\,t_8x^7y^2-12\,u_9x^7y^2+5688\,t_1t_2u_3t_3x^7y^2-525\,u_2{}^4t_4x^7y^2-165\,u_3u_2{}^6x^7y^2+2844\,u_2t_2u_3t_3x^7y^2+468\,u_2t_1u_3u_5x^7y^2+2340\,u_2t_1u_3t_4x^7y^2+3744\,u_2t_1u_4t_3x^7y^2-720\,t_2u_3t_4x^7y^2-1152\,t_2u_4t_3x^7y^2-16848\,u_2{}^2t_1t_2t_3x^7y^2-8424\,u_2{}^2t_1t_2u_4x^7y^2-5616\,u_2{}^2t_1u_3t_3x^7y^2+1404\,u_2t_1t_2u_5x^7y^2+7020\,u_2t_1t_2t_4x^7y^2-384\,u_3u_4t_3x^7y^2+1422\,u_2t_2u_3u_4x^7y^2-5808\,u_2t_1{}^2u_3u_4x^7y^2-34848\,u_2t_1{}^2t_2t_3x^7y^2-17424\,u_2t_1{}^2t_2u_4x^7y^2-11616\,u_2t_1{}^2u_3t_3x^7y^2-5094\,u_2t_1t_2u_3{}^2x^7y^2-13026\,u_2t_1t_2{}^2u_3x^7y^2+2844\,t_1t_2u_3u_4x^7y^2+41922\,u_2t_1{}^3t_2u_3x^7y^2+134184\,u_2{}^2t_1{}^2t_2u_3x^6y^3-11044\,u_2{}^2t_1u_3u_4x^6y^3-2890\,t_1u_4t_4x^6y^3-1156\,t_1t_3u_5x^6y^3-35328\,u_2{}^5t_1t_2x^6y^3+4884\,u_2{}^2t_1t_5x^6y^3-1208\,u_3u_4t_3x^6y^3+44572\,u_2{}^3t_1t_2u_3x^6y^3+27\,u_3{}^4x^6y^3-5780\,t_1t_3t_4x^6y^3-5298\,t_1t_2t_5x^6y^3+30384\,t_1t_2{}^2t_3x^6y^3+4944\,t_1{}^2t_2u_5x^6y^3+24720\,t_1{}^2t_2t_4x^6y^3+$$

$$84314\,t_1{}^4t_2u_3x^6y^3+1648\,t_1{}^2u_3u_5x^6y^3-5298\,t_1t_2u_6x^6y^3-1766\,t_1u_3t_5x^6y^3+1688\,t_1u_3{}^2u_4x^6y^3+8240\,t_1{}^2u_3t_4x^6y^3+13056\,t_1{}^2u_4t_3x^6y^3-14596\,t_1{}^3u_3u_4x^6y^3-84\,t_8x^6y^3-28\,u_9x^6y^3-1766\,t_1u_3u_6x^6y^3+1234\,u_2{}^4u_3{}^2x^6y^3+1008\,u_2{}^3u_6x^6y^3+222896\,u_2{}^2t_1{}^6x^6y^3+15192\,t_1t_2{}^2u_4x^6y^3+3376\,t_1u_3{}^2t_3x^6y^3-344368\,u_2t_1{}^5t_2x^6y^3-22692\,u_2t_1{}^2u_3u_4x^6y^3-136152\,u_2t_1{}^2t_2t_3x^6y^3-68076\,u_2t_1{}^2t_2u_4x^6y^3-45384\,u_2t_1{}^2u_3t_3x^6y^3-19587\,u_2t_1t_2u_3{}^2x^6y^3-51697\,u_2t_1t_2{}^2u_3x^6y^3+10128\,t_1t_2u_3u_4x^6y^3+20256\,t_1t_2u_3t_3x^6y^3+231\,u_3t_6x^6y^3-76\,u_3{}^2u_5x^6y^3-380\,u_3{}^2t_4x^6y^3+33\,u_3u_7x^6y^3+388\,u_4t_5x^6y^3-1208\,u_3t_3{}^2x^6y^3-8520\,u_2{}^5t_1u_3x^6y^3-133370\,u_2{}^4t_1{}^2t_2x^6y^3-37686\,u_2{}^4t_1{}^2u_3x^6y^3+10460\,u_2{}^4t_1u_4x^6y^3-88352\,t_1{}^3t_2t_3x^6y^3-44176\,t_1{}^3t_2u_4x^6y^3-29192\,t_1{}^3u_3t_3x^6y^3-16938\,t_1{}^2t_2u_3{}^2x^6y^3-50814\,t_1{}^2t_2{}^2u_3x^6y^3+3390\,u_2t_1u_4{}^2x^6y^3-2765\,u_2t_1u_3{}^3x^6y^3-2016\,u_2t_1t_6x^6y^3+13308\,u_2t_1t_3{}^2x^6y^3-456\,t_2u_3u_5x^6y^3-2280\,t_2u_3t_4x^6y^3-3624\,t_2u_4t_3x^6y^3-33132\,u_2{}^2t_1t_2u_4x^6y^3-22088\,u_2{}^2t_1u_3t_3x^6y^3+4944\,u_2t_1t_2u_5x^6y^3+24720\,u_2t_1t_2t_4x^6y^3+181405\,u_2t_1{}^3t_2u_3x^6y^3+5064\,u_2t_2u_3u_4x^6y^3+10128\,u_2t_2u_3t_3x^6y^3+1648\,u_2t_1u_3u_5x^6y^3+8240\,u_2t_1u_3t_4x^6y^3+13056\,u_2t_1u_4t_3x^6y^3-442410\,u_2{}^2t_1{}^4t_2x^6y^3+63088\,u_2{}^2t_1{}^3u_4x^6y^3+126176\,u_2{}^2t_1{}^3t_3x^6y^3+206354\,u_2{}^2t_1{}^2t_2{}^2x^6y^3-5749\,u_2{}^2t_1{}^2u_5x^6y^3-28745\,u_2{}^2t_1{}^2t_4x^6y^3+4884\,u_2{}^2t_1u_6x^6y^3-145842\,u_2{}^2u_3t_1{}^4x^6y^3-66264\,u_2{}^2t_1t_2t_3x^6y^3+63214\,u_2t_1{}^4u_4x^6y^3+126176\,u_2t_1{}^4t_3x^6y^3+276688\,u_2t_1{}^3t_2{}^2x^6y^3-289\,u_2u_4u_5x^6y^3-1445\,u_2u_4t_4x^6y^3-578\,u_2t_3u_5x^6y^3-2890\,u_2t_3t_4x^6y^3-2649\,u_2t_2t_5x^6y^3+15580\,u_2t_2{}^2t_3x^6y^3+7790\,u_2t_2{}^2u_4x^6y^3-2649\,u_2t_2u_6x^6y^3-883\,u_2u_3t_5x^6y^3+1038\,u_2u_3{}^2u_4x^6y^3+2076\,u_2u_3{}^2t_3x^6y^3-883\,u_2u_3u_6x^6y^3-7858\,u_2t_1{}^3u_5x^6y^3-39290\,u_2t_1{}^3t_4x^6y^3+10156\,u_2t_1{}^2u_6x^6y^3-111404\,u_2u_3t_1{}^5x^6y^3+10156\,u_2t_1{}^2t_5x^6y^3-288\,u_2t_1u_7x^6y^3-578\,t_1u_4u_5x^6y^3+33343\,u_2t_1{}^3u_3{}^2x^6y^3+2943\,t_2{}^4x^6y^3+3896\,u_3t_2{}^3x^6y^3-4551\,u_2{}^6t_2x^6y^3+79382\,u_2{}^5t_1{}^3x^6y^3+3046\,u_2{}^5t_3x^6y^3+234334\,u_2{}^3t_1{}^5x^6y^3-372\,u_2{}^4u_5x^6y^3-1860\,u_2{}^4t_4x^6y^3-845\,u_3u_2{}^6x^6y^3+23296\,t_1{}^8x^6y^3+680\,u_2{}^8x^6y^3+400\,t_4{}^2x^6y^3+16\,u_5{}^2x^6y^3+776\,t_3u_6x^6y^3-3624\,t_2t_3{}^2x^6y^3+1962\,t_2{}^2u_3{}^2x^6y^3-684\,t_2{}^2u_5x^6y^3-3420\,t_2{}^2t_4x^6y^3-906\,t_2u_4{}^2x^6y^3+436\,t_2u_3{}^3x^6y^3-72\,u_2{}^2u_7x^6y^3+115808\,u_2t_1{}^7x^6y^3+504\,t_1t_7x^6y^3+252\,t_1u_8x^6y^3+3264\,t_1{}^2u_4{}^2x^6y^3-1882\,t_1{}^2u_3{}^3x^6y^3-2016\,t_1{}^2t_6x^6y^3+13056\,t_1{}^2t_3{}^2x^6y^3-50814\,t_1{}^2t_3{}^3x^6y^3+13758\,t_1{}^4u_3{}^2x^6y^3-100064\,t_1{}^6t_2x^6y^3+22876\,t_1{}^5u_4x^6y^3+45248\,t_1{}^5t_3x^6y^3+129120\,t_1{}^4t_2{}^2x^6y^3-3640\,t_1{}^4u_5x^6y^3-18200\,t_1{}^4t_4x^6y^3+6512\,t_1{}^3u_6x^6y^3-31184\,u_3t_1{}^6x^6y^3+6512\,t_1{}^3t_5x^6y^3-288\,t_1{}^2u_7x^6y^3+3390\,u_2{}^2t_3{}^2x^6y^3+879\,u_2{}^2u_4{}^2x^6y^3+1586\,u_2{}^5u_4x^6y^3+126\,u_2u_8x^6y^3-504\,u_2{}^2t_6x^6y^3-14028\,u_2{}^2t_2{}^3x^6y^3+12372\,u_2{}^4t_2{}^2x^6y^3+1008\,u_2{}^3t_5x^6y^3+162623\,u_2{}^4t_1{}^4x^6y^3+5870\,u_2{}^7t_1x^6y^3+26671\,u_2{}^6t_1{}^2x^6y^3+388\,u_4u_6x^6y^3+776\,t_3t_5x^6y^3-53463\,u_2t_1t_2{}^3x^6y^3+20668\,u_2{}^4t_1t_3x^6y^3+6146\,u_2{}^4t_2u_3x^6y^3-97116\,u_2{}^3u_3t_1{}^3x^6y^3-1884\,u_2{}^3u_3u_4x^6y^3+9282\,u_2{}^3t_1u_3{}^2x^6y^3-305380\,u_2{}^3t_1{}^3t_2x^6y^3+693\,t_2t_6x^6y^3-912\,u_2{}^2u_3{}^3x^6y^3+252\,u_2t_7x^6y^3+160\,t_4u_5x^6y^3+99\,t_2u_7x^6y^3-302\,u_3u_4{}^2x^6y^3-6428\,u_2{}^3t_2u_4x^6y^3-3768\,u_2{}^3u_3t_3x^6y^3-5559\,u_2{}^2t_2u_3{}^2x^6y^3-13145\,u_2{}^2t_2{}^2u_3x^6y^3+1236\,u_2{}^2t_2u_5x^6y^3+6180\,u_2{}^2t_2t_4x^6y^3+412\,u_2{}^2u_3u_5x^6y^3+33176\,u_2{}^3t_1{}^2u_4x^6y^3+66352\,u_2{}^3t_1{}^2t_3x^6y^3+74598\,u_2{}^3t_1t_2{}^2x^6y^3-2109\,u_2{}^3t_1u_5x^6y^3-10545\,u_2{}^3t_1t_4x^6y^3-12856\,u_2{}^3t_2t_3x^6y^3+3264\,u_2{}^2u_4t_3x^6y^3+27442\,u_2{}^2t_1{}^2u_3{}^2x^6y^3+2060\,u_2{}^2u_3t_4x^6y^3+1767\,u_2{}^3u_6x^5y^4-1754\,u_3u_2{}^6x^5y^4+2417\,u_2{}^4u_3{}^2x^5y^4+812\,t_1t_7x^5y^4+469766\,u_2{}^2t_1{}^6x^5y^4-123\,u_2{}^2u_7x^5y^4+246080\,u_2t_1{}^7x^5y^4-100773\,u_2t_1t_2{}^3x^5y^4+88290\,u_2{}^3t_1t_2u_3x^5y^4+264678\,u_2{}^2t_1{}^2t_2u_3x^5y^4-20706\,u_2{}^2t_1u_3u_4x^5y^4-4820\,t_1u_4t_4x^5y^4-1928\,t_1t_3u_5x^5y^4-9640\,t_1t_3t_4x^5y^4-8982\,t_1t_2t_5x^5y^4+54468\,t_1t_2{}^2t_3x^5y^4+27234\,t_1t_2{}^2u_4x^5y^4-8982\,t_1t_2u_6x^5y^4-2994\,t_1u_3t_5x^5y^4+3026\,t_1u_3{}^2u_4x^5y^4+6052\,t_1u_3{}^2t_3x^5y^4-2994\,t_1u_3u_6x^5y^4+255600\,t_1{}^4t_2{}^2x^5y^4-6832\,t_1{}^4u_5x^5y^4-34160\,t_1{}^4t_4x^5y^4+11688\,t_1{}^3u_6x^5y^4-65144\,u_3t_1{}^6x^5y^4+11688\,t_1{}^3t_5x^5y^4-492\,t_1{}^2u_7x^5y^4+5969\,u_2{}^2t_3{}^2x^5y^4+1543\,u_2{}^2u_4{}^2x^5y^4+2933\,u_2{}^5u_4x^5y^4+203\,u_2u_8x^5y^4-861\,u_2{}^2t_6x^5y^4-26316\,u_2{}^2t_2{}^3x^5y^4+23667\,u_2{}^4t_2{}^2x^5y^4+1767\,u_2{}^3t_5x^5y^4+339009\,u_2{}^4t_1{}^4x^5y^4+11643\,u_2{}^7t_1x^5y^4+54123\,u_2{}^6t_1{}^2x^5y^4+612\,u_4u_6x^5y^4+1224\,t_3t_5x^5y^4+1224\,t_3u_6x^5y^4-6132\,t_2t_3{}^2x^5y^4+3564\,t_2{}^2u_3{}^2x^5y^4-1161\,t_2{}^2u_5x^5y^4-5805\,t_2{}^2t_4x^5y^4-1533\,t_2u_4{}^2x^5y^4+792\,t_2u_3{}^3x^5y^4+1113\,t_2t_6x^5y^4-1640\,u_2{}^2u_3{}^3x^5y^4+406\,u_2t_7x^5y^4+250\,t_4u_5x^5y^4+159\,t_2u_7x^5y^4-511\,u_3u_4{}^2x^5y^4+371\,u_3t_6x^5y^4-2044\,u_3t_3{}^2x^5y^4-$$

$$129\,u_3^2u_5x^5y^4 - 645\,u_3^2t_4x^5y^4 + 53\,u_3u_7x^5y^4 + 612\,u_4t_5x^5y^4 + 5346\,t_2^4x^5y^4 - 704184\,u_2t_1^5t_2x^5y^4 + 122935\,u_2t_1^4u_4x^5y^4 + 245464\,u_2t_1^4t_3x^5y^4 + 544278\,u_2t_1^3t_2^2x^5y^4 - 482\,u_2u_4u_5x^5y^4 - 2410\,u_2u_4t_4x^5y^4 - 964\,u_2t_3u_5x^5y^4 - 4820\,u_2t_3t_4x^5y^4 - 4491\,u_2t_2t_5x^5y^4 + 27846\,u_2t_2^2t_3x^5y^4 + 13923\,u_2t_2^2u_4x^5y^4 - 4491\,u_2t_2u_6x^5y^4 - 1497\,u_2u_3t_5x^5y^4 + 1819\,u_2u_3^2u_4x^5y^4 + 3638\,u_2u_3^2t_3x^5y^4 - 1497\,u_2u_3u_6x^5y^4 - 14628\,u_2t_1^3u_5x^5y^4 - 73140\,u_2t_1^3t_4x^5y^4 + 18144\,u_2t_1^2u_6x^5y^4 - 228680\,u_2u_3t_1^5x^5y^4 + 18144\,u_2t_1^2t_5x^5y^4 - 492\,u_2t_1u_7x^5y^4 - 964\,t_1u_4u_5x^5y^4 + 65171\,u_2t_1^3u_3^2x^5y^4 - 69894\,u_2^5t_1t_2x^5y^4 - 17454\,u_2^5t_1u_3x^5y^4 - 268179\,u_2^4t_1^2t_2x^5y^4 - 77297\,u_2^4t_1^2u_3x^5y^4 + 19869\,u_2^4t_1u_4x^5y^4 + 39332\,u_2^4t_1t_3x^5y^4 + 12195\,u_2^4t_2u_3x^5y^4 - 198729\,u_2^3u_3t_1^3x^5y^4 - 3554\,u_2^3u_3u_4x^5y^4 + 18100\,u_2^3t_1u_3^2x^5y^4 - 621330\,u_2^3t_1^3t_2x^5y^4 + 64249\,u_2^3t_1^2u_4x^5y^4 + 128498\,u_2^3t_1^2t_3x^5y^4 + 145800\,u_2^3t_1t_2^2x^5y^4 - 3898\,u_2^3t_1u_5x^5y^4 - 19490\,u_2^3t_1t_4x^5y^4 - 23772\,u_2^3t_2t_3x^5y^4 - 11886\,u_2^3t_2u_4x^5y^4 - 7108\,u_2^3u_3t_3x^5y^4 - 10269\,u_2^2t_2u_3^2x^5y^4 - 24819\,u_2^2t_2^2u_3x^5y^4 + 2202\,u_2^2t_2u_5x^5y^4 + 11010\,u_2^2t_2t_4x^5y^4 + 734\,u_2^2u_3u_5x^5y^4 + 3670\,u_2^2u_3t_4x^5y^4 + 5766\,u_2^2u_4t_3x^5y^4 + 53185\,u_2^2t_1^2u_3^2x^5y^4 - 902469\,u_2^2t_1^4t_2x^5y^4 + 122732\,u_2^2t_1^3u_4x^5y^4 + 245464\,u_2^2t_1^3t_3x^5y^4 + 406089\,u_2^2t_1^2t_2^2x^5y^4 - 10730\,u_2^2t_1^2u_5x^5y^4 - 53650\,u_2^2t_1^2t_4x^5y^4 + 8766\,u_2^2t_1u_6x^5y^4 - 297901\,u_2^2u_3t_1^4x^5y^4 + 8766\,u_2^2t_1t_5x^5y^4 + 8808\,t_1^2t_2u_5x^5y^4 + 44040\,t_1^2t_2t_4x^5y^4 + 167406\,t_1^4t_2u_3x^5y^4 + 2936\,t_1^2u_3u_5x^5y^4 + 14680\,t_1^2u_3t_4x^5y^4 + 23064\,t_1^2u_4t_3x^5y^4 - 27404\,t_1^3u_3u_4x^5y^4 - 165648\,t_1^3t_2t_3x^5y^4 - 82824\,t_1^3t_2u_4x^5y^4 - 54808\,t_1^3u_3t_3x^5y^4 - 32094\,t_1^2t_2u_3^2x^5y^4 - 96282\,t_1^2t_2^2u_3x^5y^4 + 5969\,u_2t_1u_4^2x^5y^4 - 5063\,u_2t_1u_3^3x^5y^4 - 3444\,u_2t_1t_6x^5y^4 + 23470\,u_2t_1t_3^2x^5y^4 - 774\,t_2u_3u_5x^5y^4 - 3870\,t_2u_3t_4x^5y^4 - 6132\,t_2u_4t_3x^5y^4 - 124236\,u_2^2t_1t_2t_3x^5y^4 - 62118\,u_2^2t_1t_2u_4x^5y^4 - 41412\,u_2^2t_1u_3t_3x^5y^4 + 8808\,u_2t_1t_2u_5x^5y^4 + 44040\,u_2t_1t_2t_4x^5y^4 + 357459\,u_2t_1^3t_2u_3x^5y^4 + 9078\,u_2t_2u_3u_4x^5y^4 + 18156\,u_2t_2u_3t_3x^5y^4 + 2936\,u_2t_1u_3u_5x^5y^4 + 14680\,u_2t_1u_3t_4x^5y^4 + 23064\,u_2t_1u_4t_3x^5y^4 - 42434\,u_2t_1^2u_3u_4x^5y^4 - 254604\,u_2t_1^2t_2t_3x^5y^4 - 127302\,u_2t_1^2t_2u_4x^5y^4 - 84868\,u_2t_1^2u_3t_3x^5y^4 - 36585\,u_2t_1t_2u_3^2x^5y^4 - 97779\,u_2t_1t_2^2u_3x^5y^4 + 18156\,t_1t_2u_3u_4x^5y^4 + 36312\,t_1t_2u_3t_3x^5y^4 - 2044\,u_3u_4t_3x^5y^4 + 50400\,t_1^8x^5y^4 + 1303\,u_2^8x^5y^4 + 625\,t_4^2x^5y^4 + 25\,u_5^2x^5y^4 + 52\,u_3^4x^5y^4 - 126\,t_8x^5y^4 - 42\,u_9x^5y^4 + 7086\,u_3t_2^3x^5y^4 - 8796\,u_2^6t_2x^5y^4 + 163466\,u_2^5t_1^3x^5y^4 + 5663\,u_2^5t_3x^5y^4 + 492209\,u_2^3t_1^5x^5y^4 - 668\,u_2^4u_5x^5y^4 - 3340\,u_2^4t_4x^5y^4 - 207120\,t_1^6t_2x^5y^4 + 44886\,t_1^5u_4x^5y^4 + 88960\,t_1^5t_3x^5y^4 + 5766\,t_1^2u_4^2x^5y^4 - 3566\,t_1^2u_3^3x^5y^4 - 3444\,t_1^2t_6x^5y^4 + 406\,t_1u_8x^5y^4 - 96282\,t_1^2t_2^3x^5y^4 + 27402\,t_1^4u_3^2x^5y^4 + 23064\,t_1^2t_3^2x^5y^4 + 14680\,u_2t_1u_3t_4x^4y^5 + 18156\,u_2t_2u_3t_3x^4y^5 + 2936\,u_2t_1u_3u_5x^4y^5 + 44040\,u_2t_1t_2t_4x^4y^5 + 357459\,u_2t_1^3t_2u_3x^4y^5 + 9078\,u_2t_2u_3u_4x^4y^5 + 50400\,t_1^8x^4y^5 + 5346\,t_2^4x^4y^5 + 1303\,u_2^8x^4y^5 + 625\,t_4^2x^4y^5 + 25\,u_5^2x^4y^5 + 52\,u_3^4x^4y^5 - 126\,t_8x^4y^5 + 23064\,t_1^2u_4t_3x^4y^5 + 88290\,u_2^3t_1t_2u_3x^4y^5 + 264678\,u_2^2t_1^2t_2u_3x^4y^5 - 20706\,u_2^2t_1u_3u_4x^4y^5 - 4820\,t_1u_4t_4x^4y^5 - 1928\,t_1t_3u_5x^4y^5 - 9640\,t_1t_3t_4x^4y^5 - 8982\,t_1t_2t_5x^4y^5 + 54468\,t_1t_2^2t_3x^4y^5 + 27234\,t_1t_2^2u_4x^4y^5 - 8982\,t_1t_2u_6x^4y^5 - 2994\,t_1u_3t_5x^4y^5 + 3026\,t_1u_3^2u_4x^4y^5 + 6052\,t_1u_3^2t_3x^4y^5 - 2994\,t_1u_3u_6x^4y^5 - 100773\,u_2t_1t_2^3x^4y^5 - 704184\,u_2t_1^5t_2x^4y^5 + 122935\,u_2t_1^4u_4x^4y^5 + 245464\,u_2t_1^4t_3x^4y^5 + 544278\,u_2t_1^3t_2^2x^4y^5 - 482\,u_2u_4u_5x^4y^5 - 2410\,u_2u_4t_4x^4y^5 - 964\,u_2t_3u_5x^4y^5 - 4820\,u_2t_3t_4x^4y^5 - 4491\,u_2t_2t_5x^4y^5 + 27846\,u_2t_2^2t_3x^4y^5 + 13923\,u_2t_2^2u_4x^4y^5 - 4491\,u_2t_2u_6x^4y^5 - 1497\,u_2u_3t_5x^4y^5 + 1819\,u_2u_3^2u_4x^4y^5 + 3638\,u_2u_3^2t_3x^4y^5 - 1497\,u_2u_3u_6x^4y^5 - 14628\,u_2t_1^3u_5x^4y^5 - 73140\,u_2t_1^3t_4x^4y^5 + 18144\,u_2t_1^2u_6x^4y^5 - 228680\,u_2u_3t_1^5x^4y^5 + 18144\,u_2t_1^2t_5x^4y^5 - 492\,u_2t_1u_7x^4y^5 - 964\,t_1u_4u_5x^4y^5 + 65171\,u_2t_1^3u_3^2x^4y^5 - 69894\,u_2^5t_1t_2x^4y^5 - 17454\,u_2^5t_1u_3x^4y^5 - 268179\,u_2^4t_1^2t_2x^4y^5 - 77297\,u_2^4t_1^2u_3x^4y^5 + 19869\,u_2^4t_1u_4x^4y^5 + 39332\,u_2^4t_1t_3x^4y^5 + 12195\,u_2^4t_2u_3x^4y^5 - 198729\,u_2^3u_3t_1^3x^4y^5 - 3554\,u_2^3u_3u_4x^4y^5 + 18100\,u_2^3t_1u_3^2x^4y^5 - 621330\,u_2^3t_1^3t_2x^4y^5 + 64249\,u_2^3t_1^2u_4x^4y^5 + 128498\,u_2^3t_1^2t_3x^4y^5 + 145800\,u_2^3t_1t_2^2x^4y^5 - 3898\,u_2^3t_1u_5x^4y^5 - 19490\,u_2^3t_1t_4x^4y^5 - 23772\,u_2^3t_2t_3x^4y^5 - 11886\,u_2^3t_2u_4x^4y^5 - 7108\,u_2^3u_3t_3x^4y^5 - 10269\,u_2^2t_2u_3^2x^4y^5 - 24819\,u_2^2t_2^2u_3x^4y^5 + 2202\,u_2^2t_2u_5x^4y^5 + 11010\,u_2^2t_2t_4x^4y^5 + 734\,u_2^2u_3u_5x^4y^5 + 3670\,u_2^2u_3t_4x^4y^5 + 5766\,u_2^2u_4t_3x^4y^5 + 53185\,u_2^2t_1^2u_3^2x^4y^5 - 902469\,u_2^2t_1^4t_2x^4y^5 + 122732\,u_2^2t_1^3u_4x^4y^5 + 245464\,u_2^2t_1^3t_3x^4y^5 + 406089\,u_2^2t_1^2t_2^2x^4y^5 - 10730\,u_2^2t_1^2u_5x^4y^5 -$$

$$53650\,u_2^2t_1^2t_4x^4y^5 + 8766\,u_2^2t_1u_6x^4y^5 - 297901\,u_2^2u_3t_1^4x^4y^5 + 8766\,u_2^2t_1t_5x^4y^5 + 8808\,t_1^2t_2u_5x^4y^5 + 44040\,t_1^2t_2t_4x^4y^5 + 167406\,t_1^4t_2u_3x^4y^5 + 2936\,t_1^2u_3u_5x^4y^5 + 14680\,t_1^2u_3t_4x^4y^5 - 27404\,t_1^3u_3u_4x^4y^5 - 165648\,t_1^3t_2t_3x^4y^5 - 82824\,t_1^3t_2u_4x^4y^5 - 54808\,t_1^3u_3t_3x^4y^5 - 32094\,t_1^2t_2u_3^2x^4y^5 - 96282\,t_1^2t_2^2u_3x^4y^5 + 5969\,u_2t_1u_4^2x^4y^5 - 5063\,u_2t_1u_3^3x^4y^5 - 3444\,u_2t_1t_6x^4y^5 + 23470\,u_2t_1t_3^2x^4y^5 - 774\,t_2u_3u_5x^4y^5 - 3870\,t_2u_3t_4x^4y^5 - 6132\,t_2u_4t_3x^4y^5 - 124236\,u_2^2t_1t_2t_3x^4y^5 - 62118\,u_2^2t_1t_2u_4x^4y^5 - 41412\,u_2^2t_1u_3t_3x^4y^5 + 8808\,u_2t_1t_2u_5x^4y^5 - 3566\,t_1^2u_3^3x^4y^5 - 3444\,t_1^2t_6x^4y^5 + 23064\,t_1^2t_3^2x^4y^5 - 96282\,t_1^2t_2^3x^4y^5 + 27402\,t_1^4u_3^2x^4y^5 - 207120\,t_1^6t_2x^4y^5 + 23064\,u_2t_1u_4t_3x^4y^5 - 42434\,u_2t_1^2u_3u_4x^4y^5 - 254604\,u_2t_1^2t_2t_3x^4y^5 - 127302\,u_2t_1^2t_2u_4x^4y^5 - 84868\,u_2t_1^2u_3t_3x^4y^5 - 36585\,u_2t_1t_2u_3^2x^4y^5 - 97779\,u_2t_1t_2^2u_3x^4y^5 + 18156\,t_1t_2u_3u_4x^4y^5 + 36312\,t_1t_2u_3t_3x^4y^5 - 2044\,u_3u_4t_3x^4y^5 + 50400\,t_1^8x^4y^5 + 1303\,u_2^8x^4y^5 + 625\,t_4^2x^4y^5 + 25\,u_5^2x^4y^5 + 52\,u_3^4x^4y^5 - 126\,t_8x^4y^5 + 23064\,t_1^2u_4t_3x^4y^5 + 88290\,u_2^3t_1t_2u_3x^4y^5 + 264678\,u_2^2t_1^2t_2u_3x^4y^5 - 20706\,u_2^2t_1u_3u_4x^4y^5 - 4820\,t_1u_4t_4x^4y^5 - 1928\,t_1t_3u_5x^4y^5 - 9640\,t_1t_3t_4x^4y^5 - 8982\,t_1t_2t_5x^4y^5 + 54468\,t_1t_2^2t_3x^4y^5 + 27234\,t_1t_2^2u_4x^4y^5 - 8982\,t_1t_2u_6x^4y^5 - 2994\,t_1u_3t_5x^4y^5 + 3026\,t_1u_3^2u_4x^4y^5 + 6052\,t_1u_3^2t_3x^4y^5 - 2994\,t_1u_3u_6x^4y^5 - 100773\,u_2t_1t_2^3x^4y^5 - 704184\,u_2t_1^5t_2x^4y^5 + 122935\,u_2t_1^4u_4x^4y^5 + 245464\,u_2t_1^4t_3x^4y^5 + 544278\,u_2t_1^3t_2^2x^4y^5 - 482\,u_2u_4u_5x^4y^5 - 2410\,u_2u_4t_4x^4y^5 - 964\,u_2t_3u_5x^4y^5 - 4820\,u_2t_3t_4x^4y^5 - 4491\,u_2t_2t_5x^4y^5 + 27846\,u_2t_2^2t_3x^4y^5 + 13923\,u_2t_2^2u_4x^4y^5 - 4491\,u_2t_2u_6x^4y^5 - 1497\,u_2u_3t_5x^4y^5 + 1819\,u_2u_3^2u_4x^4y^5 + 3638\,u_2u_3^2t_3x^4y^5 - 1497\,u_2u_3u_6x^4y^5 - 14628\,u_2t_1^3u_5x^4y^5 - 73140\,u_2t_1^3t_4x^4y^5 + 18144\,u_2t_1^2u_6x^4y^5 - 228680\,u_2u_3t_1^5x^4y^5 + 18144\,u_2t_1^2t_5x^4y^5 - 492\,u_2t_1u_7x^4y^5 - 964\,t_1u_4u_5x^4y^5 + 65171\,u_2t_1^3u_3^2x^4y^5 - 69894\,u_2^5t_1t_2x^4y^5 - 17454\,u_2^5t_1u_3x^4y^5 - 268179\,u_2^4t_1^2t_2x^4y^5 - 77297\,u_2^4t_1^2u_3x^4y^5 + 19869\,u_2^4t_1u_4x^4y^5 + 39332\,u_2^4t_1t_3x^4y^5 + 12195\,u_2^4t_2u_3x^4y^5 - 198729\,u_2^3u_3t_1^3x^4y^5 - 3554\,u_2^3u_3u_4x^4y^5 + 18100\,u_2^3t_1u_3^2x^4y^5 - 621330\,u_2^3t_1^3t_2x^4y^5 + 64249\,u_2^3t_1^2u_4x^4y^5 + 128498\,u_2^3t_1^2t_3x^4y^5 + 145800\,u_2^3t_1t_2^2x^4y^5 - 3898\,u_2^3t_1u_5x^4y^5 - 19490\,u_2^3t_1t_4x^4y^5 - 23772\,u_2^3t_2t_3x^4y^5 - 11886\,u_2^3t_2u_4x^4y^5 - 7108\,u_2^3u_3t_3x^4y^5 - 10269\,u_2^2t_2u_3^2x^4y^5 - 24819\,u_2^2t_2^2u_3x^4y^5 + 2202\,u_2^2t_2u_5x^4y^5 + 11010\,u_2^2t_2t_4x^4y^5 + 734\,u_2^2u_3u_5x^4y^5 + 3670\,u_2^2u_3t_4x^4y^5 + 5766\,u_2^2u_4t_3x^4y^5 + 53185\,u_2^2t_1^2u_3^2x^4y^5 - 902469\,u_2^2t_1^4t_2x^4y^5 + 122732\,u_2^2t_1^3u_4x^4y^5 + 245464\,u_2^2t_1^3t_3x^4y^5 + 406089\,u_2^2t_1^2t_2^2x^4y^5 - 10730\,u_2^2t_1^2u_5x^4y^5 - 53650\,u_2^2t_1^2t_4x^4y^5 + 8766\,u_2^2t_1u_6x^4y^5 - 297901\,u_2^2u_3t_1^4x^4y^5 + 8766\,u_2^2t_1t_5x^4y^5 + 8808\,t_1^2t_2u_5x^4y^5 + 44040\,t_1^2t_2t_4x^4y^5 + 167406\,t_1^4t_2u_3x^4y^5 + 2936\,t_1^2u_3u_5x^4y^5 + 14680\,t_1^2u_3t_4x^4y^5 - 27404\,t_1^3u_3u_4x^4y^5 - 165648\,t_1^3t_2t_3x^4y^5 - 82824\,t_1^3t_2u_4x^4y^5 - 54808\,t_1^3u_3t_3x^4y^5 - 32094\,t_1^2t_2u_3^2x^4y^5 - 96282\,t_1^2t_2^2u_3x^4y^5 + 5969\,u_2t_1u_4^2x^4y^5 - 5063\,u_2t_1u_3^3x^4y^5 - 3444\,u_2t_1t_6x^4y^5 + 23470\,u_2t_1t_3^2x^4y^5 - 774\,t_2u_3u_5x^4y^5 - 3870\,t_2u_3t_4x^4y^5 - 6132\,t_2u_4t_3x^4y^5 - 124236\,u_2^2t_1t_2t_3x^4y^5 - 62118\,u_2^2t_1t_2u_4x^4y^5 - 41412\,u_2^2t_1u_3t_3x^4y^5 + 8808\,u_2t_1t_2u_5x^4y^5 - 3566\,t_1^2u_3^3x^4y^5 - 3444\,t_1^2t_6x^4y^5 + 23064\,t_1^2t_3^2x^4y^5 - 96282\,t_1^2t_2^3x^4y^5 + 27402\,t_1^4u_3^2x^4y^5 - 207120\,t_1^6t_2x^4y^5 + 23064\,u_2t_1u_4t_3x^4y^5 - 42434\,u_2t_1^2u_3u_4x^4y^5 - 254604\,u_2t_1^2t_2t_3x^4y^5 - 127302\,u_2t_1^2t_2u_4x^4y^5 - 84868\,u_2t_1^2u_3t_3x^4y^5 - 36585\,u_2t_1t_2u_3^2x^4y^5 - 97779\,u_2t_1t_2^2u_3x^4y^5 + 18156\,t_1t_2u_3u_4x^4y^5 + 36312\,t_1t_2u_3t_3x^4y^5 - 2044\,u_3u_4t_3x^4y^5 + 1543\,u_2^2u_4^2x^4y^5 + 2933\,u_2^5u_4x^4y^5 + 203\,u_2u_8x^4y^5 - 861\,u_2^2t_6x^4y^5 - 26316\,u_2^2t_2^3x^4y^5 + 23667\,u_2^4t_2^2x^4y^5 + 1767\,u_2^3t_5x^4y^5 - 42\,u_9x^4y^5 + 7086\,u_3t_2^3x^4y^5 - 8796\,u_2^6t_2x^4y^5 + 163466\,u_2^5t_1^3x^4y^5 + 5663\,u_2^5t_3x^4y^5 + 492209\,u_2^3t_1^5x^4y^5 - 668\,u_2^4u_5x^4y^5 - 3340\,u_2^4t_4x^4y^5 - 1754\,u_3u_2^6x^4y^5 + 2417\,u_2^4u_3^2x^4y^5 + 1767\,u_2^3u_6x^4y^5 + 469766\,u_2^2t_1^6x^4y^5 - 123\,u_2^2u_7x^4y^5 + 246080\,u_2t_1^7x^4y^5 + 812\,t_1t_7x^4y^5 + 406\,t_1u_8x^4y^5 + 5766\,t_1^2u_4^2x^4y^5 - 511\,u_3u_4^2x^4y^5 + 371\,u_3t_6x^4y^5 - 2044\,u_3t_3^2x^4y^5 - 129\,u_3^2u_5x^4y^5 - 645\,u_3^2t_4x^4y^5 + 53\,u_3u_7x^4y^5 + 44886\,t_1^5u_4x^4y^5 + 88960\,t_1^5t_3x^4y^5 + 255600\,t_1^4t_2^2x^4y^5 - 6832\,t_1^4u_5x^4y^5 - 34160\,t_1^4t_4x^4y^5 + 11688\,t_1^3u_6x^4y^5 - 65144\,u_3t_1^6x^4y^5 + 11688\,t_1^3t_5x^4y^5 - 492\,t_1^2u_7x^4y^5 + 5969\,u_2^2t_3^2x^4y^5 - 6132\,t_2t_3^2x^4y^5 + 3564\,t_2^2u_3^2x^4y^5 - 1161\,t_2^2u_5x^4y^5 - 5805\,t_2^2t_4x^4y^5 - 1533\,t_2u_4^2x^4y^5 + 792\,t_2u_3^3x^4y^5 + 1113\,t_2t_6x^4y^5 + 339009\,u_2^4t_1^4x^4y^5 + 11643\,u_2^7t_1x^4y^5 + 54123\,u_2^6t_1^2x^4y^5 + 612\,u_4u_6x^4y^5 + 1224\,t_3t_5x^4y^5 + 1224\,t_3u_6x^4y^5 + 612\,u_4t_5x^4y^5 + 250\,t_4u_5x^4y^5 + 159\,t_2u_7x^4y^5 - 1640\,u_2^2u_3^3x^4y^5 + 406\,u_2t_7x^4y^5 + 680\,u_2^8x^3y^6 + 400\,t_4^2x^3y^6 + 16\,u_5^2x^3y^6 + 2943\,t_2^4x^3y^6 - 84\,t_8x^3y^6 - 28\,u_9x^3y^6 - 1766\,t_1u_3t_5x^3y^6 + 1688\,t_1u_3^2u_4x^3y^6 + 3376\,t_1u_3^2t_3x^3y^6 - 1766\,t_1u_3u_6x^3y^6 - 50814\,t_1^2t_2^3x^3y^6 + 13758\,t_1^4u_3^2x^3y^6 + 27\,u_3^4x^3y^6 - 5559\,u_2^2t_2u_3^2x^3y^6 - 13145\,u_2^2t_2^2u_3x^3y^6 + 1236\,u_2^2t_2u_5x^3y^6 + 6180\,u_2^2t_2t_4x^3y^6 + 412\,u_2^2u_3u_5x^3y^6 + 3896\,u_3t_2^3x^3y^6 - 4551\,u_2^6t_2x^3y^6 + 79382\,u_2^5t_1^3x^3y^6 + 3046\,u_2^5t_3x^3y^6 + 234334\,u_2^3t_1^5x^3y^6 - 372\,u_2^4u_5x^3y^6 - 1860\,u_2^4t_4x^3y^6 - 845\,u_3u_2^6x^3y^6 + 1234\,u_2^4u_3^2x^3y^6 + 1008\,u_2^3u_6x^3y^6 + 222896\,u_2^2t_1^6x^3y^6 - 72\,u_2^2u_7x^3y^6 + 115808\,u_2t_1^7x^3y^6 + 504\,t_1t_7x^3y^6 + 252\,t_1u_8x^3y^6 + 3264\,t_1^2u_4^2x^3y^6 - 1882\,t_1^2u_3^3x^3y^6 - 2016\,t_1^2t_6x^3y^6 + 13056\,t_1^2t_3^2x^3y^6 + 23296\,t_1^8x^3y^6 + 44572\,u_2^3t_1t_2u_3x^3y^6 + 134184\,u_2^2t_1^2t_2u_3x^3y^6 - 11044\,u_2^2t_1u_3u_4x^3y^6 - 2890\,t_1u_4t_4x^3y^6 - 1156\,t_1t_3u_5x^3y^6 - 5780\,t_1t_3t_4x^3y^6 - 5298\,t_1t_2t_5x^3y^6 + 30384\,t_1t_2^2t_3x^3y^6 + 15192\,t_1t_2^2u_4x^3y^6 - 5298\,t_1t_2u_6x^3y^6 + 99\,t_2u_7x^3y^6 - 302\,u_3u_4^2x^3y^6 + 231\,u_3t_6x^3y^6 - 1208\,u_3t_3^2x^3y^6 - 76\,u_3^2u_5x^3y^6 - 380\,u_3^2t_4x^3y^6 + 33\,u_3u_7x^3y^6 - 100064\,t_1^6t_2x^3y^6 + 22876\,t_1^5u_4x^3y^6 + 45248\,t_1^5t_3x^3y^6 + 129120\,t_1^4t_2^2x^3y^6 - 3640\,t_1^4u_5x^3y^6 - 18200\,t_1^4t_4x^3y^6 + 6512\,t_1^3u_6x^3y^6 - 31184\,u_3t_1^6x^3y^6 + 6512\,t_1^3t_5x^3y^6 - 288\,t_1^2u_7x^3y^6 + 879\,u_2^2u_4^2x^3y^6 + 1586\,u_2^5u_4x^3y^6 + 126\,u_2u_8x^3y^6 - 504\,u_2^2t_6x^3y^6 - 14028\,u_2^2t_2^3x^3y^6 + 12372\,u_2^4t_2^2x^3y^6 + 1008\,u_2^3t_5x^3y^6 + 162623\,u_2^4t_1^4x^3y^6 + 5870\,u_2^7t_1x^3y^6 + 26671\,u_2^6t_1^2x^3y^6 + 388\,u_4u_6x^3y^6 + 776\,t_3t_5x^3y^6 + 776\,t_3u_6x^3y^6 - 3624\,t_2t_3^2x^3y^6 + 1962\,t_2^2u_3^2x^3y^6 - 684\,t_2^2u_5x^3y^6 - 3420\,t_2^2t_4x^3y^6 - 906\,t_2u_4^2x^3y^6 + 436\,t_2u_3^3x^3y^6 + 693\,t_2t_6x^3y^6 - 912\,u_2^2u_3^3x^3y^6 + 252\,u_2t_7x^3y^6 + 160\,t_4u_5x^3y^6 + 74598\,u_2^3t_1t_2^2x^3y^6 - 2109\,u_2^3t_1u_5x^3y^6 - 10545\,u_2^3t_1t_4x^3y^6 - 12856\,u_2^3t_2t_3x^3y^6 - 6428\,u_2^3t_2u_4x^3y^6 - 3768\,u_2^3u_3t_3x^3y^6 - 2280\,t_2u_3t_4x^3y^6 + 388\,u_4t_5x^3y^6 - 53463\,u_2t_1t_2^3x^3y^6 - 344368\,u_2t_1^5t_2x^3y^6 + 3264\,u_2^2u_4t_3x^3y^6 + 27442\,u_2^2t_1^2u_3^2x^3y^6 - 442410\,u_2^2t_1^4t_2x^3y^6 + 63088\,u_2^2t_1^3u_4x^3y^6 + 126176\,u_2^2t_1^3t_3x^3y^6 + 206354\,u_2^2t_1^2t_2^2x^3y^6 - 5749\,u_2^2t_1^2u_5x^3y^6 - 28745\,u_2^2t_1^2t_4x^3y^6 + 4884\,u_2^2t_1u_6x^3y^6 - 145842\,u_2^2u_3t_1^4x^3y^6 + 4884\,u_2^2t_1t_5x^3y^6 + 4944\,t_1^2t_2u_5x^3y^6 + 24720\,t_1^2t_2t_4x^3y^6 + 84314\,t_1^4t_2u_3x^3y^6 + 1648\,t_1^2u_3u_5x^3y^6 + 8240\,t_1^2u_3t_4x^3y^6 + 13056\,t_1^2u_4t_3x^3y^6 - 14596\,t_1^3u_3u_4x^3y^6 - 88352\,t_1^3t_2t_3x^3y^6 - 133370\,u_2^4t_1^2t_2x^3y^6 - 37686\,u_2^4t_1^2u_3x^3y^6 + 10460\,u_2^4t_1u_4x^3y^6 + 20668\,u_2^4t_1t_3x^3y^6 + 6146\,u_2^4t_2u_3x^3y^6 - 97116\,u_2^3u_3t_1^3x^3y^6 - 1884\,u_2^3u_3u_4x^3y^6 + 9282\,u_2^3t_1u_3^2x^3y^6 - 305380\,u_2^3t_1^3t_2x^3y^6 + 33176\,u_2^3t_1^2u_4x^3y^6 + 66352\,u_2^3t_1^2t_3x^3y^6 - 16938\,t_1^2t_2u_3^2x^3y^6 - 50814\,t_1^2t_2^2u_3x^3y^6 + 3390\,u_2t_1u_4^2x^3y^6 - 2765\,u_2t_1u_3^3x^3y^6 -$$

$$2016\,u_2t_1t_6x^3y^6 + 13308\,u_2t_1t_3{}^2x^3y^6 - 456\,t_2u_3u_5x^3y^6 - 3624\,t_2u_4t_3x^3y^6 - 66264\,u_2{}^2t_1t_2t_3x^3y^6 - 33132\,u_2{}^2t_1t_2u_4x^3y^6 - 22088\,u_2{}^2t_1u_3t_3x^3y^6 + 4944\,u_2t_1t_2u_5x^3y^6 + 24720\,u_2t_1t_2t_4x^3y^6 + 181405\,u_2t_1{}^3t_2u_3x^3y^6 + 5064\,u_2t_2u_3u_4x^3y^6 + 10128\,u_2t_2u_3t_3x^3y^6 + 1648\,u_2t_1u_3u_5x^3y^6 + 8240\,u_2t_1u_3t_4x^3y^6 + 13056\,u_2t_1u_4t_3x^3y^6 - 22692\,u_2t_1{}^2u_3u_4x^3y^6 - 136152\,u_2t_1{}^2t_2t_3x^3y^6 - 68076\,u_2t_1{}^2t_2u_4x^3y^6 - 45384\,u_2t_1{}^2u_3t_3x^3y^6 - 19587\,u_2t_1t_2u_3{}^2x^3y^6 - 51697\,u_2t_1t_2{}^2u_3x^3y^6 + 10128\,t_1t_2u_3u_4x^3y^6 + 20256\,t_1t_2u_3t_3x^3y^6 - 1208\,u_3u_4t_3x^3y^6 + 10156\,u_2t_1{}^2u_6x^3y^6 - 111404\,u_2u_3t_1{}^5x^3y^6 + 10156\,u_2t_1{}^2t_5x^3y^6 - 288\,u_2t_1u_7x^3y^6 - 578\,t_1u_4u_5x^3y^6 + 33343\,u_2t_1{}^3u_3{}^2x^3y^6 - 35328\,u_2{}^5t_1t_2x^3y^6 + 3390\,u_2{}^2t_3{}^2x^3y^6 - 8520\,u_2{}^5t_1u_3x^3y^6 + 2060\,u_2{}^2u_3t_4x^3y^6 - 44176\,t_1{}^3t_2u_4x^3y^6 - 29192\,t_1{}^3u_3t_3x^3y^6 + 276688\,u_2t_1{}^3t_2{}^2x^3y^6 - 289\,u_2u_4u_5x^3y^6 - 1445\,u_2u_4t_4x^3y^6 - 578\,u_2t_3u_5x^3y^6 - 2890\,u_2t_3t_4x^3y^6 - 2649\,u_2t_2t_5x^3y^6 + 15580\,u_2t_2{}^2t_3x^3y^6 + 7790\,u_2t_2{}^2u_4x^3y^6 - 2649\,u_2t_2u_6x^3y^6 - 883\,u_2u_3t_5x^3y^6 + 1038\,u_2u_3{}^2u_4x^3y^6 + 63214\,u_2t_1{}^4u_4x^3y^6 + 126176\,u_2t_1{}^4t_3x^3y^6 - 7858\,u_2t_1{}^3u_5x^3y^6 - 39290\,u_2t_1{}^3t_4x^3y^6 + 2076\,u_2u_3{}^2t_3x^3y^6 - 883\,u_2u_3u_6x^3y^6 + 5851\,u_2{}^6t_1{}^2x^2y^7 + 288\,t_3u_6x^2y^7 - 1152\,t_2t_3{}^2x^2y^7 + 144\,u_4u_6x^2y^7 + 288\,t_3t_5x^2y^7 - 216\,t_2{}^2u_5x^2y^7 - 1080\,t_2{}^2t_4x^2y^7 - 5094\,u_2t_1t_2u_3{}^2x^2y^7 + 540\,t_2{}^2u_3{}^2x^2y^7 + 33833\,u_2{}^4t_1{}^4x^2y^7 + 1352\,u_2{}^7t_1x^2y^7 - 4640\,t_1{}^4t_4x^2y^7 + 1848\,t_1{}^3u_6x^2y^7 - 6360\,u_3t_1{}^6x^2y^7 + 1848\,t_1{}^3t_5x^2y^7 - 92\,t_1{}^2u_7x^2y^7 + 982\,u_2{}^2t_3{}^2x^2y^7 + 257\,u_2{}^2u_4{}^2x^2y^7 + 420\,u_2{}^5u_4x^2y^7 + 46\,u_2u_8x^2y^7 - 161\,u_2{}^2t_6x^2y^7 - 3609\,u_2{}^2t_2{}^3x^2y^7 + 3063\,u_2{}^4t_2{}^2x^2y^7 + 303\,u_2{}^3t_5x^2y^7 + 2340\,u_2t_1u_3t_4x^2y^7 + 3744\,u_2t_1u_4t_3x^2y^7 - 5808\,u_2t_1{}^2u_3u_4x^2y^7 - 34848\,u_2t_1{}^2t_2t_3x^2y^7 - 17424\,u_2t_1{}^2t_2u_4x^2y^7 - 11616\,u_2t_1{}^2u_3t_3x^2y^7 + 6\,u_5{}^2x^2y^7 + 6\,u_3{}^4x^2y^7 - 36\,t_8x^2y^7 - 12\,u_9x^2y^7 - 288\,t_2u_4{}^2x^2y^7 + 120\,t_2u_3{}^3x^2y^7 + 252\,t_2t_6x^2y^7 - 259\,u_2{}^2u_3{}^3x^2y^7 + 92\,u_2t_7x^2y^7 + 60\,t_4u_5x^2y^7 + 36\,t_2u_7x^2y^7 - 96\,u_3u_4{}^2x^2y^7 + 84\,u_3t_6x^2y^7 - 384\,u_3t_3{}^2x^2y^7 - 24\,u_3{}^2u_5x^2y^7 - 120\,u_3{}^2t_4x^2y^7 + 12\,u_3u_7x^2y^7 + 144\,u_4t_5x^2y^7 + 1068\,u_3t_2{}^3x^2y^7 - 1101\,u_2{}^6t_2x^2y^7 + 16926\,u_2{}^5t_1{}^3x^2y^7 + 794\,u_2{}^5t_3x^2y^7 + 47990\,u_2{}^3t_1{}^5x^2y^7 - 105\,u_2{}^4u_5x^2y^7 - 525\,u_2{}^4t_4x^2y^7 - 165\,u_3u_2{}^6x^2y^7 + 287\,u_2{}^4u_3{}^2x^2y^7 + 303\,u_2{}^3u_6x^2y^7 + 45336\,u_2{}^2t_1{}^6x^2y^7 - 23\,u_2{}^2u_7x^2y^7 + 23136\,u_2t_1{}^7x^2y^7 + 184\,t_1t_7x^2y^7 + 92\,t_1u_8x^2y^7 + 936\,t_1{}^2u_4{}^2x^2y^7 - 472\,t_1{}^2u_3{}^3x^2y^7 - 644\,t_1{}^2t_6x^2y^7 + 4480\,t_1{}^8x^2y^7 + 810\,t_2{}^4x^2y^7 + 169\,u_2{}^8x^2y^7 + 150\,t_4{}^2x^2y^7 + 10134\,u_2{}^3t_1t_2u_3x^2y^7 + 30942\,u_2{}^2t_1{}^2t_2u_3x^2y^7 - 2808\,u_2{}^2t_1u_3u_4x^2y^7 - 940\,t_1u_4t_4x^2y^7 - 376\,t_1t_3u_5x^2y^7 - 1880\,t_1t_3t_4x^2y^7 - 1692\,t_1t_2t_5x^2y^7 + 8532\,t_1t_2{}^2t_3x^2y^7 + 4266\,t_1t_2{}^2u_4x^2y^7 - 1692\,t_1t_2u_6x^2y^7 - 564\,t_1u_3t_5x^2y^7 + 474\,t_1u_3{}^2u_4x^2y^7 + 948\,t_1u_3{}^2t_3x^2y^7 - 564\,t_1u_3u_6x^2y^7 + 3744\,t_1{}^2t_3{}^2x^2y^7 - 12744\,t_1{}^2t_2{}^3x^2y^7 + 3092\,t_1{}^4u_3{}^2x^2y^7 - 20928\,t_1{}^6t_2x^2y^7 + 5308\,t_1{}^5u_4x^2y^7 + 10432\,t_1{}^5t_3x^2y^7 + 29520\,t_1{}^4t_2{}^2x^2y^7 - 928\,t_1{}^4u_5x^2y^7 + 3836\,u_2t_1t_3{}^2x^2y^7 - 144\,t_2u_3u_5x^2y^7 - 720\,t_2u_3t_4x^2y^7 - 1152\,t_2u_4t_3x^2y^7 - 16848\,u_2{}^2t_1t_2t_3x^2y^7 - 8424\,u_2{}^2t_1t_2u_4x^2y^7 - 5616\,u_2{}^2t_1u_3t_3x^2y^7 + 1404\,u_2t_1t_2u_5x^2y^7 + 7020\,u_2t_1t_2t_4x^2y^7 + 41922\,u_2t_1{}^3t_2u_3x^2y^7 + 1422\,u_2t_2u_3u_4x^2y^7 + 2844\,u_2t_2u_3t_3x^2y^7 + 468\,u_2t_1u_3u_5x^2y^7 - 940\,u_2t_3t_4x^2y^7 - 846\,u_2t_2t_5x^2y^7 + 4410\,u_2t_2{}^2t_3x^2y^7 + 2205\,u_2t_2{}^2u_4x^2y^7 - 846\,u_2t_2u_6x^2y^7 - 282\,u_2u_3t_5x^2y^7 + 309\,u_2u_3{}^2u_4x^2y^7 - 13026\,u_2t_1t_2{}^2u_3x^2y^7 + 2844\,t_1t_2u_3u_4x^2y^7 + 5688\,t_1t_2u_3t_3x^2y^7 - 10220\,u_2t_1{}^3t_4x^2y^7 + 2916\,u_2t_1{}^2u_6x^2y^7 - 23700\,u_2u_3t_1{}^5x^2y^7 + 2916\,u_2t_1{}^2t_5x^2y^7 - 92\,u_2t_1u_7x^2y^7 - 188\,t_1u_4u_5x^2y^7 + 7864\,u_2t_1{}^3u_3{}^2x^2y^7 - 8136\,u_2{}^5t_1t_2x^2y^7 - 1788\,u_2{}^5t_1u_3x^2y^7 - 29736\,u_2{}^4t_1{}^2t_2x^2y^7 - 7968\,u_2{}^4t_1{}^2u_3x^2y^7 + 2612\,u_2{}^4t_1u_4x^2y^7 + 5132\,u_2{}^4t_1t_3x^2y^7 + 1377\,u_2{}^4t_2u_3x^2y^7 - 20787\,u_2{}^3u_3t_1{}^3x^2y^7 - 468\,u_2{}^3u_3u_4x^2y^7 + 2194\,u_2{}^3t_1u_3{}^2x^2y^7 - 66360\,u_2{}^3t_1{}^3t_2x^2y^7 + 7924\,u_2{}^3t_1{}^2u_4x^2y^7 + 15848\,u_2{}^3t_1{}^2t_3x^2y^7 + 17586\,u_2{}^3t_1t_2{}^2x^2y^7 - 13590\,u_2t_1t_2{}^3x^2y^7 - 384\,u_3u_4t_3x^2y^7 - 74016\,u_2t_1{}^5t_2x^2y^7 + 14958\,u_2t_1{}^4u_4x^2y^7 + 29824\,u_2t_1{}^4t_3x^2y^7 + 64230\,u_2t_1{}^3t_2{}^2x^2y^7 - 94\,u_2u_4u_5x^2y^7 - 470\,u_2u_4t_4x^2y^7 - 188\,u_2t_3u_5x^2y^7 + 117\,u_2{}^2u_3u_5x^2y^7 + 585\,u_2{}^2u_3t_4x^2y^7 + 936\,u_2{}^2u_4t_3x^2y^7 + 6615\,u_2{}^2t_1{}^2u_3{}^2x^2y^7 - 95616\,u_2{}^2t_1{}^4t_2x^2y^7 + 14912\,u_2{}^2t_1{}^3u_4x^2y^7 + 29824\,u_2{}^2t_1{}^3t_3x^2y^7 + 618\,u_2u_3{}^2t_3x^2y^7 - 282\,u_2u_3u_6x^2y^7 - 2044\,u_2t_1{}^3u_5x^2y^7 + 1386\,u_2{}^2t_1u_6x^2y^7 - 31410\,u_2{}^2u_3t_1{}^4x^2y^7 + 1386\,u_2{}^2t_1t_5x^2y^7 + 1404\,t_1{}^2t_2u_5x^2y^7 + 7020\,t_1{}^2t_2t_4x^2y^7 + 19116\,t_1{}^4t_2u_3x^2y^7 + 468\,t_1{}^2u_3u_5x^2y^7 + 2340\,t_1{}^2u_3t_4x^2y^7 + 3744\,t_1{}^2u_4t_3x^2y^7 - 3696\,t_1{}^3u_3u_4x^2y^7 - 22464\,t_1{}^3t_2t_3x^2y^7 - 11232\,t_1{}^3t_2u_4x^2y^7 - 7392\,t_1{}^3u_3t_3x^2y^7 - 4248\,t_1{}^2t_2u_3{}^2x^2y^7 - 12744\,t_1{}^2t_2{}^2u_3x^2y^7 + 982\,u_2t_1u_4{}^2x^2y^7 - 754\,u_2t_1u_3{}^3x^2y^7 - 644\,u_2t_1t_6x^2y^7 - 2790\,u_2{}^3t_1t_4x^2y^7 - 3384\,u_2{}^3t_2t_3x^2y^7 - 1692\,u_2{}^3t_2u_4x^2y^7 - 558\,u_2{}^3t_1u_5x^2y^7 - 1485\,u_2{}^2t_2u_3{}^2x^2y^7 - 3327\,u_2{}^2t_2{}^2u_3x^2y^7 + 351\,u_2{}^2t_2u_5x^2y^7 -$$

$$936\,u_2{}^3u_3t_3x^2y^7 - 1486\,u_2{}^2t_1{}^2u_5x^2y^7 - 7430\,u_2{}^2t_1{}^2t_4x^2y^7 + 1755\,u_2{}^2t_2t_4x^2y^7 + 47871\,u_2{}^2t_1{}^2t_2{}^2x^2y^7 - 21\,u_2{}^2t_6xy^8 + 40\,u_2{}^5u_4xy^8 + 8\,u_2u_8xy^8 - 15\,u_3{}^2t_4xy^8 - 48\,u_3t_3{}^2xy^8 - 3\,u_3{}^2u_5xy^8 - 90\,t_2u_3t_4xy^8 + 2\,u_3u_7xy^8 + 24\,u_4t_5xy^8 + 261\,u_2{}^4t_2{}^2xy^8 + 96\,t_1{}^2u_4{}^2xy^8 - 40\,t_1{}^2u_3{}^3xy^8 - 84\,t_1{}^2t_6xy^8 + 384\,t_1{}^2t_3{}^2xy^8 - 1080\,t_1{}^2t_2{}^3xy^8 + 216\,t_1{}^4u_3{}^2xy^8 - 1344\,t_1{}^6t_2xy^8 + 400\,t_1{}^5u_4xy^8 + 768\,t_1{}^5t_3xy^8 + 2160\,t_1{}^4t_2{}^2xy^8 - 80\,t_1{}^4u_5xy^8 - 400\,t_1{}^4t_4xy^8 + 192\,t_1{}^3u_6xy^8 - 384\,u_3t_1{}^6xy^8 + 192\,t_1{}^3t_5xy^8 - 12\,t_1{}^2u_7xy^8 + 104\,u_2{}^2t_3{}^2xy^8 + 28\,u_2{}^2u_4{}^2xy^8 - 18\,t_2u_3u_5xy^8 + 256\,t_1{}^8xy^8 + 81\,t_2{}^4xy^8 + 15\,u_2{}^8xy^8 + 25\,t_4{}^2xy^8 + u_5{}^2xy^8 - 9\,t_8xy^8 - 3\,u_9xy^8 + 105\,u_3t_2{}^3xy^8 - 90\,u_2{}^6t_2xy^8 + 1144\,u_2{}^5t_1{}^3xy^8 + 72\,u_2{}^5t_3xy^8 + 3048\,u_2{}^3t_1{}^5xy^8 - 11\,u_2{}^4u_5xy^8 - 55\,u_2{}^4t_4xy^8 - 6\,u_3u_2{}^6xy^8 + 21\,u_2{}^4u_3{}^2xy^8 + 36\,u_2{}^3u_6xy^8 + 2848\,u_2{}^2t_1{}^6xy^8 - 3\,u_2{}^2u_7xy^8 + 1408\,u_2t_1{}^7xy^8 + 32\,t_1t_7xy^8 + 16\,t_1u_8xy^8 + 720\,u_2{}^3t_1t_2u_3xy^8 + 2304\,u_2{}^2t_1{}^2t_2u_3xy^8 - 240\,u_2{}^2t_1u_3u_4xy^8 - 120\,t_1u_4t_4xy^8 - 48\,t_1t_3u_5xy^8 - 240\,t_1t_3t_4xy^8 - 216\,t_1t_2t_5xy^8 + 864\,t_1t_2{}^2t_3xy^8 + 432\,t_1t_2{}^2u_4xy^8 - 216\,t_1t_2u_6xy^8 - 72\,t_1u_3t_5xy^8 + 48\,t_1u_3{}^2u_4xy^8 + 96\,t_1u_3{}^2t_3xy^8 - 72\,t_1u_3u_6xy^8 - 1188\,u_2t_1t_2{}^3xy^8 - 4992\,u_2t_1{}^5t_2xy^8 + 1160\,u_2t_1{}^4u_4xy^8 + 2304\,u_2t_1{}^4t_3xy^8 + 4848\,u_2t_1{}^3t_2{}^2xy^8 - 12\,u_2u_4u_5xy^8 - 60\,u_2u_4t_4xy^8 - 24\,u_2t_3u_5xy^8 - 120\,u_2t_3t_4xy^8 - 108\,u_2t_2t_5xy^8 + 456\,u_2t_2{}^2t_3xy^8 + 228\,u_2t_2{}^2u_4xy^8 - 108\,u_2t_2u_6xy^8 - 36\,u_2u_3t_5xy^8 + 36\,u_2u_3{}^2u_4xy^8 + 72\,u_2u_3{}^2t_3xy^8 - 36\,u_2u_3u_6xy^8 - 184\,u_2t_1{}^3u_5xy^8 - 920\,u_2t_1{}^3t_4xy^8 + 312\,u_2t_1{}^2u_6xy^8 - 1560\,u_2u_3t_1{}^5xy^8 + 312\,u_2t_1{}^2t_5xy^8 - 12\,u_2t_1u_7xy^8 - 24\,t_1u_4u_5xy^8 + 612\,u_2t_1{}^3u_3{}^2xy^8 - 612\,u_2{}^5t_1t_2xy^8 - 108\,u_2{}^5t_1u_3xy^8 - 2136\,u_2{}^4t_1{}^2t_2xy^8 - 504\,u_2{}^4t_1{}^2u_3xy^8 + 224\,u_2{}^4t_1u_4xy^8 + 432\,u_2{}^4t_1t_3xy^8 + 90\,u_2{}^4t_2u_3xy^8 - 1380\,u_2{}^3u_3t_1{}^3xy^8 - 36\,u_2{}^3u_3u_4xy^8 + 168\,u_2{}^3t_1u_3{}^2xy^8 - 4560\,u_2{}^3t_1{}^3t_2xy^8 + 624\,u_2{}^3t_1{}^2u_4xy^8 + 1248\,u_2{}^3t_1{}^2t_3xy^8 + 1368\,u_2{}^3t_1t_2{}^2xy^8 - 52\,u_2{}^3t_1u_5xy^8 - 260\,u_2{}^3t_1t_4xy^8 - 312\,u_2{}^3t_2t_3xy^8 - 156\,u_2{}^3t_2u_4xy^8 - 72\,u_2{}^3u_3t_3xy^8 - 144\,u_2{}^2t_2u_3{}^2xy^8 - 288\,u_2{}^2t_2{}^2u_3xy^8 + 36\,u_2{}^2t_2u_5xy^8 + 180\,u_2{}^2t_2t_4xy^8 + 12\,u_2{}^2u_3u_5xy^8 + 60\,u_2{}^2u_3t_4xy^8 + 96\,u_2{}^2u_4t_3xy^8 + 540\,u_2{}^2t_1{}^2u_3{}^2xy^8 - 6516\,u_2{}^2t_1{}^4t_2xy^8 + 1152\,u_2{}^2t_1{}^3u_4xy^8 + 2304\,u_2{}^2t_1{}^3t_3xy^8 + 3612\,u_2{}^2t_1{}^2t_2{}^2xy^8 - 132\,u_2{}^2t_1{}^2u_5xy^8 - 660\,u_2{}^2t_1{}^2t_4xy^8 + 144\,u_2{}^2t_1u_6xy^8 - 2124\,u_2{}^2u_3t_1{}^4xy^8 + 144\,u_2{}^2t_1t_5xy^8 + 144\,t_1{}^2t_2u_5xy^8 + 720\,t_1{}^2t_2t_4xy^8 + 1368\,t_1{}^4t_2u_3xy^8 + 48\,t_1{}^2u_3u_5xy^8 + 240\,t_1{}^2u_3t_4xy^8 + 384\,t_1{}^2u_4t_3xy^8 - 312\,t_1{}^3u_3u_4xy^8 - 1920\,t_1{}^3t_2t_3xy^8 - 960\,t_1{}^3t_2u_4xy^8 - 624\,t_1{}^3u_3t_3xy^8 - 360\,t_1{}^2t_2u_3{}^2xy^8 - 1080\,t_1{}^2t_2{}^2u_3xy^8 + 104\,u_2t_1u_4{}^2xy^8 - 76\,u_2t_1u_3{}^3xy^8 - 84\,u_2t_1t_6xy^8 + 400\,u_2t_1t_3{}^2xy^8 - 324\,u_2{}^2t_2{}^3xy^8 + 36\,u_2{}^3t_5xy^8 + 2204\,u_2{}^4t_1{}^4xy^8 + 104\,u_2{}^7t_1xy^8 + 412\,u_2{}^6t_1{}^2xy^8 + 24\,u_4u_6xy^8 + 48\,t_3t_5xy^8 + 48\,t_3u_6xy^8 - 144\,t_2t_3{}^2xy^8 + 54\,t_2{}^2u_3{}^2xy^8 - 27\,t_2{}^2u_5xy^8 - 135\,t_2{}^2t_4xy^8 - 36\,t_2u_4{}^2xy^8 + 12\,t_2u_3{}^3xy^8 + 42\,t_2t_6xy^8 - 28\,u_2{}^2u_3{}^3xy^8 + 16\,u_2t_7xy^8 + 10\,t_4u_5xy^8 + 6\,t_2u_7xy^8 - 12\,u_3u_4{}^2xy^8 + 14\,u_3t_6xy^8 + 3132\,u_2t_1{}^3t_2u_3xy^8 + 144\,u_2t_2u_3u_4xy^8 + 288\,u_2t_2u_3t_3xy^8 + 48\,u_2t_1u_3u_5xy^8 + 240\,u_2t_1u_3t_4xy^8 + 384\,u_2t_1u_4t_3xy^8 - 504\,u_2t_1{}^2u_3u_4xy^8 - 144\,t_2u_4t_3xy^8 - 1440\,u_2{}^2t_1t_2t_3xy^8 - 720\,u_2{}^2t_1t_2u_4xy^8 - 480\,u_2{}^2t_1u_3t_3xy^8 + 144\,u_2t_1t_2u_5xy^8 + 720\,u_2t_1t_2t_4xy^8 + 576\,t_1t_2u_3t_3xy^8 - 48\,u_3u_4t_3xy^8 - 468\,u_2t_1t_2u_3{}^2xy^8 - 3024\,u_2t_1{}^2t_2t_3xy^8 - 1512\,u_2t_1{}^2t_2u_4xy^8 - 1008\,u_2t_1{}^2u_3t_3xy^8 - 1116\,u_2t_1t_2{}^2u_3xy^8 + 288\,t_1t_2u_3u_4xy^8$$

Some values of the n-series for $F_{U,T}(x,y)$ are

$$[2]_{UT}(x) = (2\,x + (-u_2 - 2\,t_1)x^2 + (2\,u_2{}^2 + 8\,u_2t_1 + 8\,t_1{}^2 - 6\,t_2 - 2\,u_3)x^3 + (-61\,u_2t_1{}^2 - 14\,t_3 + 24\,u_2t_2 + 8\,u_2u_3 + 48\,t_1t_2 + 16\,t_1u_3 - 27\,u_2{}^2t_1 - 36\,t_1{}^3 - 7\,u_4 - 8\,u_2{}^3)x^4 + (-336\,u_2t_1t_2 - 112\,u_2t_1u_3 + 8\,u_3{}^2 + 118\,u_2{}^3t_1 + 294\,u_2{}^2t_1{}^2 - 84\,u_2{}^2t_2 - 28\,u_2{}^2u_3 + 412\,u_2t_1{}^3 + 30\,u_2u_4 + 60\,u_2t_3 - 336\,t_1{}^2t_2 - 112\,t_1{}^2u_3 + 60\,t_1u_4 + 120\,t_1t_3 + 72\,t_2{}^2 + 48\,t_2u_3 + 176\,t_1{}^4 - 6\,u_5 - 30\,t_4 + 26\,u_2{}^4)x^5 + (-84\,u_2{}^5 - 553\,u_2t_2{}^2 + 734\,u_3t_1{}^3 - 62\,t_5 + 1698\,u_2{}^2t_1t_2 + 566\,u_2{}^2t_1u_3 + 3576\,u_2t_1{}^2t_2 + 1192\,u_2t_1{}^2u_3 - 444\,u_2t_1u_4 - 888\,u_2t_1t_3 - 348\,u_2t_2u_3 - 696\,t_1t_2u_3 + 60\,u_3u_4 - 2724\,u_2t_1{}^4 - 507\,u_2{}^4t_1 - 1473\,u_2{}^3t_1{}^2 + 373\,u_2{}^3t_2 - 2724\,u_2{}^2t_1{}^3 - 111\,u_2{}^2u_4 - 222\,u_2{}^2t_3 - 912\,t_1{}^5 + 28\,u_2u_5 + 140\,u_2t_4 - 116\,t_1u_3{}^2 + 2264\,t_1{}^3t_2 - 444\,t_1{}^2u_4 - 888\,t_1{}^2t_3 - 1044\,t_1t_2{}^2 + 56\,t_1u_5 + 280\,t_1t_4 + 360\,t_2t_3 + 180\,t_2u_4 + 120\,u_3t_3 + 83\,u_3u_2{}^3 - 89\,u_2u_3{}^2 - 62\,u_6)x^6 + (112\,u_4{}^2 + 300\,u_2{}^6 - 40\,u_3{}^3 - 126\,t_6 + 448\,t_3{}^2 - 360\,t_2u_3{}^2 - 1080\,t_2{}^2u_3 + 168\,t_2u_5 + 840\,t_2t_4 + 56\,u_3u_5 + 280\,u_3t_4 - 1080\,t_2{}^3 + 448\,u_4t_3 + 1208\,t_1{}^2u_3{}^2 - 15056\,t_1{}^4t_2 + 3120\,t_1{}^3u_4 + 6240\,t_1{}^3t_3 + 10872\,t_1{}^2t_2{}^2 - 440\,t_1{}^2u_5 - 2200\,t_1{}^2t_4 + 632\,t_1u_6 + 7248\,t_1{}^2t_2u_3 + 2876\,u_2{}^2t_2{}^2 + 316\,u_2t_5 + 23272\,u_2{}^2t_1{}^4 + 2094\,u_2{}^5t_1 + 7462\,u_2{}^4t_1{}^2 - 1628\,u_2{}^4t_2 + 16220\,u_2{}^3t_1{}^3 + 502\,u_2{}^3u_4 + 1004\,u_2{}^3t_3 + 17904\,u_2t_1{}^5 - 110\,u_2{}^2u_5 - 550\,u_2{}^2t_4 - 8902\,u_2{}^3t_1t_2 - 2546\,u_2{}^3t_1u_3 - 23958\,u_2{}^2t_1{}^2t_2 - 7986\,u_2{}^2t_1{}^2u_3 + 2340\,u_2{}^2t_1u_4 + 4680\,u_2{}^2t_1t_3 + 1812\,u_2{}^2t_2u_3 -$$

$$10848\,u_2u_3{t_1}^3 - 458\,u_2u_3u_4 + 1524\,u_2t_1{u_3}^2 - 32860\,u_2{t_1}^3t_2 + 4904\,u_2{t_1}^2u_4 + 9808\,u_2{t_1}^2t_3 + 11188\,u_2{t_1}^2t_2^2 - 440\,u_2t_1u_5 - 2200\,u_2t_1t_4 - 2748\,u_2t_2t_3 - 1374\,u_2t_2u_4 - 916\,u_2u_3t_3 - 916\,t_1u_3u_4 - 5496\,t_1t_2t_3 - 2748\,t_1t_2u_4 - 1832\,t_1u_3t_3 - 332\,u_3{u_2}^4 + 460\,{u_2}^2{u_3}^2 + 316\,u_2u_6 - 4808\,u_3{t_1}^4 + 632\,t_1t_5 + 4928\,{t_1}^6 + 7248\,u_2t_1t_2u_3 - 18\,u_7)x^7 + (-254\,t_7 - 3713\,u_2{t_3}^2 - 2712\,t_1t_2u_5 - 13560\,t_1t_2t_4 - 960\,u_2{u_4}^2 - 2299\,{u_2}^4u_4 - 127\,u_8 - 1140\,{u_2}^7 - 49368\,{u_2}^2t_1t_2u_3 - 101568\,u_2{t_1}^2t_2u_3 + 9916\,u_2t_1u_3u_4 + 59496\,u_2t_1t_2t_3 + 29748\,u_2t_1t_2u_4 + 19832\,u_2t_1u_3t_3 + 744\,u_2{u_3}^3 + 700\,u_2t_6 + 12504\,u_2{t_2}^3 - 15125\,{u_2}^3{t_2}^2 - 1318\,{u_2}^2t_5 - 163998\,{u_2}^3{t_1}^4 - 8809\,{u_2}^6t_1 - 36332\,{u_2}^5{t_1}^2 + 6833\,{u_2}^5t_2 - 94024\,{u_2}^4{t_1}^3 - 4471\,{u_2}^4t_3 - 188869\,{u_2}^2{t_1}^5 + 508\,{u_2}^3u_5 + 2540\,{u_2}^3t_4 + 1399\,u_3{u_2}^5 - 1845\,{u_2}^3{u_3}^2 - 1318\,{u_2}^2u_6 - 117576\,u_2{t_1}^6 + 100\,u_2u_7 - 1793\,t_1{u_4}^2 + 856\,t_1{u_3}^3 + 1400\,t_1t_6 - 7172\,t_1{t_3}^2 + 23112\,t_1{t_2}^3 - 10760\,{t_1}^3{u_3}^2 + 99664\,{t_1}^5t_2 - 21551\,{t_1}^4u_4 - 42848\,{t_1}^4t_3 - 98736\,{t_1}^3{t_2}^2 + 46019\,{u_2}^4t_1t_2 + 11825\,{u_2}^4t_1u_3 + 146891\,{u_2}^3{t_1}^2t_2 + 45449\,{u_2}^3{t_1}^2u_3 - 12505\,{u_2}^3t_1u_4 - 25010\,{u_2}^3t_1t_3 - 8380\,{u_2}^3t_2u_3 + 92530\,{u_2}^2u_3{t_1}^3 + 2479\,{u_2}^2u_3u_4 - 10864\,{u_2}^2t_1{u_3}^2 + 278908\,{u_2}^2{t_1}^3t_2 - 33929\,{u_2}^2{t_1}^2u_4 - 67858\,{u_2}^2{t_1}^2t_3 - 76688\,{u_2}^2t_1{t_2}^2 + 2424\,{u_2}^2t_1u_5 + 12120\,{u_2}^2t_1t_4 + 14874\,{u_2}^2t_2t_3 + 7437\,{u_2}^2t_2u_4 + 4958\,{u_2}^2u_3t_3 - 65192\,{t_1}^3t_2u_3 + 208\,u_4u_5 + 1040\,u_4t_4 + 416\,t_3u_5 + 2080\,t_3t_4 - 2832\,t_2u_3u_4 - 5664\,t_2u_3t_3 + 1896\,t_2t_5 - 8496\,t_2{t_3}^2 - 4248\,t_2{t_2}^2u_4 + 1896\,t_2u_6 + 632\,u_3t_5 - 472\,{u_3}^2u_4 - 944\,{u_3}^2t_3 + 632\,u_3u_6 - 904\,t_1u_3u_5 - 4520\,t_1u_3t_4 - 7172\,t_1u_4t_3 - 27472\,{t_1}^7 + 3232\,{t_1}^3u_5 + 16160\,{t_1}^3t_4 - 5272\,{t_1}^2u_6 + 31464\,u_3{t_1}^5 - 5272\,{t_1}^2t_5 + 200\,t_1u_7 + 9916\,{t_1}^2u_3u_4 + 59496\,{t_1}^2t_2t_3 + 29748\,{t_1}^2t_2u_4 + 19832\,{t_1}^2u_3t_3 + 4800\,u_2t_2{u_3}^2 + 11872\,u_2{t_2}^2u_3 - 1356\,u_2t_2u_5 - 6780\,u_2t_2t_4 - 452\,u_2u_3u_5 - 2260\,u_2u_3t_4 - 3586\,u_2u_4t_3 - 19564\,u_2{t_1}^2{u_3}^2 + 278908\,u_2{t_1}^4t_2 - 46434\,u_2{t_1}^3u_4 - 92868\,u_2{t_1}^3t_3 - 154988\,u_2{t_1}^2t_2^2 + 5056\,u_2{t_1}^2u_5 + 25280\,u_2{t_1}^2t_4 - 5272\,u_2t_1u_6 + 91212\,u_2u_3{t_1}^4 - 5272\,u_2t_1t_5 + 7704\,t_1t_2{u_3}^2 + 23112\,t_1{t_2}^2u_3)x^8 + (24310\,u_3{t_2}^3 + 287432\,{u_2}^3t_1t_2u_3 + 864216\,{u_2}^2{t_1}^2t_2u_3 - 69596\,{u_2}^2t_1u_3u_4 - 17540\,t_1u_4t_4 - 7016\,t_1t_3u_5 - 35080\,t_1t_3t_4 - 32376\,t_1t_2t_5 + 188496\,t_1{t_2}^2t_3 + 94248\,t_1{t_2}^2u_4 - 32376\,t_1t_2u_6 - 10792\,t_1u_3t_5 + 10472\,t_1{u_3}^2u_4 + 20944\,t_1{u_3}^2t_3 - 10792\,t_1u_3u_6 + 156864\,{t_1}^8 - 29076\,{u_2}^6t_2 + 521836\,{u_2}^5{t_1}^3 + 19150\,{u_2}^5t_3 + 1555162\,{u_2}^3{t_1}^5 - 2312\,{u_2}^4u_5 - 11560\,{u_2}^4t_4 - 5540\,u_3{u_2}^6 + 7918\,{u_2}^4{u_3}^2 + 6228\,{u_2}^3u_6 + 1481692\,{u_2}^2{t_1}^6 - 442\,{u_2}^2u_7 + 772864\,u_2{t_1}^7 + 3064\,t_1t_7 + 1532\,t_1u_8 + 20124\,{t_1}^2{u_4}^2 - 11920\,{t_1}^2{u_3}^3 - 12376\,{t_1}^2t_6 + 80496\,{t_1}^2{t_3}^2 - 321840\,{t_1}^2{t_2}^3 + 88936\,{t_1}^4{u_3}^2 - 658912\,{t_1}^6t_2 + 146940\,{t_1}^5u_4 + 290816\,{t_1}^5t_3 + 832800\,{t_1}^4{t_2}^2 - 22960\,{t_1}^4u_5 - 114800\,{t_1}^4t_4 + 40480\,{t_1}^3u_6 - 206144\,u_3{t_1}^6 + 40480\,{t_1}^3t_5 - 1768\,{t_1}^2u_7 - 338028\,u_2{t_1}^2{t_2}^3 - 2255120\,u_2{t_1}^5t_2 + 404534\,u_2{t_1}^4u_4 + 807536\,u_2{t_1}^4t_3 + 1780088\,u_2{t_1}^3{t_2}^2 - 1754\,u_2u_4u_5 - 8770\,u_2u_4t_4 - 3508\,u_2t_3u_5 - 17540\,u_2t_3t_4 - 16188\,u_2t_2t_5 + 96584\,u_2t_2{t_3}^2 + 48292\,u_2{t_2}^2u_4 - 16188\,u_2t_2u_6 - 5396\,u_2u_3t_5 + 6404\,u_2{u_3}^2u_4 + 12808\,u_2{u_3}^2t_3 - 5396\,u_2u_3u_6 - 49428\,u_2{t_1}^3u_5 - 247140\,u_2{t_1}^3t_4 + 63056\,u_2{t_1}^2u_6 - 730688\,u_2u_3{t_1}^5 + 63056\,u_2{t_1}^2t_5 - 1768\,u_2t_1u_7 - 3508\,t_1u_4u_5 + 213980\,u_2{t_1}^3{u_3}^2 - 227940\,{u_2}^5t_1t_2 - 55740\,{u_2}^5t_1u_3 - 866842\,{u_2}^4{t_1}^2t_2 - 246910\,{u_2}^4{t_1}^2u_3 + 66330\,{u_2}^4t_1u_4 + 131128\,{u_2}^4t_1t_3 + 39616\,{u_2}^4t_2u_3 - 636024\,{u_2}^3u_3{t_1}^3 - 11884\,{u_2}^3u_3u_4 + 59488\,{u_2}^3t_1{u_3}^2 - 1995260\,{u_2}^3{t_1}^3t_2 + 211946\,{u_2}^3{t_1}^2u_4 + 423892\,{u_2}^3{t_1}^2t_3 + 478704\,{u_2}^3t_1t_2^2 - 13234\,{u_2}^3t_1u_5 - 66170\,{u_2}^3t_1t_4 - 80648\,{u_2}^3t_2t_3 - 40324\,{u_2}^3t_2u_4 - 23768\,{u_2}^3u_3t_3 - 34914\,{u_2}^2t_2{u_3}^2 - 83158\,{u_2}^2{t_2}^2u_3 + 7650\,{u_2}^2t_2u_5 + 38250\,{u_2}^2t_2t_4 + 2550\,{u_2}^2u_3u_5 + 12750\,{u_2}^2u_3t_4 + 20124\,{u_2}^2u_4t_3 + 175564\,{u_2}^2{t_1}^2{u_3}^2 - 2894022\,{u_2}^2{t_1}^4t_2 + 403768\,{u_2}^2{t_1}^3u_4 + 807536\,{u_2}^2{t_1}^3t_3 + 1327852\,{u_2}^2{t_1}^2t_2^2 - 36194\,{u_2}^2{t_1}^2u_5 - 180970\,{u_2}^2{t_1}^2t_4 + 30360\,{u_2}^2t_1u_6 - 954554\,{u_2}^2u_3{t_1}^4 + 30360\,{u_2}^2t_1t_5 + 30600\,{t_1}^2t_2u_5 + 153000\,{t_1}^2t_2t_4 + 544408\,{t_1}^4t_2u_3 + 10200\,{t_1}^2u_3u_5 + 51000\,{t_1}^2u_3t_4 + 80496\,{t_1}^2u_4t_3 - 92016\,{t_1}^3u_3u_4 - 556768\,{t_1}^3t_2t_3 - 278384\,{t_1}^3t_2u_4 - 184032\,{t_1}^3u_3t_3 - 107280\,{t_1}^2t_2{u_3}^2 - 321840\,{t_1}^2{t_2}^2u_3 + 20890\,u_2t_1{u_4}^2 - 17316\,u_2t_1{u_3}^3 - 12376\,u_2t_1t_6 + 82028\,u_2t_1{t_3}^2 + 20890\,{u_2}^2{t_3}^2 + 5414\,{u_2}^2{u_4}^2 + 9958\,{u_2}^5u_4 + 766\,u_2u_8 - 3094\,{u_2}^2t_6 - 88554\,{u_2}^2{t_2}^3 + 78726\,{u_2}^4{t_2}^2 + 6228\,{u_2}^3t_5 + 1075338\,{u_2}^4{t_1}^4 + 37938\,{u_2}^7t_1 + 174114\,{u_2}^6{t_1}^2 + 2336\,u_4u_6 + 4672\,t_3t_5 + 4672\,t_3u_6 - 22104\,t_2{t_3}^2 + 12240\,{t_2}^2{u_3}^2 - 4176\,{t_2}^2u_5 - 20880\,{t_2}^2t_4 + 18360\,{t_2}^4 - 5526\,t_2{u_4}^2 + 2720\,t_2{u_3}^3 + 4200\,t_2t_6 - 2784\,t_2u_3u_5 - 13920\,t_2u_3t_4 - 22104\,t_2u_4t_3 - 417576\,{u_2}^2{t_1}^2t_3 - 208788\,{u_2}^2{t_1}^2u_4 - 139192\,{u_2}^2t_1u_3t_3 + 30600\,u_2{t_1}^2t_2u_5 + 153000\,u_2{t_1}^2t_2t_4 + 1167836\,u_2{t_1}^3t_2u_3 + 31416\,u_2t_2u_3u_4 + 62832\,u_2t_2u_3t_3 + 10200\,u_2t_1u_3u_5 + 51000\,u_2t_1u_3t_4 +$$

$$80496\,u_2t_1u_4t_3 - 142876\,u_2t_1{u_3}^2u_4 - 857256\,u_2t_1{t_2}^2t_3 - 428628\,u_2t_1{t_2}^2u_4 - 285752\,u_2t_1{u_3}^2t_3 - 123468\,u_2t_1t_2{u_3}^2 - 327236\,u_2t_1t_2^2u_3 + 62832\,t_1t_2u_3u_4 + 125664\,t_1t_2u_3t_3 - 5678\,{u_2}^2{u_3}^3 + 4334\,{u_2}^8 + 1532\,u_2t_7 + 960\,t_4u_5 + 2400\,{t_4}^2 + 600\,t_2u_7 - 1842\,u_3{u_4}^2 + 1400\,u_3t_6 - 7368\,u_3{t_3}^2 - 464\,{u_3}^2u_5 - 2320\,{u_3}^2t_4 + 200\,u_3u_7 - 7368\,u_3u_4t_3 + 96\,{u_5}^2 + 2336\,u_4t_5 - 510\,t_8 - 170\,u_9 + 170\,{u_3}^4)x^9 + O(x^{10}))$$

$$[3]_{UT}(x) = (3\,x + (-3\,u_2 - 6\,t_1)x^2 + (9\,{u_2}^2 + 36\,u_2t_1 + 36\,{t_1}^2 - 24\,t_2 - 8\,u_3)x^3 + (-417\,u_2{t_1}^2 - 78\,t_3 + 153\,u_2t_2 + 51\,u_2u_3 + 306\,t_1t_2 + 102\,t_1u_3 - 189\,{u_2}^2t_1 - 252\,{t_1}^3 - 39\,u_4 - 51\,{u_2}^3)x^4 + (-3420\,u_2t_1t_2 - 1140\,u_2t_1u_3 + 72\,{u_3}^2 + 1251\,{u_2}^3t_1 + 3195\,{u_2}^2{t_1}^2 - 855\,{u_2}^2t_2 - 285\,{u_2}^2u_3 + 4446\,u_2{t_1}^3 + 279\,u_2u_4 + 558\,u_2t_3 - 3420\,{t_1}^2t_2 - 1140\,{t_1}^2u_3 + 558\,t_1u_4 + 1116\,t_1t_3 + 648\,{t_2}^2 + 432\,t_2u_3 + 1944\,{t_1}^4 - 48\,u_5 - 240\,t_4 + 261\,{u_2}^4)x^5 + (-1341\,{u_2}^5 - 8022\,u_2{t_2}^2 + 12034\,u_3{t_1}^3 - 726\,t_5 + 27621\,{u_2}^2t_1t_2 + 9207\,{u_2}^2t_1u_3 + 57591\,u_2{t_1}^2t_2 + 19197\,u_2{t_1}^2u_3 - 6732\,u_2t_1u_4 - 13464\,u_2t_1t_3 - 5106\,u_2t_2u_3 - 10212\,t_1t_2u_3 + 783\,u_3u_4 - 46692\,u_2{t_1}^4 - 8361\,{u_2}^4t_1 - 25029\,{u_2}^3{t_1}^2 + 5778\,{u_2}^3t_2 - 46692\,{u_2}^2{t_1}^3 - 1683\,{u_2}^2u_4 - 3366\,{u_2}^2t_3 - 15984\,{t_1}^5 + 387\,u_2u_5 + 1935\,u_2t_4 - 1702\,t_1{u_3}^2 + 36828\,{t_1}^3t_2 - 6732\,{t_1}^2u_4 - 13464\,{t_1}^2t_3 - 15318\,t_1{t_2}^2 + 774\,t_1u_5 + 3870\,t_1t_4 + 4698\,t_2t_3 + 2349\,t_2u_4 + 1566\,u_3t_3 + 1442\,u_3{u_2}^3 - 1214\,u_2{u_3}^2 - 726\,u_6)x^6 + (2106\,{u_4}^2 + 7452\,{u_2}^6 - 840\,{u_3}^3 - 2184\,t_6 + 8424\,{t_3}^2 - 7560\,t_2{u_3}^2 - 22680\,{t_2}^2u_3 + 3240\,t_2u_5 + 16200\,t_2t_4 + 1080\,u_3u_5 + 5400\,u_3t_4 - 22680\,{t_2}^3 + 8424\,u_4t_3 + 28656\,{t_1}^2{u_3}^2 - 391392\,{t_1}^4t_2 + 76464\,{t_1}^3u_4 + 152928\,{t_1}^3t_3 + 257904\,{t_1}^2{t_2}^2 - 10080\,{t_1}^2u_5 - 50400\,{t_1}^2t_4 + 13104\,t_1u_6 + 171936\,{t_1}^2t_2u_3 + 67752\,{u_2}^2{t_2}^2 + 6552\,u_2t_5 + 631962\,{u_2}^2{t_1}^4 + 54432\,{u_2}^5t_1 + 197802\,{u_2}^4{t_1}^2 - 39348\,{u_2}^4t_2 + 439020\,{u_2}^3{t_1}^3 + 11664\,{u_2}^3u_4 + 23328\,{u_2}^3t_3 + 488592\,u_2{t_1}^5 - 2520\,{u_2}^2u_5 - 12600\,{u_2}^2t_4 - 225468\,{u_2}^3t_1t_2 - 66420\,{u_2}^3t_1u_3 - 616860\,{u_2}^2{t_1}^2t_2 - 205620\,{u_2}^2{t_1}^2u_3 + 57348\,{u_2}^2t_1u_4 + 114696\,{u_2}^2t_1t_3 + 42984\,{u_2}^2t_2u_3 - 278592\,u_2u_3{t_1}^3 - 9924\,u_2u_3u_4 + 35208\,u_2t_1{u_3}^2 - 842328\,u_2{t_1}^3t_2 + 118908\,u_2{t_1}^2u_4 + 237816\,u_2{t_1}^2t_3 + 264456\,u_2t_1{t_2}^2 - 10080\,u_2t_1u_5 - 50400\,u_2t_1t_4 - 59544\,u_2t_2t_3 - 29772\,u_2t_2u_4 - 19848\,u_2u_3t_3 - 19848\,t_1u_3u_4 - 119088\,t_1t_2t_3 - 59544\,t_1t_2u_4 - 39696\,t_1u_3t_3 - 8748\,u_3{u_2}^4 + 10440\,{u_2}^2{u_3}^2 + 6552\,u_2u_6 - 126096\,u_3{t_1}^4 + 13104\,t_1t_5 + 137376\,{t_1}^6 + 171936\,u_2t_1t_2u_3 - 312\,u_7)x^7 + (-6558\,t_7 - 117129\,u_2{t_3}^2 - 88164\,t_1t_2u_5 - 440820\,t_1t_2t_4 - 30102\,u_2{u_4}^2 - 82914\,{u_2}^4u_4 - 3279\,u_8 - 43869\,{u_2}^7 - 1885356\,{u_2}^2t_1t_2u_3 - 3857922\,u_2{t_1}^2t_2u_3 + 351216\,u_2t_1u_3u_4 + 2107296\,u_2t_1t_2t_3 + 1053648\,u_2t_1t_2u_4 + 702432\,u_2t_1u_3t_3 + 23790\,u_2{u_3}^3 + 21861\,u_2t_6 + 423954\,u_2{t_2}^3 - 559692\,{u_2}^3{t_2}^2 - 45891\,{u_2}^2t_5 - 7055556\,{u_2}^3{t_1}^4 - 358866\,{u_2}^6t_1 - 1515339\,{u_2}^5{t_1}^2 + 261063\,{u_2}^5t_2 - 3992148\,{u_2}^4{t_1}^3 - 162549\,{u_2}^4t_3 - 8149473\,{u_2}^2{t_1}^5 + 17982\,{u_2}^3u_5 + 89910\,{u_2}^3t_4 + 56427\,u_3{u_2}^5 - 70452\,{u_2}^3{u_3}^2 - 45891\,{u_2}^2u_6 - 5113368\,u_2{t_1}^6 + 3123\,u_2u_7 - 56925\,t_1{u_4}^2 + 29382\,t_1{u_3}^3 + 43722\,t_1t_6 - 227700\,t_1{t_3}^2 + 793314\,t_1t_2^3 - 412902\,{t_1}^3{u_3}^2 + 4139424\,{t_1}^5t_2 - 848271\,{t_1}^4u_4 - 1689984\,{t_1}^4t_3 - 3770712\,{t_1}^3{t_2}^2 + 1820394\,{u_2}^4t_1t_2 + 484422\,{u_2}^4t_1u_3 + 5964516\,{u_2}^3{t_1}^2t_2 + 1865796\,{u_2}^3t_1^2u_3 - 479421\,{u_2}^3t_1u_4 - 958842\,{u_2}^3t_1t_3 - 321435\,{u_2}^3t_2u_3 + 3785439\,{u_2}^2u_3{t_1}^3 + 87804\,{u_2}^2u_3u_4 - 406008\,{u_2}^2t_1{u_3}^2 + 11402208\,{u_2}^2{t_1}^3t_2 - 1324413\,{u_2}^2{t_1}^2u_4 - 2648826\,{u_2}^2{t_1}^2t_3 - 2919816\,{u_2}^2t_1t_2^2 + 90639\,{u_2}^2t_1u_5 + 453195\,{u_2}^2t_1t_4 + 526824\,{u_2}^2t_2t_3 + 263412\,{u_2}^2t_2u_4 + 175608\,{u_2}^2u_3t_3 - 2495610\,{t_1}^3t_2u_3 + 5751\,u_4u_5 + 28755\,u_4t_4 + 11502\,t_3u_5 + 57510\,t_3t_4 - 87210\,t_2u_3u_4 - 174420\,t_2u_3t_3 + 54594\,t_2t_5 - 261630\,{t_2}^2t_3 - 130815\,{t_2}^2u_4 + 54594\,t_2u_6 + 18198\,u_3t_5 - 14535\,{u_3}^2u_4 - 29070\,{u_3}^2t_3 + 18198\,u_3u_6 - 29388\,t_1u_3u_5 - 146940\,t_1u_3t_4 - 227700\,t_1u_4t_3 - 1219536\,{t_1}^7 + 120852\,{t_1}^3u_5 + 604260\,{t_1}^3t_4 - 183564\,{t_1}^2u_6 + 1318620\,u_3{t_1}^5 - 183564\,{t_1}^2t_5 + 6246\,t_1u_7 + 351216\,{t_1}^2u_3u_4 + 2107296\,{t_1}^2t_2t_3 + 1053648\,{t_1}^2t_2u_4 + 702432\,{t_1}^2u_3t_3 + 159516\,u_2t_2{u_3}^2 + 405756\,u_2{t_2}^2u_3 - 44082\,u_2t_2u_5 - 220410\,u_2t_2t_4 - 14694\,u_2u_3u_5 - 73470\,u_2u_3t_4 - 113850\,u_2u_4t_3 - 734769\,u_2{t_1}^2{u_3}^2 + 11402208\,u_2{t_1}^4t_2 - 1803834\,u_2{t_1}^3u_4 - 3607668\,u_2{t_1}^3t_3 - 5878665\,u_2{t_1}^2t_2^2 + 187029\,u_2{t_1}^2u_5 + 935145\,u_2{t_1}^2t_4 - 183564\,u_2t_1u_6 + 3739548\,u_2u_3{t_1}^4 - 183564\,u_2t_1t_5 + 264438\,t_1t_2{u_3}^2 + 793314\,t_1{t_2}^2u_3)x^8 + (1201600\,u_3{t_2}^3 + 17563002\,{u_2}^3{t_1}^2t_2u_3 + 52673706\,{u_2}^2{t_1}^2t_2u_3 - 3997836\,{u_2}^2t_1u_3u_4 - 830340\,t_1u_4t_4 - 332136\,t_1t_3u_5 - 1660680\,t_1t_3t_4 - 1590696\,t_1t_2t_5 + 9590076\,t_1{t_2}^2t_3 + 4795038\,t_1{t_2}^2u_4 - 1590696\,t_1t_2u_6 - 530232\,t_1u_3t_5 + 532782\,t_1{u_3}^2u_4 + 1065564\,t_1{u_3}^2t_3 - 530232\,t_1u_3u_6 + 11096352\,{t_1}^8 - 1744497\,{u_2}^6t_2 + 34859970\,{u_2}^5{t_1}^3 + 1103301\,{u_2}^5t_3 + 106386651\,{u_2}^3{t_1}^5 - 128430\,{u_2}^4u_5 - 642150\,{u_2}^4t_4 - 356157\,u_3{u_2}^6 +$$

$$480148\,{u_2}^4{u_3}^2 + 338013\,{u_2}^3u_6 + 101747178\,{u_2}^2{t_1}^6 - 23427\,{u_2}^2u_7 + 53592192\,u_2{t_1}^7 + 144324\,t_1t_7 + 72162\,t_1u_8 + 1055754\,{t_1}^2{u_4}^2 - 663640\,{t_1}^2{u_3}^3 - 655956\,{t_1}^2t_6 + 4223016\,{t_1}^2{t_3}^2 - 17918280\,{t_1}^2{t_2}^3 + 5498296\,{t_1}^4{u_3}^2 - 43715376\,{t_1}^6t_2 + 9278946\,{t_1}^5u_4 + 18413568\,{t_1}^5t_3 + 51075360\,{t_1}^4{t_2}^2 - 1390608\,{t_1}^4u_5 - 6953040\,{t_1}^4t_4 + 2319840\,{t_1}^3u_6 - 13798512\,u_3{t_1}^6 + 2319840\,{t_1}^3t_5 - 93708\,{t_1}^2u_7 - 18713628\,u_2t_1{t_2}^3 - 147137472\,u_2{t_1}^5t_2 + 25164549\,u_2{t_1}^4u_4 + 50256936\,u_2{t_1}^4t_3 + 108105678\,u_2{t_1}^3{t_2}^2 - 83034\,u_2u_4u_5 - 415170\,u_2u_4t_4 - 166068\,u_2t_3u_5 - 830340\,u_2t_3t_4 - 795348\,u_2t_2t_5 + 4891104\,u_2{t_2}^2t_3 + 2445552\,u_2{t_2}^2u_4 - 795348\,u_2t_2u_6 - 265116\,u_2u_3t_5 + 314424\,u_2{u_3}^2u_4 + 628848\,u_2{u_3}^2t_3 - 265116\,u_2u_3u_6 - 2947284\,u_2{t_1}^3u_5 - 14736420\,u_2{t_1}^3t_4 + 3575826\,u_2{t_1}^2u_6 - 47853882\,u_2u_3{t_1}^5 + 3575826\,u_2{t_1}^2t_5 - 93708\,u_2t_1u_7 - 166068\,t_1u_4u_5 + 12954410\,u_2{t_1}^3{u_3}^2 - 14193387\,{u_2}^5t_1t_2 - 3571209\,{u_2}^5t_1u_3 - 55223532\,{u_2}^4{t_1}^2t_2 - 16023960\,{u_2}^4{t_1}^2u_3 + 3968955\,{u_2}^4t_1u_4 + 7865748\,{u_2}^4t_1t_3 + 2397081\,{u_2}^4t_2u_3 - 41433309\,{u_2}^3u_3{t_1}^3 - 684909\,{u_2}^3u_3u_4 + 3620363\,{u_2}^3t_1{u_3}^2 - 129277620\,{u_2}^3{t_1}^3t_2 + 13092111\,{u_2}^3{t_1}^2u_4 + 26184222\,{u_2}^3{t_1}^2t_3 + 28805139\,{u_2}^3t_1{t_2}^2 - 778338\,{u_2}^3t_1u_5 - 3891690\,{u_2}^3t_1t_4 - 4493718\,{u_2}^3t_2t_3 - 2246859\,{u_2}^3t_2u_4 - 1369818\,{u_2}^3u_3t_3 - 1890864\,{u_2}^2t_2{u_3}^2 - 4612128\,{u_2}^2{t_2}^2u_3 + 410427\,{u_2}^2t_2u_5 + 2052135\,{u_2}^2t_2t_4 + 136809\,{u_2}^2u_3u_5 + 684045\,{u_2}^2u_3t_4 + 1055754\,{u_2}^2u_4t_3 + 10566864\,{u_2}^2{t_1}^2{u_3}^2 - 188167617\,{u_2}^2{t_1}^4t_2 + 25128468\,{u_2}^2{t_1}^3u_4 + 50256936\,{u_2}^2{t_1}^3t_3 + 80798472\,{u_2}^2{t_1}^2t_2^2 - 2168946\,{u_2}^2{t_1}^2u_5 - 10844730\,{u_2}^2{t_1}^2t_4 + 1739880\,{u_2}^2t_1u_6 - 62142579\,{u_2}^2u_3{t_1}^4 + 1739880\,{u_2}^2t_1t_5 + 1641708\,{t_1}^2t_2u_5 + 8208540\,{t_1}^2t_2t_4 + 33520008\,{t_1}^4t_2u_3 + 547236\,{t_1}^2u_3u_5 + 2736180\,{t_1}^2u_3t_4 + 4223016\,{t_1}^2u_4t_3 - 5298426\,{t_1}^3u_3u_4 - 31982688\,{t_1}^3t_2t_3 - 15991344\,{t_1}^3t_2u_4 - 10596852\,{t_1}^3u_3t_3 - 5972760\,{t_1}^2t_2{u_3}^2 - 17918280\,{t_1}^2t_2^2u_3 + 1091835\,u_2t_1{u_4}^2 - 928756\,u_2t_1{u_3}^3 - 655956\,u_2t_1t_6 + 4295178\,u_2t_1t_3^2 + 1091835\,{u_2}^2t_3^2 + 281979\,{u_2}^2{u_4}^2 + 569691\,{u_2}^5u_4 + 36081\,u_2u_8 - 163989\,{u_2}^2t_6 - 4877244\,{u_2}^2t_2^3 + 4559976\,{u_2}^4t_2^2 + 338013\,{u_2}^3t_5 + 72901233\,{u_2}^4{t_1}^4 + 2414061\,{u_2}^7t_1 + 11424483\,{u_2}^6{t_1}^2 + 96066\,u_4u_6 + 192132\,t_3t_5 + 192132\,t_3u_6 - 991764\,t_2t_3^2 + 604080\,t_2^2{u_3}^2 - 191808\,t_2^2u_5 - 959040\,t_2^2t_4 + 906120\,t_2^4 - 247941\,t_2{u_4}^2 + 134240\,t_2{u_3}^3 + 181440\,t_2t_6 - 127872\,t_2u_3u_5 - 639360\,t_2u_3t_4 - 991764\,t_2u_4t_3 - 23987016\,{u_2}^2t_1t_2t_3 - 11993508\,{u_2}^2t_1t_2u_4 - 7995672\,{u_2}^2t_1u_3t_3 + 1641708\,u_2t_1t_2u_5 + 8208540\,u_2t_1t_2t_4 + 71032056\,u_2{t_1}^3t_2u_3 + 1598346\,u_2t_2u_3u_4 + 3196692\,u_2t_2u_3t_3 + 547236\,u_2t_1u_3u_5 + 2736180\,u_2t_1u_3t_4 + 4223016\,u_2t_1u_4t_3 - 8160966\,u_2{t_1}^2u_3u_4 - 48965796\,u_2{t_1}^2t_2t_3 - 24482898\,u_2{t_1}^2t_2u_4 - 16321932\,u_2{t_1}^2u_3t_3 - 6768108\,u_2t_1t_2{u_3}^2 - 18183396\,u_2t_1t_2^2u_3 + 3196692\,t_1t_2u_3u_4 + 6393384\,t_1t_2u_3t_3 - 298468\,{u_2}^2{u_3}^3 + 262206\,{u_2}^8 + 72162\,u_2t_7 + 38880\,t_4u_5 + 97200\,{t_4}^2 + 25920\,t_2u_7 - 82647\,u_3{u_4}^2 + 60480\,u_3t_6 - 330588\,u_3t_3^2 - 21312\,{u_3}^2u_5 - 106560\,{u_3}^2t_4 + 8640\,u_3u_7 - 330588\,u_3u_4t_3 + 3888\,{u_5}^2 + 96066\,u_4t_5 - 19680\,t_8 - 6560\,u_9 + 9000\,{u_3}^4)x^9 + O(x^{10}))$$

$$[4]_{UT}(x) = (4\,x + (-6\,u_2 - 12\,t_1)x^2 + (-60\,t_2 - 20\,u_3 + 24\,{u_2}^2 + 96\,u_2t_1 + 96\,{t_1}^2)x^3 + (-1494\,u_2{t_1}^2 - 252\,t_3 + 528\,u_2t_2 + 176\,u_2u_3 + 1056\,t_1t_2 + 352\,t_1u_3 - 684\,{u_2}^2t_1 - 912\,{t_1}^3 - 126\,u_4 - 177\,{u_2}^3)x^4 + (-16224\,u_2{t_1}^2t_2 - 5408\,u_2t_1u_3 + 320\,{u_3}^2 + 6072\,{u_2}^3t_1 + 15672\,{u_2}^2{t_1}^2 - 4056\,{u_2}^2t_2 - 1352\,{u_2}^2u_3 + 21744\,u_2{t_1}^3 + 1272\,u_2u_4 + 2544\,u_2t_3 - 16224\,{t_1}^2t_2 - 5408\,{t_1}^2u_3 + 2544\,t_1u_4 + 5088\,t_1t_3 + 2880\,t_2^2 + 1920\,t_2u_3 + 9600\,{t_1}^4 - 204\,u_5 - 1020\,t_4 + 1236\,{u_2}^4)x^5 + (-8694\,{u_2}^5 - 49350\,u_2t_2^2 + 78572\,u_3{t_1}^3 - 4092\,t_5 + 179856\,{u_2}^2t_1t_2 + 59952\,{u_2}^2t_1u_3 + 373440\,u_2{t_1}^2t_2 + 124480\,u_2{t_1}^2u_3 - 42576\,u_2t_1u_4 - 85152\,u_2t_1t_3 - 31536\,u_2t_2u_3 - 63072\,t_1t_2u_3 + 4576\,u_3u_4 - 312336\,u_2{t_1}^4 - 55008\,{u_2}^4t_1 - 166812\,{u_2}^3{t_1}^2 + 36840\,{u_2}^3t_2 - 312336\,{u_2}^2{t_1}^3 - 10644\,{u_2}^2u_4 - 21288\,{u_2}^2t_3 - 107904\,{t_1}^5 + 2352\,u_2u_5 + 11760\,u_2t_4 - 10512\,t_1{u_3}^2 + 239808\,{t_1}^3t_2 - 42576\,{t_1}^2u_4 - 85152\,{t_1}^2t_3 - 94608\,t_1t_2^2 + 4704\,t_1u_5 + 23520\,t_1t_4 + 27456\,t_2t_3 + 13728\,t_2u_4 + 9152\,u_3t_3 + 9552\,u_3{u_2}^3 - 7302\,u_2{u_3}^2 - 4092\,u_6)x^6 + (16128\,{u_4}^2 + 65544\,{u_2}^6 - 6720\,{u_3}^3 - 16380\,t_6 + 64512\,t_3^2 - 60480\,t_2{u_3}^2 - 181440\,t_2^2u_3 + 25152\,t_2u_5 + 125760\,t_2t_4 + 8384\,u_3u_5 + 41920\,u_3t_4 - 181440\,t_2^3 + 64512\,u_4t_3 + 244416\,{t_1}^2{u_3}^2 - 3495552\,{t_1}^4t_2 + 667008\,{t_1}^3u_4 + 1334016\,{t_1}^3t_3 + 2199744\,{t_1}^2t_2^2 - 85536\,{t_1}^2u_5 - 427680\,{t_1}^2t_4 + 106464\,t_1u_6 + 1466496\,{t_1}^2t_2u_3 + 576552\,{u_2}^2t_2^2 + 53232\,u_2t_5 + 5774400\,{u_2}^2{t_1}^4 + 488016\,{u_2}^5t_1 + 1789200\,{u_2}^4{t_1}^2 - 340380\,{u_2}^4t_2 + 4005600\,{u_2}^3{t_1}^3 + 99504\,{u_2}^3u_4 + 199008\,{u_2}^3t_3 + 4473216\,u_2{t_1}^5 - 21384\,{u_2}^2u_5 - 106920\,{u_2}^2t_4 - 1991592\,{u_2}^3t_1t_2 - 592888\,{u_2}^3t_1u_3 - 5487144\,{u_2}^2{t_1}^2t_2 - 1829048\,{u_2}^2{t_1}^2u_3 + 500256\,{u_2}^2t_1u_4 + 1000512\,{u_2}^2t_1t_3 + 366624\,{u_2}^2t_2u_3 - 2475168\,u_2u_3{t_1}^3 - 81272\,u_2u_3u_4 + 297648\,u_2t_1{u_3}^2 - 7478736\,u_2{t_1}^3t_2 + 1032768\,u_2{t_1}^2u_4 + 2065536\,u_2{t_1}^2t_3 + 2252976\,u_2t_1t_2^2 - 85536\,u_2t_1u_5 - 427680\,u_2t_1t_4 - 487632\,u_2t_2t_3 - 243816\,u_2t_2u_4 - 162544\,u_2u_3t_3 - 162544\,t_1u_3u_4 - 975264\,t_1t_2t_3 - 487632\,t_1t_2u_4 - 325088\,t_1u_3t_3 - 77972\,u_3{u_2}^4 + 87720\,{u_2}^2{u_3}^2 + 53232\,{u_2}^2u_6 - 1129696\,u_3{t_1}^4 + 106464\,t_1t_5 + 1268736\,{t_1}^6 + 1466496\,u_2t_1t_2u_3 - 2340\,u_7)x^7 + (-65532\,t_7 - 1264134\,u_2t_3^2 - 964896\,t_1t_2u_5 - 4824480\,t_1t_2t_4 - 324225\,u_2{u_4}^2 - 957981\,{u_2}^4u_4 - 32766\,u_8 - 522456\,{u_2}^7 - 22142016\,{u_2}^2t_1t_2u_3 - 45205248\,u_2{t_1}^2t_2u_3 + 3992160\,u_2t_1u_3u_4 + 23952960\,u_2t_1t_2t_3 + 11976480\,u_2t_1t_2u_4 + 7984320\,u_2t_1u_3t_3 + 257472\,{u_2}{u_3}^3 + 237552\,u_2t_6 + 4691520\,u_2t_2^3 - 6488004\,{u_2}^3t_2^2 - 523176\,{u_2}^2t_5 - 88042977\,{u_2}^3{t_1}^4 - 4374909\,{u_2}^6t_1 - 18662454\,{u_2}^5{t_1}^2 + 3080940\,{u_2}^5t_2 - 49545108\,{u_2}^4{t_1}^3 - 1883196\,{u_2}^4t_3 - 101822148\,{u_2}^2{t_1}^5 + 206688\,{u_2}^3u_5 + 1033440\,{u_2}^3t_4 + 678196\,u_3{u_2}^5 - 827844\,{u_2}^3{u_3}^2 - 523176\,{u_2}^2u_6 - 64090944\,u_2{t_1}^6 + 33936\,u_2u_7 - 615684\,t_1{u_4}^2 + 326592\,t_1{u_3}^3 + 475104\,t_1t_6 - 2462736\,t_1t_3^2 + 8817984\,t_1t_2^3 - 4857664\,{t_1}^3{u_3}^2 + 50684160\,{t_1}^5t_2 - 10172862\,{t_1}^4u_4 - 20280192\,{t_1}^4t_3 - 44284032\,{t_1}^3t_2^2 + 21827040\,{u_2}^4t_1t_2 + 5880544\,{u_2}^4t_1u_3 + 72337560\,{u_2}^3{t_1}^2t_2 + 22717384\,{u_2}^3{t_1}^2u_3 - 5685732\,{u_2}^3t_1u_4 - 11371464\,{u_2}^3t_1t_3 - 3774240\,{u_2}^3t_2u_3 + 46054568\,{u_2}^2u_3{t_1}^3 + 998040\,{u_2}^2u_3u_4 - 4736688\,{u_2}^2t_1u_3^2 + 138686880\,{u_2}^2{t_1}^3t_2 - 15825828\,{u_2}^2{t_1}^2u_4 - 31651656\,{u_2}^2{t_1}^2t_3 - 34259376\,{u_2}^2t_1t_2^2 + 1065024\,{u_2}^2t_1u_5 + 5325120\,{u_2}^2t_1t_4 + 5988240\,{u_2}^2t_2t_3 + 2994120\,{u_2}^2t_2u_4 + 1996080\,{u_2}^2u_3t_3 - 29334336\,{t_1}^3t_2u_3 + 58368\,u_4u_5 + 291840\,u_4t_4 + 116736\,t_3u_5 + 583680\,t_3t_4 - 921216\,t_2u_3u_4 - 1842432\,t_2u_3t_3 + 565056\,t_2t_5 - 2763648\,t_2^2t_3 - 1381824\,t_2^2u_4 + 565056\,t_2u_6 + 188352\,u_3t_5 - 153536\,{u_3}^2u_4 - 307072\,{u_3}^2t_3 + 188352\,u_3u_6 - 321632\,t_1u_3u_5 - 1608160\,t_1u_3t_4 - 2462736\,t_1u_4t_3 - 15414528\,{t_1}^7 + 1420032\,{t_1}^3u_5 + 7100160\,{t_1}^3t_4 - 2092704\,{t_1}^2u_6 + 16197152\,u_3{t_1}^5 - 2092704\,{t_1}^2t_5 + 67872\,t_1u_7 + 3992160\,{t_1}^2u_3u_4 + 23952960\,{t_1}^2t_2t_3 + 11976480\,{t_1}^2t_2u_4 + 7984320\,{t_1}^2u_3t_3 + 1752192\,u_2t_2{u_3}^2 + 4503168\,u_2t_2^2u_3 - 482448\,u_2t_2u_5 - 2412240\,u_2t_2t_4 - 160816\,u_2u_3u_5 - 804080\,u_2u_3t_4 - 1231368\,u_2u_4t_3 - 8580560\,u_2{t_1}^2{u_3}^2 + 138686880\,u_2{t_1}^4t_2 - 21511560\,u_2{t_1}^3u_4 - 43023120\,u_2{t_1}^3t_3 - 68854224\,u_2{t_1}^2t_2^2 + 2188416\,u_2{t_1}^2u_5 + 10942080\,u_2{t_1}^2t_4 - 2092704\,u_2t_1u_6 + 45531392\,u_2u_3{t_1}^4 - 2092704\,u_2t_1t_5 + 2939328\,t_1t_2{u_3}^2 + 8817984\,t_1t_2^2u_3)x^8 + (17342380\,u_3t_2^3 + 282900480\,{u_2}^3t_1t_2u_3 + 848180160\,{u_2}^2{t_1}^2t_2u_3 - 62783520\,{u_2}^2t_1u_3u_4 - 11969040\,t_1u_4t_4 - 4787616\,t_1t_3u_5 - 23938080\,t_1t_3t_4 - 23317920\,t_1t_2t_5 + 141471360\,t_1t_2^2t_3 + 70735680\,t_1t_2^2u_4 - 23317920\,t_1t_2u_6 - 7772640\,t_1u_3t_5 + 7859520\,t_1{u_3}^2u_4 + 15719040\,t_1{u_3}^2t_3 - 7772640\,t_1u_3u_6 + 191993856\,{t_1}^8 - 28020852\,{u_2}^6t_2 + 589071168\,{u_2}^5{t_1}^3 + 17451408\,{u_2}^5t_3 + 1815742296\,{u_2}^3{t_1}^5 - 2007036\,{u_2}^4u_5 - 10035180\,{u_2}^4t_4 - 5845564\,u_3{u_2}^6 + 7721440\,{u_2}^4{u_3}^2 + 5242080\,{u_2}^3u_6 + 1739329632\,{u_2}^2{t_1}^6 - 358680\,{u_2}^2u_7 + 919752192\,u_2{t_1}^7 + 2097120\,t_1t_7 + 1048560\,t_1u_8 + 15930720\,{t_1}^2{u_4}^2 - 10199680\,{t_1}^2{u_3}^3 - 10043040\,{t_1}^2t_6 + 63722880\,{t_1}^2t_3^2 - 275391360\,{t_1}^2t_2^3 + 89031520\,{t_1}^4{u_3}^2 - 733636608\,{t_1}^6t_2 + 152825328\,{t_1}^5u_4 + 303553536\,{t_1}^5t_3 + 824601600\,{t_1}^4t_2^2 - 22537344\,{t_1}^4u_5 - 112686720\,{t_1}^4t_4 + 36744960\,{t_1}^3u_6 - 232297216\,u_3{t_1}^6 + 36744960\,{t_1}^3t_5 - 1434720\,{t_1}^2u_7 - 287050320\,u_2t_1t_2^3 - 2452043904\,u_2{t_1}^5t_2 + 411827640\,u_2{t_1}^4u_4 + 822606720\,u_2{t_1}^4t_3 + 1738311360\,u_2{t_1}^3t_2^2 - 1196904\,u_2u_4u_5 - 5984520\,u_2u_4t_4 - 2393808\,u_2t_3u_5 - 11969040\,u_2t_3t_4 - 11658960\,u_2t_2t_5 + 72033600\,u_2t_2^2t_3 + 36016800\,u_2t_2^2u_4 - 11658960\,u_2t_2u_6 - 3886320\,u_2u_3t_5 + 4578720\,u_2{u_3}^2u_4 + 9157440\,u_2{u_3}^2t_3 - 3886320\,u_2u_3u_6 - 47468496\,u_2{t_1}^3u_5 - 237342480\,u_2{t_1}^3t_4 + 56415360\,u_2{t_1}^2u_6 - 798542848\,u_2u_3{t_1}^5 + 56415360\,u_2{t_1}^2t_5 - 1434720\,u_2t_1u_7 - 2393808\,t_1u_4u_5 + 208181360\,u_2{t_1}^3{u_3}^2 - 231732144\,{u_2}^5t_1t_2 - 58871568\,{u_2}^5t_1u_3 - 910974240\,{u_2}^4{t_1}^2t_2 - 266047840\,{u_2}^4{t_1}^2u_3 + 63885240\,{u_2}^4t_1u_4 + 126721920\,{u_2}^4t_1t_3 + 38375040\,{u_2}^4t_2u_3 - 689759040\,{u_2}^3u_3{t_1}^3 - 10747840\,{u_2}^3u_3u_4 + 58338560\,{u_2}^3t_1{u_3}^2 - 2148009120\,{u_2}^3{t_1}^3t_2 + 213617040\,{u_2}^3{t_1}^2u_4 + 427234080\,{u_2}^3{t_1}^2t_3 + 461448000\,{u_2}^3t_1t_2^2 - 12465576\,{u_2}^3t_1u_5 - 62327880\,{u_2}^3t_1t_4 - 69678720\,{u_2}^3t_2t_3 - 34839360\,{u_2}^3t_2u_4 - 21495680\,{u_2}^3u_3t_3 - 28778760\,{u_2}^2t_2{u_3}^2 - 70791000\,{u_2}^2t_2^2u_3 + 6259536\,{u_2}^2t_2u_5 +$$

$$31297680\,u_2^2t_2t_4+2086512\,u_2^2u_3u_5+10432560\,u_2^2u_3t_4+15930720\,u_2^2u_4t_3+169571040\,u_2^2t_1^2u_3^2-3131286000\,u_2^2t_1^4t_2+411303360\,u_2^2t_1^3u_4+822606720\,u_2^2t_1^3t_3+1300477920\,u_2^2t_1^2t_2^2-35002920\,u_2^2t_1^2u_5-175014600\,u_2^2t_1^2t_4+27558720\,u_2^2t_1u_6-1034575760\,u_2^2u_3t_1^4+27558720\,u_2^2t_1t_5+25038144\,t_1^2t_2u_5+125190720\,t_1^2t_2t_4+541961760\,t_1^4t_2u_3+8346048\,t_1^2u_3u_5+41730240\,t_1^2u_3t_4+63722880\,t_1^2u_4t_3-83278720\,t_1^3u_3u_4-502268160\,t_1^3t_2t_3-251134080\,t_1^3t_2u_4-166557440\,t_1^3u_3t_3-91797120\,t_1^2t_2u_3^2-275391360\,t_1^2t_2^2u_3+16455000\,u_2t_1u_4^2-14086000\,u_2t_1u_3^3-10043040\,u_2t_1t_6+64771440\,u_2t_1t_3^2+16455000\,u_2^2t_3^2+4244820\,u_2^2u_4^2+8987844\,u_2^5u_4+524280\,u_2u_8-2510760\,u_2^2t_6-74677320\,u_2^2t_2^3+71842560\,u_2^4t_2^2+5242080\,u_2^3t_5+1239590580\,u_2^4t_1^4+39959556\,u_2^7t_1+191566176\,u_2^6t_1^2+1297920\,u_4u_6+2595840\,t_3t_5+2595840\,t_3u_6-13790400\,t_2t_3^2+8714880\,t_2^2u_3^2-2699136\,t_2^2u_5-13495680\,t_2^2t_4+13072320\,t_2^4-3447600\,t_2u_4^2+1936640\,t_2u_3^3+2506560\,t_2t_6-1799424\,t_2u_3u_5-8997120\,t_2u_3t_4-13790400\,t_2u_4t_3-376701120\,u_2^2t_1t_2t_3-188350560\,u_2^2t_1t_2u_4-125567040\,u_2^2t_1u_3t_3+25038144\,u_2t_1t_2u_5+125190720\,u_2t_1t_2t_4+1142739600\,u_2t_1^3t_2u_3+23578560\,u_2t_2u_3u_4+47157120\,u_2t_2u_3t_3+8346048\,u_2t_1u_3u_5+41730240\,u_2t_1u_3t_4+63722880\,u_2t_1u_4t_3-127865440\,u_2t_1^2u_3u_4-767192640\,u_2t_1^2t_2t_3-383596320\,u_2t_1^2t_2u_4-255730880\,u_2t_1^2u_3t_3-103456080\,u_2t_1t_2u_3^2-279277680\,u_2t_1t_2^2u_3+47157120\,t_1t_2u_3u_4+94314240\,t_1t_2u_3t_3-4493080\,u_2^2u_3^3+4248228\,u_2^8+1048560\,u_2t_7+522240\,t_4u_5+1305600\,t_4^2+358080\,t_2u_7-1149200\,u_3u_4^2+835520\,u_3t_6-4596800\,u_3t_3^2-299904\,u_3^2u_5-1499520\,u_3^2t_4+119360\,u_3u_7-4596800\,u_3u_4t_3+52224\,u_5^2+1297920\,u_4t_5-262140\,t_8-87380\,u_9+132260\,u_3^4)x^9+O(x^{10}))$$

$$[5]_{UT}(x)=(5\,x+(-10\,u_2-20\,t_1)x^2+(50\,u_2^2+200\,u_2t_1+200\,t_1^2-120\,t_2-40\,u_3)x^3+(-3910\,u_2t_1^2-620\,t_3+1350\,u_2t_2+450\,u_2u_3+2700\,t_1t_2+900\,t_1u_3-1800\,u_2^2t_1-2400\,t_1^3-310\,u_4-455\,u_2^3)x^4+(-52800\,u_2t_1t_2-17600\,u_2t_1u_3+1000\,u_3^2+20050\,u_2^3t_1+52050\,u_2^2t_1^2-13200\,u_2^2t_2-4400\,u_2^2u_3+72100\,u_2t_1^3+4050\,u_2u_4+8100\,u_2t_3-52800\,t_1^2t_2-17600\,t_1^2u_3+8100\,t_1u_4+16200\,t_1t_3+9000\,t_2^2+6000\,t_2u_3+32000\,t_1^4-624\,u_5-3120\,t_4+4025\,u_2^4)x^5+(-35925\,u_2^5-197260\,u_2t_2^2+325460\,u_3t_1^3-15620\,t_5+744000\,u_2^2t_1t_2+248000\,u_2^2t_1u_3+1541250\,u_2t_1^2t_2+513750\,u_2t_1^2u_3-173400\,u_2t_1u_4-346800\,u_2t_1t_3-126300\,u_2t_2u_3-252600\,t_1t_2u_3+17750\,u_3u_4-1313400\,u_2t_1^4-229200\,u_2^4t_1-700050\,u_2^3t_1^2+150625\,u_2^3t_2-1313400\,u_2^2t_1^3-43350\,u_2^2u_4-86700\,u_2^2t_3-456000\,t_1^5+9370\,u_2u_5+46850\,u_2t_4-42100\,t_1u_3^2+992000\,t_1^3t_2-173400\,t_1^2u_4-346800\,t_1^2t_3-378900\,t_1t_2^2+18740\,t_1u_5+93700\,t_1t_4+106500\,t_2t_3+53250\,t_2u_4+35500\,u_3t_3+39795\,u_3u_2^3-28860\,u_2u_3^2-15620\,u_6)x^6+(77500\,u_4^2+342000\,u_2^6-33000\,u_3^3-78120\,t_6+310000\,t_3^2-297000\,t_2u_3^2-891000\,t_2^2u_3+121800\,t_2u_5+609000\,t_2t_4+40600\,u_3u_5+203000\,u_3t_4-891000\,t_2^3+310000\,u_4t_3+1249000\,t_1^2u_3^2-18368000\,t_1^4t_2+3462000\,t_1^3u_4+6924000\,t_1^3t_3+11241000\,t_1^2t_2^2-437360\,t_1^2u_5-2186800\,t_1^2t_4+531200\,t_1u_6+7494000\,t_1^2t_2u_3+2943050\,u_2^2t_2^2+265600\,u_2t_5+30770500\,u_2^2t_1^4+2573250\,u_2^5t_1+9481750\,u_2^4t_1^2-1756850\,u_2^4t_2+21327500\,u_2^3t_1^3+510250\,u_2^3u_4+1020500\,u_2^3t_3+23862000\,u_2t_1^5-109340\,u_2^2u_5-546700\,u_2^2t_4-10401700\,u_2^3t_1t_2-3113100\,u_2^3t_1u_3-28769700\,u_2^2t_1^2t_2-9589900\,u_2^2t_1^2u_3+2596500\,u_2^2t_1u_4+5193000\,u_2^2t_1t_3+1873500\,u_2^2t_2u_3-12968600\,u_2u_3t_1^3-405900\,u_2u_3u_4+1514600\,u_2t_1u_3^2-39171400\,u_2t_1^3t_2+5348000\,u_2t_1^2u_4+10696000\,u_2t_1^2t_3+11506600\,u_2t_1t_2^2-437360\,u_2t_1u_5-2186800\,u_2t_1t_4-2435400\,u_2t_2t_3-1217700\,u_2t_2u_4-811800\,u_2u_3t_3-811800\,t_1u_3u_4-4870800\,t_1t_2t_3-2435400\,t_1t_2u_4-1623600\,t_1u_3t_3-408550\,u_3u_2^4+445050\,u_2^2u_3^2+265600\,u_2u_6-5945600\,u_3t_1^4+531200\,t_1t_5+6800000\,t_1^6+7494000\,u_2t_1t_2u_3-11160\,u_7)x^7+(-390620\,t_7-7847510\,u_2t_3^2-6035160\,t_1t_2u_5-30175800\,t_1t_2t_4-2010705\,u_2u_4^2-6195955\,u_2^4u_4-195310\,u_8-3438465\,u_2^7-144084000\,u_2^2t_1t_2u_3-293794500\,u_2t_1^2t_2u_3+25513000\,u_2t_1u_3u_4+153078000\,u_2t_1t_2t_3+76539000\,u_2t_1t_2u_4+51026000\,u_2t_1u_3t_3+1597500\,u_2u_3^3+1484350\,u_2t_6+29446500\,u_2t_2^3-41920475\,u_2^3t_2^2-3359200\,u_2^2t_5-594438705\,u_2^3t_1^4-29160025\,u_2^6t_1-125096300\,u_2^5t_1^2+20136125\,u_2^5t_2-333522100\,u_2^4t_1^3-12196600\,u_2^4t_3-$$

$$687954100\,u_2^2t_1^5+1333975\,u_2^3u_5+6669875\,u_2^3t_4+4472575\,u_3u_2^5-5390475\,u_2^3u_3^2-3359200\,u_2^2u_6-433764000\,u_2t_1^6+212050\,u_2u_7-3826100\,t_1u_4^2+2054500\,t_1u_3^3+2968700\,t_1t_6-15304400\,t_1t_3^2+55471500\,t_1t_2^3-31638500\,t_1^3u_3^2+338200000\,t_1^5t_2-67159310\,t_1^4u_4-133928000\,t_1^4t_3-288168000\,t_1^3t_2^2+143957000\,u_2^4t_1t_2+39027800\,u_2^4t_1u_3+480154250\,u_2^3t_1^2t_2+151093550\,u_2^3t_1^2u_3-37308100\,u_2^3t_1u_4-74616200\,u_2^3t_1t_3-24546250\,u_2^3t_2u_3+306226600\,u_2^2u_3t_1^3+6378250\,u_2^2u_3u_4-30732400\,u_2^2t_1u_3^2+922039000\,u_2^2t_1^3t_2-104272100\,u_2^2t_1^2u_4-208544200\,u_2^2t_1^2t_3-222844400\,u_2^2t_1t_2^2+6954600\,u_2^2t_1u_5+34773000\,u_2^2t_1t_4+38269500\,u_2^2t_2t_3+19134750\,u_2^2t_2u_4+12756500\,u_2^2u_3t_3-190971500\,t_1^3t_2u_3+349750\,u_4u_5+1748750\,u_4t_4+699500\,t_3u_5+3497500\,t_3t_4-5626500\,t_2u_3u_4-11253000\,t_2u_3t_3+3421500\,t_2t_5-16879500\,t_2^2t_3-8439750\,t_2^2u_4+3421500\,t_2u_6+1140500\,u_3t_5-937750\,u_3^2u_4-1875500\,u_3^2t_3+1140500\,u_3u_6-2011720\,t_1u_3u_5-10058600\,t_1u_3t_4-15304400\,t_1u_4t_3-104800000\,t_1^7+9272800\,t_1^3u_5+46364000\,t_1^3t_4-13436800\,t_1^2u_6+108254400\,u_3t_1^5-13436800\,t_1^2t_5+424100\,t_1u_7+25513000\,t_1^2u_3u_4+153078000\,t_1^2t_2t_3+76539000\,t_1^2t_2u_4+51026000\,t_1^2u_3t_3+10956000\,u_2t_2u_3^2+28306000\,u_2t_2^2u_3-3017580\,u_2t_2u_5-15087900\,u_2t_2t_4-1005860\,u_2u_3u_5-5029300\,u_2u_3t_4-7652200\,u_2u_4t_3-55684150\,u_2t_1^2u_3^2+922039000\,u_2t_1^4t_2-141580200\,u_2t_1^3u_4-283160400\,u_2t_1^3t_3-447410150\,u_2t_1^2t_2^2+14258950\,u_2t_1^2u_5+71294750\,u_2t_1^2t_4-13436800\,u_2t_1u_6+302867400\,u_2u_3t_1^4-13436800\,u_2t_1t_5+18490500\,t_1t_2u_3^2+55471500\,t_1t_2^2u_3)x^8+(133952960\,u_3t_2^3+2338353300\,u_2^3t_1t_2u_3+7010620500\,u_2^2t_1^2t_2u_3-511922000\,u_2^2t_1u_3u_4-93019400\,t_1u_4t_4-37207760\,t_1t_3u_5-186038800\,t_1t_3t_4-182800800\,t_1t_2t_5+1110123000\,t_1t_2^2t_3+555061500\,t_1t_2^2u_4-182800800\,t_1t_2u_6-60933600\,t_1u_3t_5+61673500\,t_1u_3^2u_4+123347000\,t_1u_3^2t_3-60933600\,t_1u_3u_6+1656000000\,t_1^8-231629625\,u_2^6t_2+5015990500\,u_2^5t_1^3+143164000\,u_2^5t_3+15545754550\,u_2^3t_1^5-16370570\,u_2^4u_5-81852850\,u_2^4t_4-48815375\,u_3u_2^6+63803050\,u_2^4u_3^2+42591750\,u_2^3u_6+14904553000\,u_2^2t_1^6-2890600\,u_2^2u_7+7898200000\,u_2t_1^7+16406200\,t_1t_7+8203100\,t_1u_8+127053000\,t_1^2u_4^2-81928000\,t_1^2u_3^3-80936800\,t_1^2t_6+508212000\,t_1^2t_3^2-2212056000\,t_1^2t_2^3+738088800\,t_1^4u_3^2-6215200000\,t_1^6t_2+1282403100\,t_1^5u_4+2548400000\,t_1^5t_3+6825600000\,t_1^4t_2^2-187513600\,t_1^4u_5-937568000\,t_1^4t_4+301864000\,t_1^3u_6-1971112000\,u_3t_1^6+301864000\,t_1^3t_5-11562400\,t_1^2u_7-2303456400\,u_2t_1t_2^3-20693288000\,u_2t_1^5t_2+3443707550\,u_2t_1^4u_4+6879212000\,u_2t_1^4t_3+14357193500\,u_2t_1^3t_2^2-9301940\,u_2u_4u_5-46509700\,u_2u_4t_4-18603880\,u_2t_3u_5-93019400\,u_2t_3t_4-91400400\,u_2t_2t_5+564779000\,u_2t_2^2t_3+282389500\,u_2t_2^2u_4-91400400\,u_2t_2u_6-30466800\,u_2u_3t_5+35695500\,u_2u_3^2u_4+71391000\,u_2u_3^2t_3-30466800\,u_2u_3u_6-393631080\,u_2t_1^3u_5-1968155400\,u_2t_1^3t_4+462513500\,u_2t_1^2u_6-6743591500\,u_2u_3t_1^5+462513500\,u_2t_1^2t_5-11562400\,u_2t_1u_7-18603880\,t_1u_4u_5+1719249900\,u_2t_1^3u_3^2-1933233000\,u_2^5t_1t_2-493479000\,u_2^5t_1u_3-7644623500\,u_2^4t_1^2t_2-2239865500\,u_2^4t_1^2u_3+529342050\,u_2^4t_1u_4+1050481000\,u_2^4t_1t_3+315976650\,u_2^4t_2u_3-5817096750\,u_2^3u_3t_1^3-87557500\,u_2^3u_3u_4+482613350\,u_2^3t_1u_3^2-18097610000\,u_2^3t_1^3t_2+1783329500\,u_2^3t_1^2u_4+3566659000\,u_2^3t_1^2t_3+3803529750\,u_2^3t_1t_2^2-103058740\,u_2^3t_1u_5-515293700\,u_2^3t_1t_4-564215000\,u_2^3t_2t_3-282107500\,u_2^3t_2u_4-175115000\,u_2^3u_3t_3-230038200\,u_2^2t_2u_3^2-568247400\,u_2^2t_2^2u_3+50207400\,u_2^2t_2u_5+251037000\,u_2^2t_2t_4+16735800\,u_2^2u_3u_5+83679000\,u_2^2u_3t_4+127053000\,u_2^2u_4t_3+1399693500\,u_2^2t_1^2u_3^2-26404678500\,u_2^2t_1^4t_2+3439606000\,u_2^2t_1^3u_4+6879212000\,u_2^2t_1^3t_3+10747187500\,u_2^2t_1^2t_2^2-290572340\,u_2^2t_1^2u_5-1452861700\,u_2^2t_1^2t_4+226398000\,u_2^2t_1u_6-8726093500\,u_2^2u_3t_1^4+226398000\,u_2^2t_1t_5+200829600\,t_1^2t_2u_5+1004148000\,t_1^2t_2t_4+4489466400\,t_1^4t_2u_3+66943200\,t_1^2u_3u_5+334716000\,t_1^2u_3t_4+508212000\,t_1^2u_4t_3-679323500\,t_1^3u_3u_4-4095376000\,t_1^3t_2t_3-2047688000\,t_1^3t_2u_4-1358647000\,t_1^3u_3t_3-737352000\,t_1^2t_2u_3^2-2212056000\,t_1^2t_2^2u_3+131154550\,u_2t_1u_4^2-112394800\,u_2t_1u_3^3-80936800\,u_2t_1t_6+$$

$$516415100\,u_2t_1t_3^2 + 131154550\,u_2^2t_3^2 + 33814025\,u_2^2u_4^2 + 73632775\,u_2^5u_4 + 4101550\,u_2u_8 - 20234200\,u_2^2t_6 - 598714200\,u_2^2t_2^3 + 586661250\,u_2^4t_2^2 + 42591750\,u_2^3t_5 + 10591367025\,u_2^4t_1^4 + 336407775\,u_2^7t_1 + 1624220250\,u_2^6t_1^2 + 9717500\,u_4u_6 + 19435000\,t_3t_5 + 19435000\,t_3u_6 - 104586000\,t_2t_3^2 + 67302000\,t_2^2u_3^2 - 20606400\,t_2^2u_5 - 103032000\,t_2^2t_4 + 100953000\,t_2^4 - 26146500\,t_2u_4^2 + 14956000\,t_2u_3^3 + 18984000\,t_2t_6 - 13737600\,t_2u_3u_5 - 68688000\,t_2u_3t_4 - 104586000\,t_2u_4t_3 - 3071532000\,u_2^2t_1t_2t_3 - 1535766000\,u_2^2t_1t_2u_4 - 1023844000\,u_2^2t_1u_3t_3 + 200829600\,u_2t_1t_2u_5 + 1004148000\,u_2t_1t_2t_4 + 9440374200\,u_2t_1^3t_2u_3 + 185020500\,u_2t_2u_3u_4 + 370041000\,u_2t_2u_3t_3 + 66943200\,u_2t_1u_3u_5 + 334716000\,u_2t_1u_3t_4 + 508212000\,u_2t_1u_4t_3 - 1041275000\,u_2t_1^2u_3u_4 - 6247650000\,u_2t_1^2t_2t_3 - 3123825000\,u_2t_1^2t_2u_4 - 2082550000\,u_2t_1^2u_3t_3 - 828752400\,u_2t_1t_2u_3^2 - 2242522800\,u_2t_1t_2^2u_3 + 370041000\,t_1t_2u_3u_4 + 740082000\,t_1t_2u_3t_3 - 35715400\,u_2^2u_3^3 + 35344325\,u_2^8 + 8203100\,u_2t_7 + 3900000\,t_4u_5 + 9750000\,t_4^2 + 2712000\,t_2u_7 - 8715500\,u_3u_4^2 + 6328000\,u_3t_6 - 34862000\,u_3t_3^2 - 2289600\,u_3^2u_5 - 11448000\,u_3^2t_4 + 904000\,u_3u_7 - 34862000\,u_3u_4t_3 + 390000\,u_5^2 + 9717500\,u_4t_5 - 1953120\,t_8 - 651040\,u_9 + 1029320\,u_3^4)x^9 + O(x^{10}))$$

$$[6]_{UT}(x) = (6\,x + (-15\,u_2 - 30\,t_1)x^2 + (90\,u_2^2 + 360\,u_2t_1 + 360\,t_1^2 - 210\,t_2 - 70\,u_3)x^3 + (-8475\,u_2t_1^2 - 1290\,t_3 + 2880\,u_2t_2 + 960\,u_2u_3 + 5760\,t_1t_2 + 1920\,t_1u_3 - 3915\,u_2^2t_1 - 5220\,t_1^3 - 645\,u_4 - 975\,u_2^3)x^4 + (-136800\,u_2t_1t_2 - 45600\,u_2t_1u_3 + 2520\,u_3^2 + 52470\,u_2^3t_1 + 136710\,u_2^2t_1^2 - 34200\,u_2^2t_2 - 11400\,u_2^2u_3 + 189180\,u_2t_1^3 + 10350\,u_2u_4 + 20700\,u_2t_3 - 136800\,t_1^2t_2 - 45600\,t_1^2u_3 + 20700\,t_1u_4 + 41400\,t_1t_3 + 22680\,t_2^2 + 15120\,t_2u_3 + 84240\,t_1^4 - 1554\,u_5 - 7770\,t_4 + 10440\,u_2^4)x^5 + (-112905\,u_2^5 - 605895\,u_2t_2^2 + 1023770\,u_3t_1^3 - 46650\,t_5 + 2338470\,u_2^2t_1t_2 + 779490\,u_2^2t_1u_3 + 4837320\,u_2t_1^2t_2 + 1612440\,u_2t_1^2u_3 - 539820\,u_2t_1u_4 - 1079640\,u_2t_1t_3 - 388380\,u_2t_2u_3 - 776760\,t_1t_2u_3 + 53460\,u_3u_4 - 4174020\,u_2t_1^4 - 724185\,u_2^4t_1 - 2221965\,u_2^3t_1^2 + 469935\,u_2^3t_2 - 4174020\,u_2^2t_1^3 - 134955\,u_2^2u_4 - 269910\,u_2^2t_3 - 1453680\,t_1^5 + 28764\,u_2u_5 + 143820\,u_2t_4 - 129460\,t_1u_3^2 + 3117960\,t_1^3t_2 - 539820\,t_1^2u_4 - 1079640\,t_1^2t_3 - 1165140\,t_1t_2^2 + 57528\,t_1u_5 + 287640\,t_1t_4 + 320760\,t_2t_3 + 160380\,t_2u_4 + 106920\,u_3t_3 + 125545\,u_3u_2^3 - 88055\,u_2u_3^2 - 46650\,u_6)x^6 + (278640\,u_4^2 + 1298430\,u_2^6 - 120120\,u_3^3 - 279930\,t_6 + 1114560\,t_3^2 - 1081080\,t_2u_3^2 - 3243240\,t_2^2u_3 + 439992\,t_2u_5 + 2199960\,t_2t_4 + 146664\,u_3u_5 + 733320\,u_3t_4 - 3243240\,t_2^3 + 1114560\,u_4t_3 + 4671720\,t_1^2u_3^2 - 70003440\,t_1^4t_2 + 13096080\,t_1^3u_4 + 26192160\,t_1^3t_3 + 42045480\,t_1^2t_2^2 - 1638936\,t_1^2u_5 - 8194680\,t_1^2t_4 + 1959480\,t_1u_6 + 28030320\,t_1^2t_2u_3 + 11001240\,u_2^2t_2^2 + 979740\,u_2t_5 + 118386360\,u_2^2t_1^4 + 9834210\,u_2^5t_1 + 36353610\,u_2^4t_1^2 - 6619410\,u_2^4t_2 + 82012500\,u_2^3t_1^3 + 1915650\,u_2^3u_4 + 3831300\,u_2^3t_3 + 91866960\,u_2t_1^5 - 409734\,u_2^2u_5 - 2048670\,u_2^2t_4 - 39490110\,u_2^3t_1t_2 - 11857050\,u_2^3t_1u_3 - 109493550\,u_2^2t_1^2t_2 - 36497850\,u_2^2t_1^2u_3 + 9822060\,u_2^2t_1u_4 + 19644120\,u_2^2t_1t_3 + 7007580\,u_2^2t_2u_3 - 49334640\,u_2u_3t_1^3 - 1496130\,u_2u_3u_4 + 5651460\,u_2t_1u_3^2 - 148983660\,u_2t_1^3t_2 + 20201400\,u_2t_1^2u_4 + 40402800\,u_2t_1^2t_3 + 43025220\,u_2t_1t_2^2 - 1638936\,u_2t_1u_5 - 8194680\,u_2t_1t_4 - 8976780\,u_2t_2t_3 - 4488390\,u_2t_2u_4 - 2992260\,u_2u_3t_3 - 2992260\,t_1u_3u_4 - 17953560\,t_1t_2t_3 - 8976780\,t_1t_2u_4 - 5984520\,t_1u_3t_3 - 1553310\,u_3u_2^4 + 1657800\,u_2^2u_3^2 + 979740\,u_2u_6 - 22681320\,u_3t_1^4 + 1959480\,t_1t_5 + 26256960\,t_1^6 + 28030320\,u_2t_1t_2u_3 - 39990\,u_7)x^7 + (-1679610\,t_7 - 34603215\,u_2t_3^2 - 26732088\,t_1t_2u_5 - 133660440\,t_1t_2t_4 - 8860755\,u_2u_4^2 - 28077195\,u_2^4u_4 - 839805\,u_8 - 15758115\,u_2^7 - 654586920\,u_2^2t_1t_2u_3 - 1333679040\,u_2t_1^2t_2u_3 + 114593940\,u_2t_1u_3u_4 + 687563640\,u_2t_1t_2t_3 + 343781820\,u_2t_1t_2u_4 + 229187880\,u_2t_1u_3t_3 + 7033560\,u_2u_3^3 + 6578460\,u_2t_6 + 130562280\,u_2t_2^3 - 189601245\,u_2^3t_2^2 - 15151230\,u_2^2t_5 - 2768435985\,u_2^3t_1^4 - 134702415\,u_2^6t_1 - 579951945\,u_2^5t_1^2 + 91801350\,u_2^5t_2 - 1550400840\,u_2^4t_1^3 - 55314585\,u_2^4t_3 - 3205386765\,u_2^2t_1^5 + 6038388\,u_2^3u_5 + 30191940\,u_2^3t_4 + 20499630\,u_3u_2^5 - 24503805\,u_2^3u_3^2 - 15151230\,u_2^2u_6 - 2023182360\,u_2t_1^6 + 939780\,u_2u_7 - 16881705\,t_1u_4^2 + 9121800\,t_1u_3^3 + 13156920\,t_1t_6 - 67526820\,t_1t_3^2 + 246288600\,t_1t_2^3 - 143815320\,t_1^3u_3^2 + 1562515920\,t_1^5t_2 - 308302845\,t_1^4u_4 - 614926080\,t_1^4t_3 - 1309173840\,t_1^3t_2^2 + 660177135\,u_2^4t_1t_2 + 179655765\,u_2^4t_1u_3 + 2210981265\,u_2^3t_1^2t_2 + 696590475\,u_2^3t_1^2u_3 -$$

$$170613225\,u_2^3t_1u_4 - 341226450\,u_2^3t_1t_3 - 111459780\,u_2^3t_2u_3 + 1411640130\,u_2^2u_3t_1^3 + 28648485\,u_2^2u_3u_4 - 139400280\,u_2^2t_1u_3^2 + 4250071620\,u_2^2t_1^3t_2 - 478076265\,u_2^2t_1^2u_4 - 956152530\,u_2^2t_1^2t_3 - 1012182840\,u_2^2t_1t_2^2 + 31708584\,u_2^2t_1u_5 + 158542920\,u_2^2t_1t_4 + 171890910\,u_2^2t_2t_3 + 85945455\,u_2^2t_2u_4 + 57296970\,u_2^2u_3t_3 - 867837240\,t_1^3t_2u_3 + 1507248\,u_4u_5 + 7536240\,u_4t_4 + 3014496\,t_3u_5 + 15072480\,t_3t_4 - 24505200\,t_2u_3u_4 - 49010400\,t_2u_3t_3 + 14835960\,t_2t_5 - 73515600\,t_2^2t_3 - 36757800\,t_2^2u_4 + 14835960\,t_2u_6 + 4945320\,u_3t_5 - 4084200\,u_3^2u_4 - 8168400\,u_3^2t_3 + 4945320\,u_3u_6 - 8910696\,t_1u_3u_5 - 44553480\,t_1u_3t_4 - 67526820\,t_1u_4t_3 - 490205520\,t_1^7 + 42278112\,t_1^3u_5 + 211390560\,t_1^3t_4 - 60604920\,t_1^2u_6 + 500637000\,u_3t_1^5 - 60604920\,t_1^2t_5 + 1879560\,t_1u_7 + 114593940\,t_1^2u_3u_4 + 687563640\,t_1^2t_2t_3 + 343781820\,t_1^2t_2u_4 + 229187880\,t_1^2u_3t_3 + 48466080\,u_2t_2u_3^2 + 125616960\,u_2t_2^2u_3 - 13366044\,u_2t_2u_5 - 66830220\,u_2t_2t_4 - 4455348\,u_2u_3u_5 - 22276740\,u_2u_3t_4 - 33763410\,u_2u_4t_3 - 252582300\,u_2t_1^2u_3^2 + 4250071620\,u_2t_1^4t_2 - 648689490\,u_2t_1^3u_4 - 1297378980\,u_2t_1^3t_3 - 2030821020\,u_2t_1^2t_2^2 + 64924416\,u_2t_1^2u_5 + 324622080\,u_2t_1^2t_4 - 60604920\,u_2t_1u_6 + 1396488900\,u_2u_3t_1^4 - 60604920\,u_2t_1t_5 + 82096200\,t_1t_2u_3^2 + 246288600\,t_1t_2^2u_3)x^8 + (704629730\,u_3t_2^3 + 12881043960\,u_2^3t_1t_2u_3 + 38620263240\,u_2^2t_1^2t_2u_3 - 2796257700\,u_2^2t_1u_3u_4 - 492796260\,t_1u_4t_4 - 197118504\,t_1t_3u_5 - 985592520\,t_1t_3t_4 - 973312920\,t_1t_2t_5 + 5908483440\,t_1t_2^2t_3 + 2954241720\,t_1t_2^2u_4 - 973312920\,t_1t_2u_6 - 324437640\,t_1u_3t_5 + 328249080\,t_1u_3^2u_4 + 656498160\,t_1u_3^2t_3 - 324437640\,t_1u_3u_6 + 9383999040\,t_1^8 - 1276920450\,u_2^6t_2 + 28195575120\,u_2^5t_1^3 + 785763990\,u_2^5t_3 + 87685453890\,u_2^3t_1^5 - 89553942\,u_2^4u_5 - 447769710\,u_2^4t_4 - 270682830\,u_3u_2^6 + 351492130\,u_2^4u_3^2 + 232435980\,u_2^3u_6 + 84115080180\,u_2^2t_1^6 - 15686370\,u_2^2u_7 + 44633073600\,u_2t_1^7 + 87339960\,t_1t_7 + 43669980\,t_1u_8 + 684393300\,t_1^2u_4^2 - 442662320\,t_1^2u_3^3 - 439218360\,t_1^2t_6 + 2737573200\,t_1^2t_2^3 - 11951882640\,t_1^2t_2^3 + 4073578120\,t_1^4u_3^2 - 34804818720\,t_1^6t_2 + 7140747420\,t_1^5u_4 + 14194154880\,t_1^5t_3 + 37635516000\,t_1^4t_2^2 - 1038626064\,t_1^4u_5 - 5193130320\,t_1^4t_4 + 1658504160\,t_1^3u_6 - 11048771520\,u_3t_1^6 + 1658504160\,t_1^3t_5 - 62745480\,t_1^2u_7 - 12438539100\,u_2t_1t_2^3 - 115599486960\,u_2t_1^5t_2 + 19133315190\,u_2t_1^4u_4 + 38222960400\,u_2t_1^4t_3 + 79054525800\,u_2t_1^3t_2^2 - 49279626\,u_2u_4u_5 - 246398130\,u_2u_4t_4 - 98559252\,u_2t_3u_5 - 492796260\,u_2t_3t_4 - 486656460\,u_2t_2t_5 + 3004487640\,u_2t_2^2t_3 + 1502243820\,u_2t_2^2u_4 - 486656460\,u_2t_2u_6 - 162218820\,u_2u_3t_5 + 189247500\,u_2u_3^2u_4 + 378495000\,u_2u_3^2t_3 - 162218820\,u_2u_3u_6 - 2175811380\,u_2t_1^3u_5 - 10879056900\,u_2t_1^3t_4 + 2538002160\,u_2t_1^2u_6 - 37687161600\,u_2u_3t_1^5 + 2538002160\,u_2t_1^2t_5 - 62745480\,u_2t_1u_7 - 98559252\,t_1u_4u_5 + 9466876220\,u_2t_1^3u_3^2 - 10720290060\,u_2^5t_1t_2 - 2744177940\,u_2^5t_1u_3 - 42552542430\,u_2^4t_1^2t_2 - 12492179370\,u_2^4t_1^2u_3 + 2924064990\,u_2^4t_1u_4 + 5804460000\,u_2^4t_1t_3 + 1736082480\,u_2^4t_2u_3 - 32481297000\,u_2^3u_3t_1^3 - 477919980\,u_2^3u_3u_4 + 2660633840\,u_2^3t_1u_3^2 - 100993335300\,u_2^3t_1^3t_2 + 9897936750\,u_2^3t_1^2u_4 + 19795873500\,u_2^3t_1^2t_3 + 20916817920\,u_2^3t_1t_2^2 - 568592658\,u_2^3t_1u_5 - 2842963290\,u_2^3t_1t_4 - 3068503560\,u_2^3t_2t_3 - 1534251780\,u_2^3t_2u_4 - 955839960\,u_2^3u_3t_3 - 1239318450\,u_2^2t_2u_3^2 - 3069080070\,u_2^2t_2^2u_3 + 271363446\,u_2^2t_2u_5 + 1356817230\,u_2^2t_2t_4 + 90454482\,u_2^2u_3u_5 + 452272410\,u_2^2u_3t_4 + 684393300\,u_2^2u_4t_3 + 7705711620\,u_2^2t_1^2u_3^2 - 147431739330\,u_2^2t_1^4t_2 + 19111480200\,u_2^2t_1^3u_4 + 38222960400\,u_2^2t_1^3t_3 + 59199395940\,u_2^2t_1^2t_2^2 - 1607218722\,u_2^2t_1^2u_5 - 8036093610\,u_2^2t_1^2t_4 + 1243878120\,u_2^2t_1u_6 - 48729287070\,u_2^2u_3t_1^4 + 1243878120\,u_2^2t_1t_5 + 1085453784\,t_1^2t_2u_5 + 5427268920\,t_1^2t_2t_4 + 24765906360\,t_1^4t_2u_3 + 361817928\,t_1^2u_3u_5 + 1809089640\,t_1^2u_3t_4 + 2737573200\,t_1^2u_4t_3 - 3711594960\,t_1^3u_3u_4 - 22370061600\,t_1^3t_2t_3 - 11185030800\,t_1^3t_2u_4 - 7423189920\,t_1^3u_3t_3 - 3983960880\,t_1^2t_2u_3^2 - 11951882640\,t_1^2t_2^2u_3 + 706228290\,u_2t_1u_4^2 - 604881140\,u_2t_1u_3^3 - 439218360\,u_2t_1t_6 + 2781243180\,u_2t_1t_3^2 + 706228290\,u_2^2t_3^2 + 182015820\,u_2^2u_4^2 + 403799490\,u_2^5u_4 + 21834990\,u_2u_8 - 109804590\,u_2^2t_6 - 3231298890\,u_2^2t_2^3 + 3206998170\,u_2^4t_2^2 + 232435980\,u_2^3t_5 + 59664098520\,u_2^4t_1^4 + 1877434110\,u_2^7t_1 + 9105153300\,u_2^6t_1^2 +$$

$$50245920\,u_4u_6 + 100491840\,t_3t_5 + 100491840\,t_3u_6 - 544491720\,t_2{t_3}^2 + 353994480\,{t_2}^2{u_3}^2 - 107711856\,{t_2}^2u_5 - 538559280\,{t_2}^2t_4 + 530991720\,{t_2}^4 - 136122930\,t_2{u_4}^2 + 78665440\,t_2{u_3}^3 + 98816760\,t_2t_6 - 71807904\,t_2u_3u_5 - 359039520\,t_2u_3t_4 - 544491720\,t_2u_4t_3 - 16777546200\,{u_2}^2t_1t_2t_3 - 8388773100\,{u_2}^2t_1t_2u_4 - 5592515400\,{u_2}^2t_1u_3t_3 + 1085453784\,u_2t_1t_2u_5 + 5427268920\,u_2t_1t_2t_4 + 51987963660\,u_2{t_1}^3t_2u_3 + 984747240\,u_2t_2u_3u_4 + 1969494480\,u_2t_2u_3t_3 + 361817928\,u_2t_1u_3u_5 + 1809089640\,u_2t_1u_3t_4 + 2737573200\,u_2t_1u_4t_3 - 5683264020\,u_2{t_1}^2u_3u_4 - 34099584120\,u_2{t_1}^2t_2t_3 - 17049792060\,u_2{t_1}^2t_2u_4 - 11366528040\,u_2{t_1}^2u_3t_3 - 4470617340\,u_2t_1t_2{u_3}^2 - 12114101460\,u_2t_1{t_2}^2u_3 + 1969494480\,t_1t_2u_3u_4 + 3938988960\,t_1t_2u_3t_3 - 191774990\,{u_2}^2{u_3}^3 + 195781410\,{u_2}^8 + 43669980\,u_2t_7 + 20139840\,t_4u_5 + 50349600\,{t_4}^2 + 14116680\,t_2u_7 - 45374310\,u_3{u_4}^2 + 32938920\,u_3t_6 - 181497240\,u_3{t_3}^2 - 11967984\,{u_3}^2u_5 - 59839920\,{u_3}^2t_4 + 4705560\,u_3u_7 - 181497240\,u_3u_4t_3 + 2013984\,{u_5}^2 + 50245920\,u_4t_5 - 10077690\,t_8 - 3359230\,u_9 + 5435710\,{u_3}^4)x^9 + O(x^{10}))$$

$$[7]_{UT}(x) = (7\,x + (-21\,u_2 - 42\,t_1)x^2 + (147\,{u_2}^2 + 588\,u_2t_1 + 588\,{t_1}^2 - 336\,t_2 - 112\,u_3)x^3 + (-16191\,u_2{t_1}^2 - 2394\,t_3 + 5439\,u_2t_2 + 1813\,u_2u_3 + 10878\,t_1t_2 + 3626\,t_1u_3 - 7497\,{u_2}^2t_1 - 9996\,{t_1}^3 - 1197\,u_4 - 1848\,{u_2}^3)x^4 + (-303996\,u_2t_1t_2 - 101332\,u_2t_1u_3 + 5488\,{u_3}^2 + 117453\,{u_2}^3t_1 + 306789\,{u_2}^2{t_1}^2 - 75999\,{u_2}^2t_2 - 25333\,{u_2}^2u_3 + 424242\,u_2{t_1}^3 + 22785\,u_2u_4 + 45570\,u_2t_3 - 303996\,{t_1}^2t_2 - 101332\,{t_1}^2u_3 + 45570\,t_1u_4 + 91140\,t_1t_3 + 49392\,{t_2}^2 + 32928\,t_2u_3 + 189336\,{t_1}^4 - 3360\,u_5 - 16800\,t_4 + 23226\,{u_2}^4)x^5 + (-295029\,{u_2}^5 - 1556898\,u_2{t_2}^2 + 2675974\,u_3{t_1}^3 - 117642\,t_5 + 6109173\,{u_2}^2t_1t_2 + 2036391\,{u_2}^2t_1u_3 + 12624801\,u_2{t_1}^2t_2 + 4208267\,u_2{t_1}^2u_3 - 1401204\,u_2t_1u_4 - 2802408\,u_2t_1t_3 - 998718\,u_2t_2u_3 - 1997436\,t_1t_2u_3 + 135485\,u_3u_4 - 10991484\,u_2{t_1}^4 - 1899387\,{u_2}^4t_1 - 5846043\,{u_2}^3{t_1}^2 + 1221423\,{u_2}^3t_2 - 10991484\,{u_2}^2{t_1}^3 - 350301\,{u_2}^2u_4 - 700602\,{u_2}^2t_3 - 3836112\,{t_1}^5 + 73941\,u_2u_5 + 369705\,u_2t_4 - 332906\,t_1{u_3}^2 + 8145564\,{t_1}^3t_2 - 1401204\,{t_1}^2u_4 - 2802408\,{t_1}^2t_3 - 2996154\,t_1{t_2}^2 + 147882\,t_1u_5 + 739410\,t_1t_4 + 812910\,t_2t_3 + 406455\,t_2u_4 + 270970\,u_3t_3 + 328713\,u_3{u_2}^3 - 225274\,u_2{u_3}^2 - 117642\,u_6)x^6 + (821142\,{u_4}^2 + 3977085\,{u_2}^6 - 356720\,{u_3}^3 - 823536\,t_6 + 3284568\,{t_3}^2 - 3210480\,t_2{u_3}^2 - 9631440\,{t_2}^2u_3 + 1300656\,t_2u_5 + 6503280\,t_2t_4 + 433552\,u_3u_5 + 2167760\,u_3t_4 - 9631440\,{t_2}^3 + 3284568\,u_4t_3 + 14150808\,{t_1}^2u_3^2 - 214921056\,{t_1}^4t_2 + 40007520\,{t_1}^3u_4 + 80015040\,{t_1}^3t_3 + 127357272\,{t_1}^2{t_2}^2 - 4974480\,{t_1}^2u_5 - 24872400\,{t_1}^2t_4 + 5882352\,t_1u_6 + 84904848\,{t_1}^2t_2u_3 + 33309906\,{u_2}^2{t_2}^2 + 2941176\,u_2t_5 + 365951502\,{u_2}^2{t_1}^4 + 30258774\,{u_2}^5t_1 + 112107492\,{u_2}^4{t_1}^2 - 20161638\,{u_2}^4t_2 + 253422120\,{u_2}^3{t_1}^3 + 5822082\,{u_2}^3u_4 + 11644164\,{u_2}^3t_3 + 284102784\,u_2{t_1}^5 - 1243620\,{u_2}^2u_5 - 6218100\,{u_2}^2t_4 - 120918672\,{u_2}^3t_1t_2 - 36384656\,{u_2}^3t_1u_3 - 335839728\,{u_2}^2t_1{t_2}^2 - 111946576\,{u_2}^2{t_1}^2u_3 + 30005640\,{u_2}^2t_1u_4 + 60011280\,{u_2}^2t_1t_3 + 21226212\,{u_2}^2t_2u_3 - 151272408\,u_2u_3{t_1}^3 - 4486048\,u_2u_3u_4 + 17091984\,u_2t_1{u_3}^2 - 456758400\,u_2{t_1}^3t_2 + 61653564\,u_2{t_1}^2u_4 + 123307128\,u_2{t_1}^2t_3 + 130298448\,u_2t_1{t_2}^2 - 4974480\,u_2t_1u_5 - 24872400\,u_2t_1t_4 - 26916288\,u_2t_2t_3 - 13458144\,u_2t_2u_4 - 8972096\,u_2u_3t_3 - 8972096\,t_1u_3u_4 - 53832576\,t_1t_2t_3 - 26916288\,t_1t_2u_4 - 17944192\,t_1u_3t_3 - 4759762\,u_3{u_2}^4 + 5008290\,{u_2}^2{u_3}^2 + 2941176\,u_2u_6 - 69679568\,u_3{t_1}^4 + 5882352\,t_1t_5 + 81365088\,{t_1}^6 + 84904848\,u_2t_1t_2u_3 - 117648\,u_7)x^7 + (-5764794\,t_7 - 120823143\,u_2{t_3}^2 - 93612540\,t_1t_2u_5 - 468062700\,t_1t_2t_4 - 30926385\,u_2{u_4}^2 - 99963024\,{u_2}^4u_4 - 2882397\,u_8 - 56547120\,{u_2}^7 - 2333043468\,{u_2}^2t_1t_2u_3 - 4750833318\,u_2{t_1}^2t_2u_3 + 405244896\,u_2t_1u_3u_4 + 2431469376\,u_2t_1t_2t_3 + 1215734688\,u_2t_1t_2u_4 + 810489792\,u_2t_1u_3t_3 + 24516954\,u_2{u_3}^3 + 23059155\,u_2t_6 + 457252614\,u_2{t_2}^3 - 673703205\,{u_2}^3{t_2}^2 - 53765103\,{u_2}^2t_5 - 10044765423\,{u_2}^3{t_1}^4 - 486005814\,{u_2}^6t_1 - 2097661482\,{u_2}^5{t_1}^2 + 328108998\,{u_2}^5t_2 - 5618183004\,{u_2}^4{t_1}^3 - 197043651\,{u_2}^4t_3 - 11633742729\,{u_2}^2{t_1}^5 + 21484491\,{u_2}^3u_5 + 107422455\,{u_2}^3t_4 + 73526264\,u_3{u_2}^5 - 87379005\,{u_2}^3{u_3}^2 - 53765103\,{u_2}^2u_6 - 7348319496\,u_2{t_1}^6 + 3294165\,u_2u_7 - 58970373\,t_1{u_4}^2 + 31975146\,t_1{u_3}^3 + 46118310\,t_1t_6 - 235881492\,t_1{t_3}^2 + 863328942\,t_1{t_2}^3 - 512767850\,{t_1}^3{u_3}^2 + 5636549184\,{t_1}^5t_2 - 1107468621\,{t_1}^4u_4 - 2209172448\,{t_1}^4t_3 - 4666086936\,{t_1}^3{t_2}^2 + 2369288964\,{u_2}^4t_1t_2 + 646389380\,{u_2}^4t_1u_3 + 7957487496\,{u_2}^3{t_1}^2t_2 + 2509122224\,{u_2}^3{t_1}^2u_3 - 611263485\,{u_2}^3t_1u_4 - 1222526970\,{u_2}^3t_1t_3 - 397096245\,{u_2}^3t_2u_3 + 5084447515\,{u_2}^2u_3{t_1}^3 +$$

$$101311224\,{u_2}^2u_3u_4 - 496370784\,{u_2}^2t_1{u_3}^2 + 15307107648\,{u_2}^2{t_1}^3t_2 - 1715849709\,{u_2}^2{t_1}^2u_4 - 3431699418\,{u_2}^2{t_1}^2t_3 - 3607095408\,{u_2}^2t_1t_2^2 + 113370075\,{u_2}^2t_1u_5 + 566850375\,{u_2}^2t_1t_4 + 607867344\,{u_2}^2t_2t_3 + 303933672\,{u_2}^2t_2u_4 + 202622448\,{u_2}^2u_3t_3 - 3093665862\,{t_1}^3t_2u_3 + 5178957\,u_4u_5 + 25894785\,u_4t_4 + 10357914\,t_3u_5 + 51789570\,t_3t_4 - 84746382\,t_2u_3u_4 - 169492764\,t_2u_3t_3 + 51176286\,t_2t_5 - 254239146\,{t_2}^2t_3 - 127119573\,{t_2}^2u_4 + 51176286\,t_2u_6 + 17058762\,u_3t_5 - 14124397\,{u_3}^2u_4 - 28248794\,{u_3}^2t_3 + 17058762\,u_3u_6 - 31204180\,t_1u_3u_5 - 156020900\,t_1u_3t_4 - 235881492\,t_1u_4t_3 - 1783923792\,{t_1}^7 + 151160100\,{t_1}^3u_5 + 755800500\,{t_1}^3t_4 - 215060412\,{t_1}^2u_6 + 1807162924\,u_3{t_1}^5 - 215060412\,{t_1}^2t_5 + 6588330\,t_1u_7 + 405244896\,{t_1}^2u_3u_4 + 2431469376\,{t_1}^2t_2t_3 + 1215734688\,{t_1}^2t_2u_4 + 810489792\,{t_1}^2u_3t_3 + 169476300\,u_2t_2{u_3}^2 + 440193852\,u_2{t_2}^2u_3 - 46806270\,u_2t_2u_5 - 234031350\,u_2{t_2}t_4 - 15602090\,u_2u_3u_5 - 78010450\,u_2u_3t_4 - 117940746\,u_2u_4t_3 - 899335759\,u_2{t_1}^2{u_3}^2 + 15307107648\,u_2{t_1}^4t_2 - 2327113194\,u_2{t_1}^3u_4 - 4654226388\,u_2{t_1}^3t_3 - 7233780183\,u_2{t_1}^2{t_2}^2 + 231919107\,u_2{t_1}^2u_5 + 1159595535\,u_2{t_1}^2t_4 - 215060412\,u_2t_1u_6 + 5030682412\,u_2u_3{t_1}^4 - 215060412\,u_2t_1t_5 + 287776314\,t_1t_2{u_3}^2 + 863328942\,t_1{t_2}^2u_3)x^8 + (2854248320\,u_3{t_2}^3 + 53952778782\,{u_2}^3t_1t_2u_3 + 161770709646\,{u_2}^2{t_1}^2t_2u_3 - 11645402916\,{u_2}^2t_1u_3u_4 - 2009375340\,t_1u_4t_4 - 803750136\,t_1t_3u_5 - 4018750680\,t_1t_3t_4 - 3981196296\,t_1t_2t_5 + 24150057876\,t_1t_2^2t_3 + 12075028938\,t_1t_2^2u_4 - 3981196296\,t_1t_2u_6 - 1327065432\,t_1u_3t_5 + 1341669882\,t_1{u_3}^2u_4 + 2683339764\,t_1u_3^2t_3 - 1327065432\,t_1u_3u_6 + 40106073504\,{t_1}^8 - 5353114221\,{u_2}^6t_2 + 11984020473 6\,{u_2}^5{t_1}^3 + 3284850975\,{u_2}^5t_3 + 373571319177\,{u_2}^3{t_1}^5 - 373574628\,{u_2}^4u_5 - 1867873140\,{u_2}^4t_4 - 1139032685\,u_3{u_2}^6 + 1472522618\,{u_2}^4{u_3}^2 + 968008083\,{u_2}^3u_6 + 358495921602\,{u_2}^2{t_1}^6 - 65059827\,{u_2}^2u_7 + 190396380384\,u_2{t_1}^7 + 357417564\,t_1t_7 + 178708782\,t_1u_8 + 2823191154\,{t_1}^2{u_4}^2 - 1828395800\,{t_1}^2{u_3}^3 - 1821675156\,{t_1}^2t_6 + 11292764616\,{t_1}^2{t_3}^2 - 49366686600\,{t_1}^2t_2^3 + 17084944856\,{t_1}^4{u_3}^2 - 147506952432\,{t_1}^6t_2 + 30150795150\,{t_1}^5u_4 + 59944172736\,{t_1}^5t_3 + 157745700000\,{t_1}^4{t_2}^2 - 4369693776\,{t_1}^4u_5 - 21848468880\,{t_1}^4t_4 + 6938423520\,{t_1}^3u_6 - 46856176304\,u_3{t_1}^6 + 6938423520\,{t_1}^3t_5 - 260239308\,{t_1}^2u_7 - 51357284748\,u_2t_1{t_2}^3 - 489102468960\,u_2{t_1}^5t_2 + 80665952619\,u_2{t_1}^4u_4 + 161153196456\,u_2{t_1}^4t_3 + 331035640698\,u_2{t_1}^3{t_2}^2 - 200937534\,u_2u_4u_5 - 1004687670\,u_2u_4t_4 - 401875068\,u_2t_3u_5 - 2009375340\,u_2t_3t_4 - 1990598148\,u_2t_2t_5 + 12276439224\,u_2{t_2}^2t_3 + 6138219612\,u_2{t_2}^2u_4 - 1990598148\,u_2t_2u_6 - 663532716\,u_2u_3t_5 + 771540084\,u_2{u_3}^2u_4 + 1543080168\,u_2{u_3}^2t_3 - 663532716\,u_2u_3u_6 - 9141262620\,u_2{t_1}^3u_5 - 45706313100\,u_2{t_1}^3t_4 + 10609045566\,u_2{t_1}^2u_6 - 159497807798\,u_2u_3{t_1}^5 + 10609045566\,u_2{t_1}^2t_5 - 260239308\,u_2t_1u_7 - 401875068\,t_1u_4u_5 + 39644304070\,u_2{t_1}^3{u_3}^2 - 45125657955\,{u_2}^5t_1t_2 - 11572674225\,{u_2}^5t_1u_3 - 179594547552\,{u_2}^4{t_1}^2t_2 - 52792152140\,{u_2}^4{t_1}^2u_3 + 12278822535\,{u_2}^4t_1u_4 + 24378936288\,{u_2}^4t_1t_3 + 7258176891\,{u_2}^4t_2u_3 - 137383180179\,{u_2}^3u_3{t_1}^3 - 1989250109\,{u_2}^3u_3u_4 + 11151683473\,{u_2}^3{t_1}u_3^2 - 426994395660\,{u_2}^3{t_1}^3t_2 + 41699894691\,{u_2}^3{t_1}^2u_4 + 83399789382\,{u_2}^3{t_1}^2t_3 + 87512273289\,{u_2}^3t_1t_2^2 - 2385784422\,{u_2}^3t_1u_5 - 11928922110\,{u_2}^3t_1t_4 - 12741141798\,{u_2}^3t_2t_3 - 6370570899\,{u_2}^3t_2u_4 - 3978500218\,{u_2}^3u_3t_3 - 5109189624\,{u_2}^2t_2u_3^2 - 12673438008\,{u_2}^2t_2^2u_3 + 1121806539\,{u_2}^2t_2u_5 + 5609032695\,{u_2}^2t_2t_4 + 373935513\,{u_2}^2u_3u_5 + 1869677565\,{u_2}^2u_3t_4 + 2823191154\,{u_2}^2u_4t_3 + 32266307724\,{u_2}^2{t_1}^2u_3^2 - 623571358557\,{u_2}^2{t_1}^4t_2 + 80576598228\,{u_2}^2{t_1}^3u_4 + 161153196456\,{u_2}^2{t_1}^3t_3 + 247960587252\,{u_2}^2{t_1}^2t_2^2 - 6755478198\,{u_2}^2{t_1}^2u_5 - 33777390990\,{u_2}^2{t_1}^2t_4 + 5203817640\,{u_2}^2t_1u_6 - 206122513639\,{u_2}^2u_3{t_1}^4 + 5203817640\,{u_2}^2t_1t_5 + 4487226156\,{t_1}^2t_2u_5 + 22436130780\,{t_1}^2t_2t_4 + 103836734568\,{t_1}^4t_2u_3 + 1495742052\,{t_1}^2u_3u_5 + 7478710260\,{t_1}^2u_3t_4 + 11292764616\,{t_1}^2u_4t_3 - 15460067126\,{t_1}^3u_3u_4 - 93163223328\,{t_1}^3t_2t_3 - 46581611664\,{t_1}^3t_2u_4 - 30920134252\,{t_1}^3u_3t_3 - 16455562200\,{t_1}^2t_2{u_3}^2 - 49366686600\,{t_1}^2t_2^2u_3 + 2912545545\,u_2t_1{u_4}^2 - 2491928516\,u_2t_1{u_3}^3 - 1821675156\,u_2t_1t_6 + 11471473398\,u_2t_1t_3^2 + 2912545545\,u_2^2t_3^2 + 750474984\,u_2^2u_4^2 + 1687102683\,u_2^5u_4 + 89354391\,u_2u_8 - 455418789\,u_2^2t_6 - 13336970724\,u_2^2t_2^3 + 13361867526\,u_2^4t_2^2 + 968008083\,u_2^3t_5 +$$

$$253967953638\,{u_2}^4{t_1}^4+7940243073\,{u_2}^7t_1+38627184414\,{u_2}^6{t_1}^2+201410286\,u_4u_6+402820572\,t_3t_5+$$
$$402820572\,t_3u_6-2191477764\,t_2{t_3}^2+1433849760\,{t_2}^2{u_3}^2-434649600\,{t_2}^2u_5-2173248000\,{t_2}^2t_4+$$
$$2150774640\,{t_2}^4-547869441\,t_2{u_4}^2+318633280\,t_2{u_3}^3+397770240\,t_2t_6-289766400\,t_2u_3u_5-$$
$$1448832000\,t_2u_3t_4-2191477764\,t_2u_4t_3-69872417496\,{u_2}^2t_1t_2t_3-34936208748\,{u_2}^2t_1t_2u_4-$$
$$23290805832\,{u_2}^2t_1u_3t_3+4487226156\,u_2t_1t_2u_5+22436130780\,u_2t_1t_2t_4+217714086576\,u_2{t_1}^3t_2u_3+$$
$$4025009646\,u_2t_2u_3u_4+8050019292\,u_2t_2u_3t_3+1495742052\,u_2t_1u_3u_5+7478710260\,u_2t_1u_3t_4+$$
$$11292764616\,u_2t_1u_4t_3-23656052126\,u_2{t_1}^2u_3u_4-141936312756\,u_2{t_1}^2t_2t_3-70968156378\,u_2{t_1}^2t_2u_4-$$
$$47312104252\,u_2{t_1}^2u_3t_3-18446160348\,u_2t_1t_2{u_3}^2-50030219316\,u_2t_1{t_2}^2u_3+8050019292\,t_1t_2u_3u_4+$$
$$16100038584\,t_1t_2u_3t_3-788865308\,{u_2}^2{u_3}^3+823766244\,{u_2}^8+178708782\,u_2t_7+80673600\,t_4u_5+$$
$$201684000\,{t_4}^2+56824320\,t_2u_7-182623147\,u_3{u_4}^2+132590080\,u_3t_6-730492588\,u_3{t_3}^2-$$
$$48294400\,{u_3}^2u_5-241472000\,{u_3}^2t_4+18941440\,u_3u_7-730492588\,u_3u_4t_3+8067360\,{u_5}^2+$$
$$201410286\,u_4t_5-40353600\,t_8-13451200\,u_9+22069040\,{u_3}^4)x^9+O(x^{10}))$$

$$[8]_{UT}(x)=(8\,x+(-28\,u_2-56\,t_1)x^2+(224\,{u_2}^2+896\,u_2t_1+896\,{t_1}^2-504\,t_2-168\,u_3)x^3+$$
$$(-28252\,u_2{t_1}^2-4088\,t_3+9408\,u_2t_2+3136\,u_2u_3+18816\,t_1t_2+6272\,t_1u_3-13104\,{u_2}^2t_1-$$
$$17472\,{t_1}^3-2044\,u_4-3206\,{u_2}^3)x^4+(-604800\,u_2t_1t_2-201600\,u_2t_1u_3+10752\,{u_3}^2+234976\,{u_2}^3t_1+$$
$$614880\,{u_2}^2{t_1}^2-151200\,{u_2}^2t_2-50400\,{u_2}^2u_3+849856\,u_2{t_1}^3+45024\,u_2u_4+90048\,u_2t_3-$$
$$604800\,{t_1}^2t_2-201600\,{t_1}^2u_3+90048\,t_1u_4+180096\,t_1t_3+96768\,{t_2}^2+64512\,t_2u_3+379904\,{t_1}^4-$$
$$6552\,u_5-32760\,t_4+46256\,{u_2}^4)x^5+(-674856\,{u_2}^5-3515932\,u_2{t_2}^2+6121304\,u_3{t_1}^3-262136\,t_5+$$
$$13969536\,{u_2}^2t_1t_2+4656512\,{u_2}^2t_1u_3+28847616\,u_2{t_1}^2t_2+9615872\,u_2{t_1}^2u_3-3189312\,u_2t_1u_4-$$
$$6378624\,u_2t_1t_3-2256576\,u_2t_2u_3-4513152\,t_1t_2u_3+302848\,u_3u_4-25284672\,u_2{t_1}^4-4356576\,{u_2}^4t_1-$$
$$13439664\,{u_2}^3{t_1}^2+2782528\,{u_2}^3t_2-25284672\,{u_2}^2{t_1}^3-797328\,{u_2}^2u_4-1594656\,{u_2}^2t_3-8838144\,{t_1}^5+$$
$$167104\,u_2u_5+835520\,u_2t_4-752192\,t_1{u_3}^2+18626048\,{t_1}^3t_2-3189312\,{t_1}^2u_4-6378624\,{t_1}^2t_3-$$
$$6769728\,t_1{t_2}^2+334208\,t_1u_5+1671040\,t_1t_4+1817088\,t_2t_3+908544\,t_2u_4+605696\,u_3t_3+$$
$$752752\,u_3{u_2}^3-507164\,u_2{u_3}^2-262136\,u_6)x^6+(2093056\,{u_4}^2+10433472\,{u_2}^6-913920\,{u_3}^3-$$
$$2097144\,t_6+8372224\,{t_3}^2-8225280\,t_2{u_3}^2-24675840\,{t_2}^2u_3+3322368\,t_2u_5+16611840\,t_2t_4+$$
$$1107456\,u_3u_5+5537280\,u_3t_4-24675840\,{t_2}^3+8372224\,u_4t_3+36804096\,{t_1}^2{u_3}^2-564687872\,{t_1}^4t_2+$$
$$104745984\,{t_1}^3u_4+209491968\,{t_1}^3t_3+331236864\,{t_1}^2{t_2}^2-12962432\,{t_1}^2u_5-64812160\,{t_1}^2t_4+$$
$$15204224\,t_1u_6+220824576\,{t_1}^2t_2u_3+86610272\,{u_2}^2{t_2}^2+7602112\,u_2t_5+966472192\,{u_2}^2{t_1}^4+$$
$$79642752\,{u_2}^5t_1+295560832\,{u_2}^4{t_1}^2-52664528\,{u_2}^4t_2+669105920\,{u_2}^3{t_1}^3+15186304\,{u_2}^3u_4+$$
$$30372608\,{u_2}^3t_3+750554112\,u_2{t_1}^5-3240608\,{u_2}^2u_5-16203040\,{u_2}^2t_4-317087008\,{u_2}^3t_1t_2-$$
$$95559520\,{u_2}^3t_1u_3-881774880\,{u_2}^2{t_1}^2t_2-293924960\,{u_2}^2{t_1}^2u_3+78559488\,{u_2}^2t_1u_4+$$
$$157118976\,{u_2}^2t_1t_3+55206144\,{u_2}^2t_2u_3-397086592\,u_2u_3{t_1}^3-11581024\,u_2u_3u_4+$$
$$44406208\,u_2t_1{u_3}^2-1198861888\,u_2{t_1}^3t_2+161305088\,u_2{t_1}^2u_4+322610176\,u_2{t_1}^2t_3+$$
$$338838976\,u_2t_1{t_2}^2-12962432\,u_2t_1u_5-64812160\,u_2t_1t_4-69486144\,u_2t_2t_3-34743072\,u_2t_2u_4-$$
$$23162048\,u_2u_3t_3-23162048\,t_1u_3u_4-138972288\,t_1t_2t_3-69486144\,t_1t_2u_4-46324096\,t_1u_3t_3-$$
$$12486768\,u_3{u_2}^4+13002080\,{u_2}^2{u_3}^2+7602112\,u_2u_6-183161216\,u_3{t_1}^4+15204224\,t_1t_5+$$
$$215269376\,{t_1}^6+220824576\,u_2t_1t_2u_3-299592\,u_7)x^7+(-16777208\,t_7-356048924\,u_2{t_3}^2-$$
$$276415104\,t_1t_2u_5-1382075520\,t_1t_2t_4-91109382\,u_2{u_4}^2-298896934\,{u_2}^4u_4-8388604\,u_8-$$
$$170065329\,{u_2}^7-6978832896\,{u_2}^2t_1t_2u_3-14205499392\,u_2{t_1}^2t_2u_3+1205322496\,u_2t_1u_3u_4+$$
$$7231934976\,u_2t_1t_2t_3+3615967488\,u_2t_1t_2u_4+2410644992\,u_2t_1u_3t_3+72128000\,u_2{u_3}^3+$$
$$68157376\,u_2t_6+1349773824\,u_2{t_2}^3-2010766352\,{u_2}^3{t_2}^2-160365856\,{u_2}^2t_5-30453864966\,{u_2}^3{t_1}^4-$$
$$1467446596\,{u_2}^6t_1-6345186344\,{u_2}^5{t_1}^2+983688608\,{u_2}^5t_2-17017508368\,{u_2}^4{t_1}^3-589405264\,{u_2}^4t_3-$$
$$35279296528\,{u_2}^2{t_1}^5+64212736\,{u_2}^3u_5+321063680\,{u_2}^3t_4+220985632\,u_3{u_2}^5-261487632\,{u_2}^3{u_3}^2-$$
$$160365856\,{u_2}^2u_6-22295443968\,u_2{t_1}^6+9736768\,u_2u_7-173830160\,t_1{u_4}^2+94449152\,t_1{u_3}^3+$$
$$136314752\,t_1t_6-695320640\,t_1{t_3}^2+2550127104\,t_1{t_2}^3-1534249472\,{t_1}^3{u_3}^2+17014165504\,{t_1}^5t_2-$$

$$3332989436\,{t_1}^4u_4-6649201664\,{t_1}^4t_3-13957665792\,{t_1}^3{t_2}^2+7124910464\,{u_2}^4t_1t_2+$$
$$1947327872\,{u_2}^4t_1u_3+23979682496\,{u_2}^3{t_1}^2t_2+7565585216\,{u_2}^3{t_1}^2u_3-1836130576\,{u_2}^3t_1u_4-$$
$$3672261152\,{u_2}^3t_1t_3-1187441920\,{u_2}^3t_2u_3+15330338464\,{u_2}^2u_3{t_1}^3+301330624\,{u_2}^2u_3u_4-$$
$$1483870528\,{u_2}^2t_1{u_3}^2+46151381248\,{u_2}^2{t_1}^3t_2-5160731408\,{u_2}^2{t_1}^2u_4-10321462816\,{u_2}^2{t_1}^2t_3-$$
$$10788981056\,{u_2}^2t_1{t_2}^2+340032000\,{u_2}^2t_1u_5+1700160000\,{u_2}^2t_1t_4+1807983744\,{u_2}^2t_2t_3+$$
$$903991872\,{u_2}^2t_2u_4+602661248\,{u_2}^2u_3t_3-9255303680\,{t_1}^3t_2u_3+15081472\,u_4u_5+75407360\,u_4t_4+$$
$$30162944\,t_3u_5+150814720\,t_3t_4-247833600\,t_2u_3u_4-495667200\,t_2u_3t_3+149420544\,t_2t_5-$$
$$743500800\,{t_2}^2t_3-371750400\,{t_2}^2u_4+149420544\,t_2u_6+49806848\,u_3t_5-41305600\,{u_3}^2u_4-$$
$$82611200\,{u_3}^2t_3+49806848\,u_3u_6-92138368\,t_1u_3u_5-460691840\,t_1u_3t_4-695320640\,t_1u_4t_3-$$
$$5420240896\,{t_1}^7+453376000\,{t_1}^3u_5+2266880000\,{t_1}^3t_4-641463424\,{t_1}^2u_6+5457567360\,u_3{t_1}^5-$$
$$641463424\,{t_1}^2t_5+19473536\,t_1u_7+1205322496\,{t_1}^2u_3u_4+7231934976\,{t_1}^2t_2t_3+$$
$$3615967488\,{t_1}^2t_2u_4+2410644992\,{t_1}^2u_3t_3+499731456\,u_2t_2{u_3}^2+1299966976\,u_2{t_2}^2u_3-$$
$$138207552\,u_2t_2u_5-691037760\,u_2t_2t_4-46069184\,u_2u_3u_5-230345920\,u_2u_3t_4-347660320\,u_2u_4t_3-$$
$$2688314944\,u_2{t_1}^2{u_3}^2+46151381248\,u_2{t_1}^4t_2-6996861984\,u_2{t_1}^3u_4-13993723968\,u_2{t_1}^3t_3-$$
$$21628980800\,u_2{t_1}^2{t_2}^2+695145472\,u_2{t_1}^2u_5+3475727360\,u_2{t_1}^2t_4-641463424\,u_2t_1u_6+$$
$$15169972608\,u_2u_3{t_1}^4-641463424\,u_2t_1t_5+850042368\,t_1t_2{u_3}^2+2550127104\,t_1{t_2}^2u_3)x^8+$$
$$(9564323160\,u_3{t_2}^3+185441143552\,{u_2}^3t_1t_2u_3+556048743936\,{u_2}^2{t_1}^2t_2u_3-39861683456\,{u_2}^2t_1u_3u_4-$$
$$6772351040\,t_1u_4t_4-2708940416\,t_1t_3u_5-13544702080\,t_1t_3t_4-13446335616\,t_1t_2t_5+$$
$$81502073856\,t_1{t_2}^2t_3+40751036928\,t_1{t_2}^2u_4-13446335616\,t_1t_2u_6-4482111872\,t_1u_3t_5+$$
$$4527892992\,t_1u_3^2u_4+9055785984\,t_1u_3^2t_3-4482111872\,t_1u_3u_6+139947343872\,{t_1}^8-$$
$$18414574752\,{u_2}^6t_2+416495484160\,{u_2}^5{t_1}^3+11278132096\,{u_2}^5t_3+1300552397536\,{u_2}^3{t_1}^5-$$
$$1280700176\,{u_2}^4u_5-6403500880\,{u_2}^4t_4-3928501472\,u_3{u_2}^6+5062322048\,{u_2}^4{u_3}^2+$$
$$3314535168\,{u_2}^3u_6+1248413410048\,{u_2}^2{t_1}^6-222073312\,{u_2}^2u_7+663463370752\,{u_2}t_1^7+$$
$$1207959424\,t_1t_7+603979712\,t_1u_8+9597014784\,{t_1}^2{u_4}^2-6218347520\,{t_1}^2{u_3}^3-6218052736\,{t_1}^2t_6+$$
$$38388059136\,{t_1}^2{t_3}^2-167895383040\,{t_1}^2t_2^3+58779858816\,{t_1}^4{u_3}^2-511496667136\,{t_1}^6t_2+$$
$$104277974976\,{t_1}^5u_4+207347990528\,{t_1}^5t_3+542465064960\,{t_1}^4{t_2}^2-15073321984\,{t_1}^4u_5-$$
$$75366609920\,{t_1}^4t_4+23835105280\,{t_1}^3u_6-162553853952\,u_3{t_1}^6+23835105280\,{t_1}^3t_5-$$
$$888293248\,{t_1}^2u_7-174618550848\,u_2t_1{t_2}^3-1693936735232\,u_2{t_1}^5t_2+278681007584\,u_2{t_1}^4u_4+$$
$$556758035456\,u_2{t_1}^4t_3+1137598719488\,u_2{t_1}^3{t_2}^2-677235104\,u_2u_4u_5-3386175520\,u_2u_4t_4-$$
$$1354470208\,u_2t_3u_5-6772351040\,u_2t_3t_4-6723167808\,u_2t_2t_5+41421330944\,u_2{t_2}^2t_3+$$
$$20710665472\,u_2{t_2}^2u_4-6723167808\,u_2t_2u_6-2241055936\,u_2u_3t_5+2599093504\,u_2{u_3}^2u_4+$$
$$5198187008\,u_2{u_3}^2t_3-2241055936\,u_2u_3u_6-31501114176\,u_2{t_1}^3u_5-157505570880\,u_2{t_1}^3t_4+$$
$$36422951936\,u_2{t_1}^2u_6-552504594432\,u_2u_3{t_1}^5+36422951936\,u_2{t_1}^2t_5-888293248\,u_2t_1u_7-$$
$$1354470208\,t_1u_4u_5+136246219200\,u_2{t_1}^3{u_3}^2-155698150272\,{u_2}^5t_1t_2-39981830784\,{u_2}^5t_1u_3-$$
$$620872091392\,{u_2}^4{t_1}^2t_2-182675395840\,{u_2}^4{t_1}^2u_3+42297128160\,{u_2}^4t_1u_4+83990276608\,{u_2}^4t_1t_3+$$
$$24912438656\,{u_2}^4t_2u_3-475688446464\,{u_2}^3u_3{t_1}^3-6806109184\,{u_2}^3u_3u_4+38350984448\,{u_2}^3t_1{u_3}^2-$$
$$1478050085120\,{u_2}^3{t_1}^3t_2+143988016256\,{u_2}^3{t_1}^2u_4+287976032512\,{u_2}^3{t_1}^2t_3+$$
$$300546215424\,{u_2}^3t_1{t_2}^2-8213896096\,{u_2}^3t_1u_5-41069480480\,{u_2}^3t_1t_4-43517831168\,{u_2}^3t_2t_3-$$
$$21758915584\,{u_2}^3t_2u_4-13612218368\,{u_2}^3u_3t_3-17352865824\,{u_2}^2t_2{u_3}^2-43094373728\,{u_2}^2{t_2}^2u_3+$$
$$3818941056\,{u_2}^2t_2u_5+19094705280\,{u_2}^2t_2t_4+1272980352\,{u_2}^2u_3u_5+6364901760\,{u_2}^2u_3t_4+$$
$$9597014784\,{u_2}^2u_4t_3+110886266624\,{u_2}^2{t_1}^2{u_3}^2-2159110676352\,{u_2}^2{t_1}^4t_2+278379017728\,{u_2}^2{t_1}^3u_4+$$
$$556758035456\,{u_2}^2{t_1}^3t_3+852284591872\,{u_2}^2{t_1}^2{t_2}^2-23287218080\,{u_2}^2{t_1}^2u_5-$$
$$116436090400\,{u_2}^2{t_1}^2t_4+17876328960\,{u_2}^2t_1u_6-713744782464\,{u_2}^2u_3{t_1}^4+17876328960\,{u_2}^2t_1t_5+$$
$$15275764224\,{t_1}^2t_2u_5+76378821120\,{t_1}^2t_2t_4+357161264768\,{t_1}^4t_2u_3+5091921408\,{t_1}^2u_3u_5+$$
$$25459607040\,{t_1}^2u_3t_4+38388059136\,{t_1}^2u_4t_3-52925479936\,{t_1}^3u_3u_4-318893467648\,{t_1}^3t_2t_3-$$

$$159446733824\,t_1{}^3t_2u_4 - 105850959872\,t_1{}^3u_3t_3 - 55965127680\,t_1{}^2t_2u_3{}^2 - 167895383040\,t_1{}^2t_2{}^2u_3 + 9899004640\,u_2t_1u_4{}^2 - 8459403456\,u_2t_1u_3{}^3 - 6218052736\,u_2t_1t_6 + 38992038848\,u_2t_1t_3{}^2 + 9899004640\,u_2{}^2t_3{}^2 + 2550248624\,u_2{}^2u_4{}^2 + 5790060976\,u_2{}^5u_4 + 301989856\,u_2u_8 - 1554513184\,u_2{}^2t_6 - 45335429664\,u_2{}^2t_2{}^3 + 45749093376\,u_2{}^4t_2{}^2 + 3314535168\,u_2{}^3t_5 + 883601881008\,u_2{}^4t_1{}^4 + 27496019376\,u_2{}^7t_1 + 134061529728\,u_2{}^6t_1{}^2 + 670294016\,u_4u_6 + 1340588032\,t_3t_5 + 1340588032\,t_3u_6 - 7312295424\,t_2t_3{}^2 + 4804531200\,t_2{}^2u_3{}^2 - 1452874752\,t_2{}^2u_5 - 7264373760\,t_2{}^2t_4 + 7206796800\,t_2{}^4 - 1828073856\,t_2u_4{}^2 + 1067673600\,t_2u_3{}^3 + 1327495680\,t_2t_6 - 968583168\,t_2u_3u_5 - 4842915840\,t_2u_3t_4 - 7312295424\,t_2u_4t_3 - 239170100736\,u_2{}^2t_1t_2t_3 - 119585050368\,u_2{}^2t_1t_2u_4 - 79723366912\,u_2{}^2t_1u_3t_3 + 15275764224\,u_2t_1t_2u_5 + 76378821120\,u_2t_1t_2t_4 + 748213055296\,u_2t_1{}^3t_2u_3 + 13583678976\,u_2t_2u_3u_4 + 27167357952\,u_2t_2u_3t_3 + 5091921408\,u_2t_1u_3u_5 + 25459607040\,u_2t_1u_3t_4 + 38388059136\,u_2t_1u_4t_3 - 80942082816\,u_2t_1{}^2u_3u_4 - 485652496896\,u_2t_1{}^2t_2t_3 - 242826248448\,u_2t_1{}^2t_2u_4 - 161884165632\,u_2t_1{}^2u_3t_3 - 62688295488\,u_2t_1t_2u_3{}^2 - 170136438976\,u_2t_1t_2{}^2u_3 + 27167357952\,t_1t_2u_3u_4 + 54334715904\,t_1t_2u_3t_3 - 2675114848\,u_2{}^2u_3{}^3 + 2841886376\,u_2{}^8 + 603979712\,u_2t_7 + 268369920\,t_4u_5 + 670924800\,t_4{}^2 + 189642240\,t_2u_7 - 609357952\,u_3u_4{}^2 + 442498560\,u_3t_6 - 2437431808\,u_3t_3{}^2 - 161430528\,u_3{}^2u_5 - 807152640\,u_3{}^2t_4 + 63214080\,u_3u_7 - 2437431808\,u_3u_4t_3 + 26836992\,u_5{}^2 + 670294016\,u_4t_5 - 134217720\,t_8 - 44739240\,u_9 + 74059720\,u_3{}^4)x^9 + O(x^{10}))$$

$$[9]_{UT}(x) = (9\,x + (-36\,u_2 - 72\,t_1)x^2 + (-720\,t_2 - 240\,u_3 + 324\,u_2{}^2 + 1296\,u_2t_1 + 1296\,t_1{}^2)x^3 + (-46044\,u_2t_1{}^2 - 6552\,t_3 + 15228\,u_2t_2 + 5076\,u_2u_3 + 30456\,t_1t_2 + 10152\,t_1u_3 - 21384\,u_2{}^2t_1 - 28512\,t_1{}^3 - 3276\,u_4 - 5202\,u_2{}^3)x^4 + (-1106784\,u_2t_1t_2 - 368928\,u_2t_1u_3 + 19440\,u_3{}^2 + 431892\,u_2{}^3t_1 + 1131732\,u_2{}^2t_1{}^2 - 276696\,u_2{}^2t_2 - 92232\,u_2{}^2u_3 + 1563624\,u_2t_1{}^3 + 81972\,u_2u_4 + 163944\,u_2t_3 - 1106784\,t_1{}^2t_2 - 368928\,t_1{}^2u_3 + 163944\,t_1u_4 + 327888\,t_1t_3 + 174960\,t_2{}^2 + 116640\,t_2u_3 + 699840\,t_1{}^4 - 11808\,u_5 - 59040\,t_4 + 84726\,u_2{}^4)x^5 + (-1395954\,u_2{}^5 - 7199640\,u_2t_2{}^2 + 12661032\,u_3t_1{}^3 - 531432\,t_5 + 28885896\,u_2{}^2t_1t_2 + 9628632\,u_2{}^2t_1u_3 + 59617620\,u_2t_1{}^2t_2 + 19872540\,u_2t_1{}^2u_3 - 6572016\,u_2t_1u_4 - 13144032\,u_2t_1t_3 - 4622616\,u_2t_2u_3 - 9245232\,t_1t_2u_3 + 615276\,u_3u_4 - 52528176\,u_2t_1{}^4 - 9030528\,u_2{}^4t_1 - 27907092\,u_2{}^3t_1{}^2 + 5737230\,u_2{}^3t_2 - 52528176\,u_2{}^2t_1{}^3 - 1643004\,u_2{}^2u_4 - 3286008\,u_2{}^2t_3 - 18382464\,t_1{}^5 + 342468\,u_2u_5 + 1712340\,u_2t_4 - 1540872\,t_1u_3{}^2 + 38514528\,t_1{}^3t_2 - 6572016\,t_1{}^2u_4 - 13144032\,t_1{}^2t_3 - 13867848\,t_1t_2{}^2 + 684936\,t_1u_5 + 3424680\,t_1t_4 + 3691656\,t_2t_3 + 1845828\,t_2u_4 + 1230552\,u_3t_3 + 1558122\,u_3u_2{}^3 - 1036152\,u_2u_3{}^2 - 531432\,u_6)x^6 + (4776408\,u_4{}^2 + 24345684\,u_2{}^6 - 2093040\,u_3{}^3 - 4782960\,t_6 + 19105632\,t_3{}^2 - 18837360\,t_2u_3{}^2 - 56512080\,t_2{}^2u_3 + 7593264\,t_2u_5 + 37966320\,t_2t_4 + 2531088\,u_3u_5 + 12655440\,u_3t_4 - 56512080\,t_2{}^3 + 19105632\,u_4t_3 + 85291056\,t_1{}^2u_3{}^2 - 1319058432\,t_1{}^4t_2 + 244034208\,t_1{}^3u_4 + 488068416\,t_1{}^3t_3 + 767619504\,t_1{}^2t_2{}^2 - 30090528\,t_1{}^2u_5 - 150452640\,t_1{}^2t_4 + 35074944\,t_1u_6 + 511746336\,t_1{}^2t_2u_3 + 200673612\,u_2{}^2t_2{}^2 + 17537472\,u_2t_5 + 2266694280\,u_2{}^2t_1{}^4 + 186306156\,u_2{}^5t_1 + 692272980\,u_2{}^4t_1{}^2 - 122470380\,u_2{}^4t_2 + 1568953800\,u_2{}^3t_1{}^3 + 35280684\,u_2{}^3u_4 + 70561368\,u_2{}^3t_3 + 1760727456\,u_2t_1{}^5 - 7522632\,u_2{}^2u_5 - 37613160\,u_2{}^2t_4 - 739587672\,u_2{}^3t_1t_2 - 223145928\,u_2{}^3t_1u_3 - 2058646104\,u_2{}^2t_1{}^2t_2 - 686215368\,u_2{}^2t_1{}^2u_3 + 183025656\,u_2{}^2t_1u_4 + 366051312\,u_2{}^2t_1t_3 + 127936584\,u_2{}^2t_2u_3 - 926898768\,u_2u_3t_1{}^3 - 26686152\,u_2u_3u_4 + 102828528\,u_2t_1u_3{}^2 - 2798233776\,u_2t_1{}^3t_2 + 375604128\,u_2t_1{}^2u_4 + 751208256\,u_2t_1{}^2t_3 + 785156976\,u_2t_1t_2{}^2 - 30090528\,u_2t_1u_5 - 150452640\,u_2t_1t_4 - 160116912\,u_2t_2t_3 - 80058456\,u_2t_2u_4 - 53372304\,u_2u_3t_3 - 53372304\,t_1u_3u_4 - 320233824\,t_1t_2t_3 - 160116912\,t_1t_2u_4 - 106744608\,t_1u_3t_3 - 29131812\,u_3u_2{}^4 + 30091500\,u_2{}^2u_3{}^2 + 17537472\,u_2u_6 - 427994496\,u_3t_1{}^4 + 35074944\,t_1t_5 + 505564416\,t_1{}^6 + 511746336\,u_2t_1t_2u_3 - 683280\,u_7)x^7 + (-43046712\,t_7 - 922266684\,u_2t_3{}^2 - 717018480\,t_1t_2u_5 - 3585092400\,t_1t_2t_4 - 235947510\,u_2u_4{}^2 - 783021186\,u_2{}^4u_4 - 21523356\,u_8 - 447512211\,u_2{}^7 - 18283949856\,u_2{}^2t_1t_2u_3 - 37205879688\,u_2t_1{}^2t_2u_3 + 3144206160\,u_2t_1u_3u_4 + 18865236960\,u_2t_1t_2t_3 + 9432618480\,u_2t_1t_2u_4 + 6288412320\,u_2t_1u_3t_3 + 186545592\,u_2u_3{}^3 +$$

$$176969772\,u_2t_6 + 3499812360\,u_2t_2{}^3 - 5259125394\,u_2{}^3t_2{}^2 - 419305896\,u_2{}^2t_5 - 80629227702\,u_2{}^3t_1{}^4 - 3873060684\,u_2{}^6t_1 - 16770182004\,u_2{}^5t_1{}^2 + 2581950330\,u_2{}^5t_2 - 45023601168\,u_2{}^4t_1{}^3 - 1544519016\,u_2{}^4t_3 - 93421036368\,u_2{}^2t_1{}^5 + 168167178\,u_2{}^3u_5 + 840835890\,u_2{}^3t_4 + 581112846\,u_3u_2{}^5 - 685321074\,u_2{}^3u_3{}^2 - 419305896\,u_2{}^2u_6 - 59062716864\,u_2t_1{}^6 + 25281396\,u_2u_7 - 450371664\,t_1u_4{}^2 + 245014632\,t_1u_3{}^3 + 353939544\,t_1t_6 - 1801486656\,t_1t_3{}^2 + 6615395064\,t_1t_2{}^3 - 4020407784\,t_1{}^3u_3{}^2 + 44891936640\,t_1{}^5t_2 - 8774702172\,t_1{}^4u_4 - 17506357632\,t_1{}^4t_3 - 36567899712\,t_1{}^3t_2{}^2 + 18745039440\,u_2{}^4t_1t_2 + 5130197424\,u_2{}^4t_1u_3 + 63189384660\,u_2{}^3t_1{}^2t_2 + 19944979164\,u_2{}^3t_1{}^2u_3 - 4826961072\,u_2{}^3t_1u_4 - 9653922144\,u_2{}^3t_1t_3 - 3110161860\,u_2{}^3t_2u_3 + 40414384728\,u_2{}^2u_3t_1{}^3 + 786051540\,u_2{}^2u_3u_4 - 3885936768\,u_2{}^2t_1u_3{}^2 + 121662460080\,u_2{}^2t_1{}^3t_2 - 13580139888\,u_2{}^2t_1{}^2u_4 - 27160279776\,u_2{}^2t_1{}^2t_3 - 28264536576\,u_2{}^2t_1t_2{}^2 + 892873368\,u_2{}^2t_1u_5 + 4464366840\,u_2{}^2t_1t_4 + 4716309240\,u_2{}^2t_2t_3 + 2358154620\,u_2{}^2t_2u_4 + 1572103080\,u_2{}^2u_3t_3 - 24250523256\,t_1{}^3t_2u_3 + 38709900\,u_4u_5 + 193549500\,u_4t_4 + 77419800\,t_3u_5 + 387099000\,t_3t_4 - 637979976\,t_2u_3u_4 - 1275959952\,t_2u_3t_3 + 384229656\,t_2t_5 - 1913939928\,t_2{}^2t_3 - 956969964\,t_2{}^2u_4 + 384229656\,t_2u_6 + 128076552\,u_3t_5 - 106329996\,u_3{}^2u_4 - 212659992\,u_3{}^2t_3 + 128076552\,u_3u_6 - 239006160\,t_1u_3u_5 - 1195030800\,t_1u_3t_4 - 1801486656\,t_1u_4t_3 - 14374153728\,t_1{}^7 + 1190497824\,t_1{}^3u_5 + 5952489120\,t_1{}^3t_4 - 1677223584\,t_1{}^2u_6 + 14404904352\,u_3t_1{}^5 - 1677223584\,t_1{}^2t_5 + 50562792\,t_1u_7 + 3144206160\,t_1{}^2u_3u_4 + 18865236960\,t_1{}^2t_2t_3 + 9432618480\,t_1{}^2t_2u_4 + 6288412320\,t_1{}^2u_3t_3 + 1294680672\,u_2t_2u_3{}^2 + 3371735808\,u_2t_2{}^2u_3 - 358509240\,u_2t_2u_5 - 1792546200\,u_2t_2t_4 - 119503080\,u_2u_3u_5 - 597515400\,u_2u_3t_4 - 900743328\,u_2u_4t_3 - 7039591740\,u_2t_1{}^2u_3{}^2 + 121662460080\,u_2t_1{}^4t_2 - 18407100960\,u_2t_1{}^3u_4 - 36814201920\,u_2t_1{}^3t_3 - 56647431324\,u_2t_1{}^2t_2{}^2 + 1824456636\,u_2t_1{}^2u_5 + 9122283180\,u_2t_1{}^2t_4 - 1677223584\,u_2t_1u_6 + 39995078832\,u_2u_3t_1{}^4 - 1677223584\,u_2t_1t_5 + 2205131688\,t_1t_2u_3{}^2 + 6615395064\,t_1t_2{}^2u_3)x^8 + (27748364160\,u_3t_2{}^3 + 548844658920\,u_2{}^3t_1t_2u_3 + 1645790429160\,u_2{}^2t_1{}^2t_2u_3 - 117611261280\,u_2{}^2t_1u_3u_4 - 19747028880\,t_1u_4t_4 - 7898811552\,t_1t_3u_5 - 39494057760\,t_1t_3t_4 - 39264860160\,t_1t_2t_5 + 237819803760\,t_1t_2{}^2t_3 + 118909901880\,t_1t_2{}^2u_4 - 39264860160\,t_1t_2u_6 - 13088286720\,t_1u_3t_5 + 13212211320\,t_1u_3{}^2u_4 + 26424422640\,t_1u_3{}^2t_3 - 13088286720\,t_1u_3u_6 + 419091065856\,t_1{}^8 - 54542240352\,u_2{}^6t_2 + 1243444621608\,u_2{}^5t_1{}^3 + 33358625928\,u_2{}^5t_3 + 3887873179596\,u_2{}^3t_1{}^5 - 3783877092\,u_2{}^4u_5 - 18919385460\,u_2{}^4t_4 - 11658208824\,u_3u_2{}^6 + 14986039860\,u_2{}^4u_3{}^2 + 9783806940\,u_2{}^3u_6 + 3732793155072\,u_2{}^2t_1{}^6 - 653900040\,u_2{}^2u_7 + 1984759396992\,u_2t_1{}^7 + 3529830960\,t_1t_7 + 1764915480\,t_1u_8 + 28167860160\,t_1{}^2u_4{}^2 - 18252648000\,t_1{}^2u_3{}^3 - 18309201120\,t_1{}^2t_6 + 112671440640\,t_1{}^2t_3{}^2 - 492821496000\,t_1{}^2t_2{}^3 + 174098770560\,t_1{}^4u_3{}^2 - 1524315345408\,t_1{}^6t_2 + 310160049048\,t_1{}^5u_4 + 616790267136\,t_1{}^5t_3 + 1606153795200\,t_1{}^4t_2{}^2 - 44744410368\,t_1{}^4u_5 - 223722051840\,t_1{}^4t_4 + 70528475520\,t_1{}^3u_6 - 484595623296\,u_3t_1{}^6 + 70528475520\,t_1{}^3t_5 - 2615600160\,t_1{}^2u_7 - 512453926080\,u_2t_1t_2{}^3 - 5043391081344\,u_2t_1{}^5t_2 + 828206011980\,u_2t_1{}^4u_4 + 1654647108480\,u_2t_1{}^4t_3 + 3366481730040\,u_2t_1{}^3t_2{}^2 - 1974702888\,u_2u_4u_5 - 9873514440\,u_2u_4t_4 - 3949405776\,u_2t_3u_5 - 19747028880\,u_2t_3t_4 - 19632430080\,u_2t_2t_5 + 120845396880\,u_2t_2{}^2t_3 + 60422698440\,u_2t_2{}^2u_4 - 19632430080\,u_2t_2u_6 - 6544143360\,u_2u_3t_5 + 7573853160\,u_2u_3{}^2u_4 + 15147706320\,u_2u_3{}^2t_3 - 6544143360\,u_2u_3u_6 - 93438226512\,u_2t_1{}^3u_5 - 467191132560\,u_2t_1{}^3t_4 + 107728208280\,u_2t_1{}^2u_6 - 1645220957688\,u_2u_3t_1{}^5 + 107728208280\,u_2t_1{}^2t_5 - 2615600160\,u_2t_1u_7 - 3949405776\,t_1u_4u_5 + 403218133560\,u_2t_1{}^3u_3{}^2 - 462226019184\,u_2{}^5t_1t_2 - 118811101968\,u_2{}^5t_1u_3 - 1845973041840\,u_2{}^4t_1{}^2t_2 - 543505541760\,u_2{}^4t_1{}^2u_3 + 125423797140\,u_2{}^4t_1u_4 + 249082678800\,u_2{}^4t_1t_3 + 73653105060\,u_2{}^4t_2u_3 - 1416001303980\,u_2{}^3u_3t_1{}^3 - 20074210560\,u_2{}^3u_3u_4 + 113559525900\,u_2{}^3t_1u_3{}^2 - 4398844669920\,u_2{}^3t_1{}^3t_2 + 427745707200\,u_2{}^3t_1{}^2u_4 + 855491414400\,u_2{}^3t_1{}^2t_3 + 888980026860\,u_2{}^3t_1t_2{}^2 - 24346908072\,u_2{}^3t_1u_5 - 121734540360\,u_2{}^3t_1t_4 - 128187243360\,u_2{}^3t_2t_3 - 64093621680\,u_2{}^3t_2u_4 - 40148421120\,u_2{}^3u_3t_3 - 50884673040\,u_2{}^2t_2u_3{}^2 -$$

$126477445680\,u_2{}^2t_2{}^2u_3 + 11220307272\,u_2{}^2t_2u_5 + 56101536360\,u_2{}^2t_2t_4 + 3740102424\,u_2{}^2u_3u_5 + 18700512120\,u_2{}^2u_3t_4 + 28167860160\,u_2{}^2u_4t_3 + 328162509000\,u_2{}^2t_1{}^2u_3{}^2 - 6427138104000\,u_2{}^2t_1{}^4t_2 + 827323554240\,u_2{}^2t_1{}^3u_4 + 1654647108480\,u_2{}^2t_1{}^3t_3 + 2522549747880\,u_2{}^2t_1{}^2t_2{}^2 - 69091318440\,u_2{}^2t_1{}^2u_5 - 345456592200\,u_2{}^2t_1{}^2t_4 + 52896356640\,u_2{}^2t_1u_6 - 2124747249120\,u_2{}^2u_3t_1{}^4 + 52896356640\,u_2{}^2t_1t_5 + 44881229088\,t_1{}^2t_2u_5 + 224406145440\,t_1{}^2t_2t_4 + 1057680910080\,t_1{}^4t_2u_3 + 14960409696\,t_1{}^2u_3u_5 + 74802048480\,t_1{}^2u_3t_4 + 112671440640\,t_1{}^2u_4t_3 - 156169850040\,t_1{}^3u_3u_4 - 940890090240\,t_1{}^3t_2t_3 - 470445045120\,t_1{}^3t_2u_4 - 312339700080\,t_1{}^3u_3t_3 - 164273832000\,t_1{}^2t_2u_3{}^2 - 492821496000\,t_1{}^2t_2{}^2u_3 + 29050317900\,u_2t_1u_4{}^2 - 24796791360\,u_2t_1u_3{}^3 - 18309201120\,u_2t_1t_6 + 114436356120\,u_2t_1t_3{}^2 + 29050317900\,u_2{}^2t_3{}^2 + 7483193910\,u_2{}^2u_4{}^2 + 17120541834\,u_2{}^5u_4 + 882457740\,u_2u_8 - 4577300280\,u_2{}^2t_6 - 133021589040\,u_2{}^2t_2{}^3 + 135003991140\,u_2{}^4t_2{}^2 + 9783806940\,u_2{}^3t_5 + 2640162301110\,u_2{}^4t_1{}^4 + 81863125146\,u_2{}^7t_1 + 399820577796\,u_2{}^6t_1{}^2 + 1935495000\,u_4u_6 + 3870990000\,t_3t_5 + 3870990000\,t_3u_6 - 21151964160\,t_2t_3{}^2 + 13938752160\,t_2{}^2u_3{}^2 - 4207997952\,t_2{}^2u_5 - 21039989760\,t_2{}^2t_4 + 20908128240\,t_2{}^4 - 5287991040\,t_2u_4{}^2 + 3097500480\,t_2u_3{}^3 + 3840721920\,t_2t_6 - 2805331968\,t_2u_3u_5 - 14026659840\,t_2u_3t_4 - 21151964160\,t_2u_4t_3 - 705667567680\,u_2{}^2t_1t_2t_3 - 352833783840\,u_2{}^2t_1t_2u_4 - 235222522560\,u_2{}^2t_1u_3t_3 + 44881229088\,u_2t_1t_2u_5 + 224406145440\,u_2t_1t_2t_4 + 2214267518160\,u_2t_1{}^3t_2u_3 + 39636633960\,u_2t_2u_3u_4 + 79273267920\,u_2t_2u_3t_3 + 14960409696\,u_2t_1u_3u_5 + 74802048480\,u_2t_1u_3t_4 + 112671440640\,u_2t_1u_4t_3 - 238747849920\,u_2t_1{}^2u_3u_4 - 1432487099520\,u_2t_1{}^2t_2t_3 - 716243549760\,u_2t_1{}^2t_2u_4 - 477495699840\,u_2t_1{}^2u_3t_3 - 183906262080\,u_2t_1t_2u_3{}^2 - 499365639360\,u_2t_1t_2{}^2u_3 + 79273267920\,t_1t_2u_3u_4 + 158546535840\,t_1t_2u_3t_3 - 7835233680\,u_2{}^2u_3{}^3 + 8436854133\,u_2{}^8 + 1764915480\,u_2t_7 + 774722880\,t_4u_5 + 1936807200\,t_4{}^2 + 548674560\,t_2u_7 - 1762663680\,u_3u_4{}^2 + 1280240640\,u_3t_6 - 7050654720\,u_3t_3{}^2 - 467555328\,u_3{}^2u_5 - 2337776640\,u_3{}^2t_4 + 182891520\,u_3u_7 - 7050654720\,u_3u_4t_3 + 77472288\,u_5{}^2 + 1935495000\,u_4t_5 - 387420480\,t_8 - 129140160\,u_9 + 215078320\,u_3{}^4)x^9 + O(x^{10}))$

7. Examples of 2-typical formal group laws

7.1. $F_{BP}(x,y)$ **at** $p = 2$ **over** BP_***.** We use c_n to denote $[\mathbb{C}P^n] \in BP^*$.

```
> restart: with(powseries):
> BP:=proc(p,d) # p is the prime, d is the total degree
> local f_BP,logBP,expBP,e_BP,F_BP,t;
> # c_n is [CP^n]
> t:=evalf(1+ceil(log(d-1)/log(p)));
> f_BP:=x->sum(c[(p^i-1)]*x^(p^i)/p^i,i=0..t);
> print(f_BP(x));
> latex(f_BP(x));
> logBP:=powpoly(f_BP(x),x);
> expBP:=reversion(logBP);
> e_BP:=x->convert(simplify(tpsform(expBP,x,d+2)),polynom);
> F_BP:=(x,y)->sort(simplify(mtaylor(subs(z=f_BP(x)+f_BP(y),
  e_BP(z)),[x,y],d+1)), [x,y]);
> print(F_BP(x,y));
> latex(F_BP(x,y));
> end proc:
> BP(2,32);
```

The results of these computations are that logarithm $\log_{BP}(x)$ at $p = 2$ equals

$x + 1/2\,c_1x^2 + 1/4\,c_3x^4 + 1/8\,c_7x^8 + 1/16\,c_{15}x^{16} + 1/32\,c_{31}x^{32}$

The formal group law $F_{BP}(x,y)$ at $p = 2$ equals

$x + y$

$-c_1xy$

$+c_1{}^2x^2y + c_1{}^2xy^2$

$-c_1{}^3x^3y - c_3x^3y - 3/2\,c_3x^2y^2 - 5/2\,c_1{}^3x^2y^2 - c_1{}^3xy^3 - c_3xy^3$

$+2\,c_3c_1x^4y + c_1{}^4x^4y + 11/2\,c_3c_1x^3y^2 + 9/2\,c_1{}^4x^3y^2 + 11/2\,c_3c_1x^2y^3 + 9/2\,c_1{}^4x^2y^3 + c_1{}^4xy^4 + 2\,c_3c_1xy^4$

$-c_1{}^5x^5y - 3\,c_3c_1{}^2x^5y - 7\,c_1{}^5x^4y^2 - 14\,c_3c_1{}^2x^4y^2 - \frac{25}{2}\,c_1{}^5x^3y^3 - \frac{43}{2}\,c_3c_1{}^2x^3y^3 - 7\,c_1{}^5x^2y^4 - 14\,c_3c_1{}^2x^2y^4 - c_1{}^5xy^5 - 3\,c_3c_1{}^2xy^5$

$+4\,c_3c_1{}^3x^6y + c_3{}^2x^6y + c_1{}^6x^6y + 10\,c_1{}^6x^5y^2 + 9/2\,c_3{}^2x^5y^2 + \frac{57}{2}\,c_3c_1{}^3x^5y^2 + 17/2\,c_3{}^2x^4y^3 + \frac{55}{2}\,c_1{}^6x^4y^3 + 65\,c_3c_1{}^3x^4y^3 + 17/2\,c_3{}^2x^3y^4 + \frac{55}{2}\,c_1{}^6x^3y^4 + 65\,c_3c_1{}^3x^3y^4 + 9/2\,c_3{}^2x^2y^5 + \frac{57}{2}\,c_3c_1{}^3x^2y^5 + 10\,c_1{}^6x^2y^5 + 4\,c_3c_1{}^3xy^6 + c_3{}^2xy^6 + c_1{}^6xy^6$

$-5\,c_3c_1{}^4x^7y - 3\,c_1c_3{}^2x^7y - c_7x^7y - c_1{}^7x^7y - \frac{101}{2}\,c_3c_1{}^4x^6y^2 - \frac{41}{2}\,c_1c_3{}^2x^6y^2 - \frac{27}{2}\,c_1{}^7x^6y^2 - 7/2\,c_7x^6y^2 - 53\,c_1c_3{}^2x^5y^3 - \frac{105}{2}\,c_1{}^7x^5y^3 - 7\,c_7x^5y^3 - \frac{325}{2}\,c_3c_1{}^4x^5y^3 - \frac{35}{4}\,c_7x^4y^4 - \frac{645}{8}\,c_1{}^7x^4y^4 - \frac{467}{2}\,c_3c_1{}^4x^4y^4 - \frac{569}{8}\,c_1c_3{}^2x^4y^4 - 53\,c_1c_3{}^2x^3y^5 - \frac{325}{2}\,c_3c_1{}^4x^3y^5 - 7\,c_7x^3y^5 - \frac{105}{2}\,c_1{}^7x^3y^5 - \frac{41}{2}\,c_1c_3{}^2x^2y^6 - \frac{101}{2}\,c_3c_1{}^4x^2y^6 - 7/2\,c_7x^2y^6 - \frac{27}{2}\,c_1{}^7x^2y^6 - c_7xy^7 - 5\,c_3c_1{}^4xy^7 - 3\,c_1c_3{}^2xy^7 - c_1{}^7xy^7$

$+2\,c_7c_1x^8y + c_1{}^8x^8y + 6\,c_1{}^2c_3{}^2x^8y + 6\,c_3c_1{}^5x^8y + \frac{117}{2}\,c_1{}^2c_3{}^2x^7y^2 + \frac{163}{2}\,c_3c_1{}^5x^7y^2 + 23/2\,c_7c_1x^7y^2 + \frac{35}{2}\,c_1{}^8x^7y^2 + \frac{707}{2}\,c_3c_1{}^5x^6y^3 + 204\,c_1{}^2c_3{}^2x^6y^3 + 91\,c_1{}^8x^6y^3 + \frac{63}{2}\,c_7c_1x^6y^3 + \frac{1575}{8}\,c_1{}^8x^5y^4 + \frac{2883}{8}\,c_1{}^2c_3{}^2x^5y^4 + 695\,c_3c_1{}^5x^5y^4 + \frac{203}{4}\,c_7c_1x^5y^4 + \frac{2883}{8}\,c_1{}^2c_3{}^2x^4y^5 + \frac{203}{4}\,c_7c_1x^4y^5 + 695\,c_3c_1{}^5x^4y^5 +$

$\frac{1575}{8}\,c_1{}^8x^4y^5+\frac{707}{2}\,c_3c_1{}^5x^3y^6+\frac{63}{2}\,c_7c_1x^3y^6+204\,c_1{}^2c_3{}^2x^3y^6+91\,c_1{}^8x^3y^6+\frac{35}{2}\,c_1{}^8x^2y^7+$
$\frac{163}{2}\,c_3c_1{}^5x^2y^7+23/2\,c_7c_1x^2y^7+\frac{117}{2}\,c_1{}^2c_3{}^2x^2y^7+c_1{}^8xy^8+6\,c_3c_1{}^5xy^8+2\,c_7c_1xy^8+6\,c_1{}^2c_3{}^2xy^8$

$-c_3{}^3x^9y-10\,c_1{}^3c_3{}^2x^9y-7\,c_3c_1{}^6x^9y-c_1{}^9x^9y-3\,c_7c_1{}^2x^9y-132\,c_1{}^3c_3{}^2x^8y^2-9\,c_3{}^3x^8y^2-$
$26\,c_7c_1{}^2x^8y^2-22\,c_1{}^9x^8y^2-123\,c_3c_1{}^6x^8y^2-\frac{191}{2}\,c_7c_1{}^2x^7y^3-147\,c_1{}^9x^7y^3-\frac{65}{2}\,c_3{}^3x^7y^3-$
$605\,c_1{}^3c_3{}^2x^7y^3-693\,c_3c_1{}^6x^7y^3-\frac{5527}{4}\,c_1{}^3c_3{}^2x^6y^4-\frac{847}{2}\,c_1{}^9x^6y^4-\frac{523}{8}\,c_3{}^3x^6y^4-\frac{791}{4}\,c_7c_1{}^2x^6y^4-$
$\frac{14341}{8}\,c_3c_1{}^6x^6y^4-\frac{1001}{4}\,c_7c_1{}^2x^5y^5-\frac{9723}{4}\,c_3c_1{}^6x^5y^5-\frac{327}{4}\,c_3{}^3x^5y^5-\frac{14379}{8}\,c_1{}^3c_3{}^2x^5y^5-\frac{4767}{8}\,c_1{}^9x^5y^5-$
$\frac{14341}{8}\,c_3c_1{}^6x^4y^6-\frac{523}{8}\,c_3{}^3x^4y^6-\frac{791}{4}\,c_7c_1{}^2x^4y^6-\frac{847}{2}\,c_1{}^9x^4y^6-\frac{5527}{4}\,c_1{}^3c_3{}^2x^4y^6-693\,c_3c_1{}^6x^3y^7-$
$\frac{65}{2}\,c_3{}^3x^3y^7-605\,c_1{}^3c_3{}^2x^3y^7-\frac{191}{2}\,c_7c_1{}^2x^3y^7-147\,c_1{}^9x^3y^7-9\,c_3{}^3x^2y^8-26\,c_7c_1{}^2x^2y^8-22\,c_1{}^9x^2y^8-$
$123\,c_3c_1{}^6x^2y^8-132\,c_1{}^3c_3{}^2x^2y^8-c_1{}^9xy^9-3\,c_7c_1{}^2xy^9-10\,c_1{}^3c_3{}^2xy^9-c_3{}^3xy^9-7\,c_3c_1{}^6xy^9$

$+4\,c_1c_3{}^3x^{10}y+2\,c_3c_7x^{10}y+c_1{}^{10}x^{10}y+4\,c_7c_1{}^3x^{10}y+8\,c_3c_1{}^7x^{10}y+15\,c_1{}^4c_3{}^2x^{10}y+\frac{99}{2}\,c_1c_3{}^3x^9y^2+$
$27\,c_1{}^{10}x^9y^2+\frac{97}{2}\,c_7c_1{}^3x^9y^2+\frac{515}{2}\,c_1{}^4c_3{}^2x^9y^2+15\,c_3c_7x^9y^2+\frac{353}{2}\,c_3c_1{}^7x^9y^2+225\,c_1{}^{10}x^8y^3+$
$53\,c_3c_7x^8y^3+1254\,c_3c_1{}^7x^8y^3+233\,c_7c_1{}^3x^8y^3+1510\,c_1{}^4c_3{}^2x^8y^3+231\,c_1c_3{}^3x^8y^3+\frac{459}{4}\,c_3c_7x^7y^4+$
$\frac{2447}{4}\,c_7c_1{}^3x^7y^4+\frac{1659}{2}\,c_1{}^{10}x^7y^4+\frac{17485}{4}\,c_1{}^4c_3{}^2x^7y^4+\frac{1161}{2}\,c_1c_3{}^3x^7y^4+\frac{16541}{4}\,c_3c_1{}^7x^7y^4+\frac{665}{4}\,c_3c_7x^6y^5+$
$\frac{57805}{8}\,c_1{}^4c_3{}^2x^6y^5+\frac{3591}{4}\,c_1c_3{}^3x^6y^5+\frac{12411}{8}\,c_1{}^{10}x^6y^5+7301\,c_3c_1{}^7x^6y^5+973\,c_7c_1{}^3x^6y^5+\frac{12411}{8}\,c_1{}^{10}x^5y^6+$
$7301\,c_3c_1{}^7x^5y^6+\frac{3591}{4}\,c_1c_3{}^3x^5y^6+973\,c_7c_1{}^3x^5y^6+\frac{665}{4}\,c_3c_7x^5y^6+\frac{57805}{8}\,c_1{}^4c_3{}^2x^5y^6+$
$\frac{17485}{4}\,c_1{}^4c_3{}^2x^4y^7+\frac{1659}{2}\,c_1{}^{10}x^4y^7+\frac{1161}{2}\,c_1c_3{}^3x^4y^7+\frac{2447}{4}\,c_7c_1{}^3x^4y^7+\frac{16541}{4}\,c_3c_1{}^7x^4y^7+\frac{459}{4}\,c_3c_7x^4y^7+$
$1510\,c_1{}^4c_3{}^2x^3y^8+233\,c_7c_1{}^3x^3y^8+231\,c_1c_3{}^3x^3y^8+53\,c_3c_7x^3y^8+225\,c_1{}^{10}x^3y^8+1254\,c_3c_1{}^7x^3y^8+$
$\frac{99}{2}\,c_1c_3{}^3x^2y^9+\frac{515}{2}\,c_1{}^4c_3{}^2x^2y^9+15\,c_3c_7x^2y^9+\frac{97}{2}\,c_7c_1{}^3x^2y^9+\frac{353}{2}\,c_3c_1{}^7x^2y^9+27\,c_1{}^{10}x^2y^9+c_1{}^{10}xy^{10}+$
$15\,c_1{}^4c_3{}^2xy^{10}+4\,c_1c_3{}^3xy^{10}+4\,c_7c_1{}^3xy^{10}+2\,c_3c_7xy^{10}+8\,c_3c_1{}^7xy^{10}$

$-c_1{}^{11}x^{11}y-21\,c_1{}^5c_3{}^2x^{11}y-10\,c_1{}^2c_3{}^3x^{11}y-9\,c_3c_1{}^8x^{11}y-6\,c_1c_3c_7x^{11}y-5\,c_7c_1{}^4x^{11}y-$
$65\,c_1c_3c_7x^{10}y^2-\frac{65}{2}\,c_1{}^{11}x^{10}y^2-\frac{909}{2}\,c_1{}^5c_3{}^2x^{10}y^2-\frac{161}{2}\,c_7c_1{}^4x^{10}y^2-163\,c_1{}^2c_3{}^3x^{10}y^2-\frac{487}{2}\,c_3c_1{}^8x^{10}y^2-$
$965\,c_1{}^2c_3{}^3x^9y^3-\frac{6657}{2}\,c_1{}^5c_3{}^2x^9y^3-2130\,c_3c_1{}^8x^9y^3-\frac{985}{2}\,c_7c_1{}^4x^9y^3-300\,c_1c_3c_7x^9y^3-330\,c_1{}^{11}x^9y^3-$
$11976\,c_1{}^5c_3{}^2x^8y^4-\frac{6447}{4}\,c_7c_1{}^4x^8y^4-\frac{3235}{4}\,c_1c_3c_7x^8y^4-\frac{12003}{4}\,c_1{}^2c_3{}^3x^8y^4-\frac{17455}{2}\,c_3c_1{}^8x^8y^4-$
$\frac{6045}{4}\,c_1{}^{11}x^8y^4-3179\,c_7c_1{}^4x^7y^5-\frac{45441}{8}\,c_1{}^2c_3{}^3x^7y^5-\frac{155631}{8}\,c_3c_1{}^8x^7y^5-1423\,c_1c_3c_7x^7y^5-$
$\frac{28875}{8}\,c_1{}^{11}x^7y^5-\frac{197253}{8}\,c_1{}^5c_3{}^2x^7y^5-\frac{111729}{16}\,c_1{}^2c_3{}^3x^6y^6-\frac{498405}{16}\,c_1{}^5c_3{}^2x^6y^6-\frac{13685}{8}\,c_1c_3c_7x^6y^6-$
$\frac{76713}{16}\,c_1{}^{11}x^6y^6-\frac{403893}{16}\,c_3c_1{}^8x^6y^6-\frac{31745}{8}\,c_7c_1{}^4x^6y^6-\frac{45441}{8}\,c_1{}^2c_3{}^3x^5y^7-\frac{155631}{8}\,c_3c_1{}^8x^5y^7-$
$\frac{197253}{8}\,c_1{}^5c_3{}^2x^5y^7-1423\,c_1c_3c_7x^5y^7-3179\,c_7c_1{}^4x^5y^7-\frac{28875}{8}\,c_1{}^{11}x^5y^7-\frac{12003}{4}\,c_1{}^2c_3{}^3x^4y^8-$
$\frac{6045}{4}\,c_1{}^{11}x^4y^8-\frac{17455}{2}\,c_3c_1{}^8x^4y^8-\frac{3235}{4}\,c_1c_3c_7x^4y^8-\frac{6447}{4}\,c_7c_1{}^4x^4y^8-11976\,c_1{}^5c_3{}^2x^4y^8-$
$300\,c_1c_3c_7x^3y^9-2130\,c_3c_1{}^8x^3y^9-330\,c_1{}^{11}x^3y^9-\frac{6657}{2}\,c_1{}^5c_3{}^2x^3y^9-965\,c_1{}^2c_3{}^3x^3y^9-\frac{985}{2}\,c_7c_1{}^4x^3y^9-$
$\frac{909}{2}\,c_1{}^5c_3{}^2x^2y^{10}-163\,c_1{}^2c_3{}^3x^2y^{10}-\frac{161}{2}\,c_7c_1{}^4x^2y^{10}-\frac{487}{2}\,c_3c_1{}^8x^2y^{10}-\frac{65}{2}\,c_1{}^{11}x^2y^{10}-65\,c_1c_3c_7x^2y^{10}-$
$5\,c_7c_1{}^4xy^{11}-21\,c_1{}^5c_3{}^2xy^{11}-c_1{}^{11}xy^{11}-10\,c_1{}^2c_3{}^3xy^{11}-9\,c_3c_1{}^8xy^{11}-6\,c_1c_3c_7xy^{11}$

$+12\,c_1{}^2c_3c_7x^{12}y+c_1{}^{12}x^{12}y+20\,c_1{}^3c_3{}^3x^{12}y+c_3{}^4x^{12}y+28\,c_1{}^6c_3{}^2x^{12}y+6\,c_7c_1{}^5x^{12}y+10\,c_3c_1{}^9x^{12}y+$
$\frac{77}{2}\,c_1{}^{12}x^{11}y^2+\frac{247}{2}\,c_7c_1{}^5x^{11}y^2+415\,c_1{}^3c_3{}^3x^{11}y^2+177\,c_1{}^2c_3c_7x^{11}y^2+\frac{651}{2}\,c_3c_1{}^9x^{11}y^2+\frac{1491}{2}\,c_1{}^6c_3{}^2x^{11}y^2+$
$15\,c_3{}^4x^{11}y^2+1044\,c_1{}^2c_3c_7x^{10}y^3+3055\,c_1{}^3c_3{}^3x^{10}y^3+\frac{175}{2}\,c_3{}^4x^{10}y^3+\frac{6875}{2}\,c_3c_1{}^9x^{10}y^3+\frac{935}{2}\,c_1{}^{12}x^{10}y^3+$
$6678\,c_1{}^6c_3{}^2x^{10}y^3+\frac{1879}{2}\,c_7c_1{}^5x^{10}y^3+\frac{10395}{4}\,c_1{}^{12}x^9y^4+3468\,c_1{}^2c_3c_7x^9y^4+\frac{2273}{8}\,c_3{}^4x^9y^4+$
$\frac{234619}{8}\,c_1{}^6c_3{}^2x^9y^4+17136\,c_3c_1{}^9x^9y^4+\frac{23225}{2}\,c_1{}^3c_3{}^3x^9y^4+\frac{15065}{4}\,c_7c_1{}^5x^9y^4+\frac{4731}{8}\,c_3{}^4x^8y^5+\frac{36291}{4}\,c_7c_1{}^5x^8y^5+$
$\frac{188235}{4}\,c_3c_1{}^9x^8y^5+\frac{29493}{4}\,c_1{}^2c_3c_7x^8y^5+\frac{61545}{8}\,c_1{}^{12}x^8y^5+\frac{295491}{4}\,c_1{}^6c_3{}^2x^8y^5+26625\,c_1{}^3c_3{}^3x^8y^5+$
$\frac{635005}{16}\,c_1{}^3c_3{}^3x^7y^6+\frac{6735}{8}\,c_3{}^4x^7y^6+\frac{208593}{16}\,c_1{}^{12}x^7y^6+\frac{85011}{8}\,c_1{}^2c_3c_7x^7y^6+\frac{1227933}{16}\,c_3c_1{}^9x^7y^6+$
$\frac{111329}{8}\,c_7c_1{}^5x^7y^6+\frac{1844927}{16}\,c_1{}^6c_3{}^2x^7y^6+\frac{208593}{16}\,c_1{}^{12}x^6y^7+\frac{1227933}{16}\,c_3c_1{}^9x^6y^7+\frac{635005}{16}\,c_1{}^3c_3{}^3x^6y^7+$
$\frac{6735}{8}\,c_3{}^4x^6y^7+\frac{111329}{8}\,c_7c_1{}^5x^6y^7+\frac{1844927}{16}\,c_1{}^6c_3{}^2x^6y^7+\frac{85011}{8}\,c_1{}^2c_3c_7x^6y^7+\frac{61545}{8}\,c_1{}^{12}x^5y^8+$
$\frac{29493}{4}\,c_1{}^2c_3c_7x^5y^8+\frac{188235}{4}\,c_3c_1{}^9x^5y^8+\frac{295491}{4}\,c_1{}^6c_3{}^2x^5y^8+\frac{4731}{8}\,c_3{}^4x^5y^8+26625\,c_1{}^3c_3{}^3x^5y^8+$

$\frac{36291}{4}\,c_7c_1{}^5x^5y^8+\frac{234619}{8}\,c_1{}^6c_3{}^2x^4y^9+17136\,c_3c_1{}^9x^4y^9+\frac{10395}{4}\,c_1{}^{12}x^4y^9+3468\,c_1{}^2c_3c_7x^4y^9+$
$\frac{23225}{2}\,c_1{}^3c_3{}^3x^4y^9+\frac{2273}{8}\,c_3{}^4x^4y^9+\frac{15065}{4}\,c_7c_1{}^5x^4y^9+3055\,c_1{}^3c_3{}^3x^3y^{10}+\frac{6875}{2}\,c_3c_1{}^9x^3y^{10}+\frac{175}{2}\,c_3{}^4x^3y^{10}+$
$\frac{1879}{2}\,c_7c_1{}^5x^3y^{10}+6678\,c_1{}^6c_3{}^2x^3y^{10}+1044\,c_1{}^2c_3c_7x^3y^{10}+\frac{935}{2}\,c_1{}^{12}x^3y^{10}+\frac{1491}{2}\,c_1{}^6c_3{}^2x^2y^{11}+$
$\frac{77}{2}\,c_1{}^{12}x^2y^{11}+177\,c_1{}^2c_3c_7x^2y^{11}+\frac{651}{2}\,c_3c_1{}^9x^2y^{11}+415\,c_1{}^3c_3{}^3x^2y^{11}+\frac{247}{2}\,c_7c_1{}^5x^2y^{11}+15\,c_3{}^4x^2y^{11}+$
$c_1{}^{12}xy^{12}+20\,c_1{}^3c_3{}^3xy^{12}+6\,c_7c_1{}^5xy^{12}+10\,c_3c_1{}^9xy^{12}+c_3{}^4xy^{12}+28\,c_1{}^6c_3{}^2xy^{12}+12\,c_1{}^2c_3c_7xy^{12}$

$-5\,c_1c_3{}^4x^{13}y-35\,c_1{}^4c_3{}^3x^{13}y-c_1{}^{13}x^{13}y-36\,c_1{}^7c_3{}^2x^{13}y-11\,c_3c_1{}^{10}x^{13}y-7\,c_7c_1{}^6x^{13}y-$
$3\,c_3{}^2c_7x^{13}y-20\,c_1{}^3c_3c_7x^{13}y-179\,c_7c_1{}^6x^{12}y^2-45\,c_1{}^{13}x^{12}y^2-1156\,c_1{}^7c_3{}^2x^{12}y^2-97\,c_1c_3{}^4x^{12}y^2-$
$384\,c_1{}^3c_3c_7x^{12}y^2-900\,c_1{}^4c_3{}^3x^{12}y^2-39\,c_3{}^2c_7x^{12}y^2-424\,c_3c_1{}^{10}x^{12}y^2-12444\,c_1{}^7c_3{}^2x^{11}y^3-$
$\frac{10637}{2}\,c_3c_1{}^{10}x^{11}y^3-\frac{1287}{2}\,c_1{}^{13}x^{11}y^3-\frac{1405}{2}\,c_1c_3{}^4x^{11}y^3-1659\,c_7c_1{}^6x^{11}y^3-2830\,c_1{}^3c_3c_7x^{11}y^3-$
$8085\,c_1{}^4c_3{}^3x^{11}y^3-\frac{435}{2}\,c_3{}^2c_7x^{11}y^3-\frac{11021}{4}\,c_1c_3{}^4x^{10}y^4-\frac{5771}{8}\,c_3{}^2c_7x^{10}y^4-\frac{64131}{8}\,c_7c_1{}^6x^{10}y^4-$
$\frac{8525}{2}\,c_1{}^{13}x^{10}y^4-\frac{126785}{4}\,c_3c_1{}^{10}x^{10}y^4-\frac{148305}{4}\,c_1{}^4c_3{}^3x^{10}y^4-\frac{131267}{2}\,c_1{}^7c_3{}^2x^{10}y^4-\frac{22881}{2}\,c_1{}^3c_3c_7x^{10}y^4-$
$\frac{3219}{2}\,c_3{}^2c_7x^9y^5-\frac{841005}{8}\,c_3c_1{}^{10}x^9y^5-\frac{54533}{8}\,c_1c_3{}^4x^9y^5-\frac{814905}{8}\,c_1{}^4c_3{}^3x^9y^5-\frac{46473}{2}\,c_7c_1{}^6x^9y^5-$
$\frac{116639}{4}\,c_1{}^3c_3c_7x^9y^5-\frac{796275}{4}\,c_1{}^7c_3{}^2x^9y^5-\frac{122265}{8}\,c_1{}^{13}x^9y^5-\frac{1455225}{8}\,c_1{}^4c_3{}^3x^8y^6-\frac{86245}{2}\,c_7c_1{}^6x^8y^6-$
$\frac{91713}{8}\,c_1c_3{}^4x^8y^6-2559\,c_3{}^2c_7x^8y^6-\frac{1507825}{4}\,c_1{}^7c_3{}^2x^8y^6-\frac{1681929}{8}\,c_3c_1{}^{10}x^8y^6-\frac{256509}{8}\,c_1{}^{13}x^8y^6-$
$\frac{200273}{4}\,c_1{}^3c_3c_7x^8y^6-\frac{4220997}{16}\,c_3c_1{}^{10}x^7y^7-\frac{422641}{8}\,c_7c_1{}^6x^7y^7-\frac{7430259}{16}\,c_1{}^7c_3{}^2x^7y^7-\frac{478129}{8}\,c_1{}^3c_3c_7x^7y^7-$
$\frac{3516705}{16}\,c_1{}^4c_3{}^3x^7y^7-\frac{11915}{4}\,c_3{}^2c_7x^7y^7-\frac{108675}{8}\,c_1c_3{}^4x^7y^7-\frac{654225}{16}\,c_1{}^{13}x^7y^7-\frac{1681929}{8}\,c_3c_1{}^{10}x^6y^8-$
$2559\,c_3{}^2c_7x^6y^8-\frac{256509}{8}\,c_1{}^{13}x^6y^8-\frac{91713}{8}\,c_1c_3{}^4x^6y^8-\frac{86245}{2}\,c_7c_1{}^6x^6y^8-\frac{1455225}{8}\,c_1{}^4c_3{}^3x^6y^8-$
$\frac{200273}{4}\,c_1{}^3c_3c_7x^6y^8-\frac{1507825}{4}\,c_1{}^7c_3{}^2x^6y^8-\frac{841005}{8}\,c_3c_1{}^{10}x^5y^9-\frac{122265}{8}\,c_1{}^{13}x^5y^9-\frac{116639}{4}\,c_1{}^3c_3c_7x^5y^9-$
$\frac{54533}{8}\,c_1c_3{}^4x^5y^9-\frac{3219}{2}\,c_3{}^2c_7x^5y^9-\frac{46473}{2}\,c_7c_1{}^6x^5y^9-\frac{796275}{4}\,c_1{}^7c_3{}^2x^5y^9-\frac{814905}{8}\,c_1{}^4c_3{}^3x^5y^9-$
$\frac{126785}{4}\,c_3c_1{}^{10}x^4y^{10}-\frac{22881}{2}\,c_1{}^3c_3c_7x^4y^{10}-\frac{5771}{8}\,c_3{}^2c_7x^4y^{10}-\frac{64131}{8}\,c_7c_1{}^6x^4y^{10}-\frac{8525}{2}\,c_1{}^{13}x^4y^{10}-$
$\frac{11021}{4}\,c_1c_3{}^4x^4y^{10}-\frac{131267}{2}\,c_1{}^7c_3{}^2x^4y^{10}-\frac{148305}{4}\,c_1{}^4c_3{}^3x^4y^{10}-2830\,c_1{}^3c_3c_7x^3y^{11}-12444\,c_1{}^7c_3{}^2x^3y^{11}-$
$\frac{1405}{2}\,c_1c_3{}^4x^3y^{11}-8085\,c_1{}^4c_3{}^3x^3y^{11}-\frac{10637}{2}\,c_3c_1{}^{10}x^3y^{11}-\frac{1287}{2}\,c_1{}^{13}x^3y^{11}-1659\,c_7c_1{}^6x^3y^{11}-$
$\frac{435}{2}\,c_3{}^2c_7x^3y^{11}-900\,c_1{}^4c_3{}^3x^2y^{12}-1156\,c_1{}^7c_3{}^2x^2y^{12}-424\,c_3c_1{}^{10}x^2y^{12}-39\,c_3{}^2c_7x^2y^{12}-$
$97\,c_1c_3{}^4x^2y^{12}-179\,c_7c_1{}^6x^2y^{12}-45\,c_1{}^{13}x^2y^{12}-384\,c_1{}^3c_3c_7x^2y^{12}-35\,c_1{}^4c_3{}^3xy^{13}-20\,c_1{}^3c_3c_7xy^{13}-$
$5\,c_1c_3{}^4xy^{13}-c_1{}^{13}xy^{13}-11\,c_3c_1{}^{10}xy^{13}-3\,c_3{}^2c_7xy^{13}-36\,c_1{}^7c_3{}^2xy^{13}-7\,c_7c_1{}^6xy^{13}$

$+c_1{}^{14}x^{14}y+15\,c_1{}^2c_3{}^4x^{14}y+12\,c_3c_1{}^{11}x^{14}y+30\,c_1{}^4c_3c_7x^{14}y+8\,c_7c_1{}^7x^{14}y+c_7{}^2x^{14}y+56\,c_1{}^5c_3{}^3x^{14}y+$
$12\,c_1c_3{}^2c_7x^{14}y+45\,c_1{}^8c_3{}^2x^{14}y+\frac{3429}{2}\,c_1{}^8c_3{}^2x^{13}y^2+365\,c_1{}^2c_3{}^4x^{13}y^2+52\,c_1{}^{14}x^{13}y^2+$
$\frac{1081}{2}\,c_3c_1{}^{11}x^{13}y^2+\frac{417}{2}\,c_1c_3{}^2c_7x^{13}y^2+21/2\,c_7{}^2x^{13}y^2+\frac{497}{2}\,c_7c_1{}^7x^{13}y^2+\frac{3493}{2}\,c_1{}^5c_3{}^3x^{13}y^2+$
$725\,c_1{}^4c_3c_7x^{13}y^2+7943\,c_3c_1{}^{11}x^{12}y^3+1461\,c_1c_3{}^2c_7x^{12}y^3+\frac{6455}{2}\,c_1{}^2c_3{}^4x^{12}y^3+18830\,c_1{}^5c_3{}^3x^{12}y^3+$
$\frac{1729}{2}\,c_1{}^{14}x^{12}y^3+\frac{43695}{2}\,c_1{}^8c_3{}^2x^{12}y^3+6540\,c_1{}^4c_3c_7x^{12}y^3+2758\,c_7c_1{}^7x^{12}y^3+\frac{105}{2}\,c_7{}^2x^{12}y^3+$
$\frac{23469}{4}\,c_1c_3{}^2c_7x^{11}y^4+6721\,c_1{}^{14}x^{11}y^4+\frac{411369}{4}\,c_1{}^5c_3{}^3x^{11}y^4+\frac{30295}{2}\,c_1{}^2c_3{}^4x^{11}y^4+\frac{272871}{2}\,c_1{}^8c_3{}^2x^{11}y^4+$
$\frac{111529}{2}\,c_3c_1{}^{11}x^{11}y^4+\frac{127015}{4}\,c_1{}^4c_3c_7x^{11}y^4+15834\,c_7c_1{}^7x^{11}y^4+\frac{665}{4}\,c_7{}^2x^{11}y^4+\frac{1491}{4}\,c_7{}^2x^{10}y^5+$
$219714\,c_3c_1{}^{11}x^{10}y^5+\frac{3930273}{8}\,c_1{}^8c_3{}^2x^{10}y^5+\frac{177015}{4}\,c_1{}^2c_3{}^4x^{10}y^5+54474\,c_7c_1{}^7x^{10}y^5+\frac{229229}{8}\,c_1{}^{14}x^{10}y^5+$
$\frac{669879}{2}\,c_1{}^5c_3{}^3x^{10}y^5+\frac{62007}{4}\,c_1c_3{}^2c_7x^{10}y^5+\frac{192245}{2}\,c_1{}^4c_3c_7x^{10}y^5+\frac{964523}{8}\,c_7c_1{}^7x^9y^6+\frac{2499}{4}\,c_7{}^2x^9y^6+$
$\frac{115263}{4}\,c_1c_3{}^2c_7x^9y^6+\frac{1397435}{16}\,c_1{}^2c_3{}^4x^9y^6+\frac{11339755}{16}\,c_1{}^5c_3{}^3x^9y^6+\frac{1560715}{8}\,c_1{}^4c_3c_7x^9y^6+\frac{145431}{2}\,c_1{}^{14}x^9y^6+$
$\frac{8453511}{16}\,c_3c_1{}^{11}x^9y^6+\frac{17779383}{16}\,c_1{}^8c_3{}^2x^9y^6+\frac{1944855}{16}\,c_1{}^2c_3{}^4x^8y^7+\frac{13230891}{8}\,c_1{}^8c_3{}^2x^8y^7+\frac{711873}{4}\,c_7c_1{}^7x^8y^7+$
$\frac{6489087}{8}\,c_3c_1{}^{11}x^8y^7+\frac{77997}{2}\,c_1c_3{}^2c_7x^8y^7+\frac{8163477}{8}\,c_1{}^5c_3{}^3x^8y^7+275655\,c_1{}^4c_3c_7x^8y^7+\frac{3217}{4}\,c_7{}^2x^8y^7+$
$\frac{1835691}{16}\,c_1{}^{14}x^8y^7+\frac{6489087}{8}\,c_3c_1{}^{11}x^7y^8+\frac{711873}{4}\,c_7c_1{}^7x^7y^8+275655\,c_1{}^4c_3c_7x^7y^8+\frac{77997}{2}\,c_1c_3{}^2c_7x^7y^8+$
$\frac{3217}{4}\,c_7{}^2x^7y^8+\frac{1835691}{16}\,c_1{}^{14}x^7y^8+\frac{8163477}{8}\,c_1{}^5c_3{}^3x^7y^8+\frac{13230891}{8}\,c_1{}^8c_3{}^2x^7y^8+\frac{1944855}{16}\,c_1{}^2c_3{}^4x^7y^8+$
$\frac{11339755}{16}\,c_1{}^5c_3{}^3x^6y^9+\frac{1397435}{16}\,c_1{}^2c_3{}^4x^6y^9+\frac{145431}{2}\,c_1{}^{14}x^6y^9+\frac{8453511}{16}\,c_3c_1{}^{11}x^6y^9+\frac{115263}{4}\,c_1c_3{}^2c_7x^6y^9+$
$\frac{1560715}{8}\,c_1{}^4c_3c_7x^6y^9+\frac{17779383}{16}\,c_1{}^8c_3{}^2x^6y^9+\frac{964523}{8}\,c_7c_1{}^7x^6y^9+\frac{2499}{4}\,c_7{}^2x^6y^9+\frac{177015}{4}\,c_1{}^2c_3{}^4x^5y^{10}+$

$$54474\,c_7c_1{}^7x^5y^{10}+\tfrac{229229}{8}\,c_1{}^{14}x^5y^{10}+\tfrac{192245}{2}\,c_1{}^4c_3c_7x^5y^{10}+\tfrac{62007}{4}\,c_1c_3{}^2c_7x^5y^{10}+\tfrac{669879}{2}\,c_1{}^5c_3{}^3x^5y^{10}+\tfrac{1491}{4}\,c_7{}^2x^5y^{10}+\tfrac{3930273}{8}\,c_1{}^8c_3{}^2x^5y^{10}+219714\,c_3c_1{}^{11}x^5y^{10}+\tfrac{272871}{2}\,c_1{}^8c_3{}^2x^4y^{11}+15834\,c_7c_1{}^7x^4y^{11}+6721\,c_1{}^{14}x^4y^{11}+\tfrac{411369}{4}\,c_1{}^5c_3{}^3x^4y^{11}+\tfrac{665}{4}\,c_7{}^2x^4y^{11}+\tfrac{111529}{2}\,c_3c_1{}^{11}x^4y^{11}+\tfrac{30295}{2}\,c_1{}^2c_3{}^4x^4y^{11}+\tfrac{23469}{4}\,c_1c_3{}^2c_7x^4y^{11}+\tfrac{127015}{4}\,c_1{}^4c_3c_7x^4y^{11}+\tfrac{43695}{2}\,c_1{}^8c_3{}^2x^3y^{12}+6540\,c_1{}^4c_3c_7x^3y^{12}+7943\,c_3c_1{}^{11}x^3y^{12}+\tfrac{6455}{2}\,c_1{}^2c_3{}^4x^3y^{12}+\tfrac{105}{2}\,c_7{}^2x^3y^{12}+2758\,c_7c_1{}^7x^3y^{12}+18830\,c_1{}^5c_3{}^3x^3y^{12}+1461\,c_1c_3{}^2c_7x^3y^{12}+\tfrac{1729}{2}\,c_1{}^{14}x^3y^{12}+\tfrac{3429}{2}\,c_1{}^8c_3{}^2x^2y^{13}+\tfrac{417}{2}\,c_1c_3{}^2c_7x^2y^{13}+21/2\,c_7{}^2x^2y^{13}+\tfrac{3493}{2}\,c_1{}^5c_3{}^3x^2y^{13}+52\,c_1{}^{14}x^2y^{13}+\tfrac{1081}{2}\,c_3c_1{}^{11}x^2y^{13}+725\,c_1{}^4c_3c_7x^2y^{13}+365\,c_1{}^2c_3{}^4x^2y^{13}+\tfrac{497}{2}\,c_7c_1{}^7x^2y^{13}+12\,c_3c_1{}^{11}xy^{14}+c_1{}^{14}xy^{14}+30\,c_1{}^4c_3c_7xy^{14}+12\,c_1c_3{}^2c_7xy^{14}+56\,c_1{}^5c_3{}^3xy^{14}+c_7{}^2xy^{14}+15\,c_1{}^2c_3{}^4xy^{14}+8\,c_7c_1{}^7xy^{14}+45\,c_1{}^8c_3{}^2xy^{14}-c_{15}x^{15}y-55\,c_1{}^9c_3{}^2x^{15}y-84\,c_1{}^6c_3{}^3x^{15}y-c_1{}^{15}x^{15}y-35\,c_1{}^3c_3{}^4x^{15}y-9\,c_7c_1{}^8x^{15}y-3\,c_1c_7{}^2x^{15}y-13\,c_3c_1{}^{12}x^{15}y-42\,c_1{}^5c_3c_7x^{15}y-c_3{}^5x^{15}y-30\,c_1{}^2c_3{}^2c_7x^{15}y-\tfrac{2085}{2}\,c_1{}^3c_3{}^4x^{14}y^2-\tfrac{4905}{2}\,c_1{}^9c_3{}^2x^{14}y^2-\tfrac{45}{2}\,c_3{}^5x^{14}y^2-669\,c_1{}^2c_3{}^2c_7x^{14}y^2-\tfrac{1353}{2}\,c_3c_1{}^{12}x^{14}y^2-\tfrac{89}{2}\,c_1c_7{}^2x^{14}y^2-1245\,c_1{}^5c_3c_7x^{14}y^2-\tfrac{667}{2}\,c_7c_1{}^8x^{14}y^2-3122\,c_1{}^6c_3{}^3x^{14}y^2-\tfrac{119}{2}\,c_1{}^{15}x^{14}y^2-15/2\,c_{15}x^{14}y^2-\tfrac{23023}{2}\,c_3c_1{}^{12}x^{13}y^3-13503\,c_1{}^5c_3c_7x^{13}y^3-36520\,c_1{}^9c_3{}^2x^{13}y^3-35\,c_{15}x^{13}y^3-\tfrac{385}{2}\,c_3{}^5x^{13}y^3-\tfrac{2275}{2}\,c_1{}^{15}x^{13}y^3-287\,c_1c_7{}^2x^{13}y^3-4368\,c_7c_1{}^8x^{13}y^3-5775\,c_1{}^2c_3{}^2c_7x^{13}y^3-39816\,c_1{}^6c_3{}^3x^{13}y^3-\tfrac{22155}{2}\,c_1{}^3c_3{}^4x^{13}y^3-\tfrac{111147}{4}\,c_1{}^2c_3{}^2c_7x^{12}y^4-\tfrac{155487}{2}\,c_1{}^5c_3c_7x^{12}y^4-\tfrac{3639}{4}\,c_3{}^5x^{12}y^4-\tfrac{117677}{4}\,c_7c_1{}^8x^{12}y^4-\tfrac{2133515}{8}\,c_1{}^9c_3{}^2x^{12}y^4-\tfrac{81991}{8}\,c_1{}^{15}x^{12}y^4-\tfrac{492605}{8}\,c_1{}^3c_3{}^4x^{12}y^4-\tfrac{455}{4}\,c_{15}x^{12}y^4-\tfrac{8925}{8}\,c_1c_7{}^2x^{12}y^4-\tfrac{511791}{2}\,c_1{}^6c_3{}^3x^{12}y^4-94019\,c_3c_1{}^{12}x^{12}y^4-\tfrac{409409}{8}\,c_1{}^{15}x^{11}y^5-\tfrac{1107057}{4}\,c_1{}^5c_3c_7x^{11}y^5-273\,c_{15}x^{11}y^5-\tfrac{691107}{8}\,c_1{}^2c_3{}^2c_7x^{11}y^5-\tfrac{843465}{4}\,c_1{}^3c_3{}^4x^{11}y^5-\tfrac{3910809}{4}\,c_1{}^6c_3{}^3x^{11}y^5-2975\,c_1c_7{}^2x^{11}y^5-\tfrac{22179}{8}\,c_3{}^5x^{11}y^5-\tfrac{3471897}{8}\,c_3c_1{}^{12}x^{11}y^5-\tfrac{949263}{8}\,c_7c_1{}^8x^{11}y^5-\tfrac{9007515}{8}\,c_1{}^9c_3{}^2x^{11}y^5-\tfrac{46445}{8}\,c_1c_7{}^2x^{10}y^6-\tfrac{2991099}{16}\,c_1{}^2c_3{}^2c_7x^{10}y^6-\tfrac{19412687}{8}\,c_1{}^6c_3{}^3x^{10}y^6-\tfrac{3880675}{8}\,c_1{}^3c_3{}^4x^{10}y^6-\tfrac{94353}{16}\,c_3{}^5x^{10}y^6-\tfrac{1316637}{2}\,c_1{}^5c_3c_7x^{10}y^6-\tfrac{1001}{2}\,c_{15}x^{10}y^6-\tfrac{19755505}{16}\,c_3c_1{}^{12}x^{10}y^6-\tfrac{48023215}{16}\,c_1{}^9c_3{}^2x^{10}y^6-\tfrac{2467465}{16}\,c_1{}^{15}x^{10}y^6-\tfrac{4946669}{16}\,c_7c_1{}^8x^{10}y^6-\tfrac{36565}{4}\,c_3{}^5x^9y^7-\tfrac{4334661}{8}\,c_7c_1{}^8x^9y^7-\tfrac{65828301}{16}\,c_1{}^6c_3{}^3x^9y^7-8577\,c_1c_7{}^2x^9y^7-\tfrac{4705701}{16}\,c_1{}^{15}x^9y^7-\tfrac{36376197}{16}\,c_3c_1{}^{12}x^9y^7-715\,c_{15}x^9y^7-\tfrac{8731581}{8}\,c_1{}^5c_3c_7x^9y^7-786635\,c_1{}^3c_3{}^4x^9y^7-\tfrac{84986385}{16}\,c_1{}^9c_3{}^2x^9y^7-293109\,c_1{}^2c_3{}^2c_7x^9y^7-\tfrac{156561279}{32}\,c_1{}^6c_3{}^3x^8y^8-\tfrac{312081}{32}\,c_1c_7{}^2x^8y^8-\tfrac{10873797}{32}\,c_1{}^2c_3{}^2c_7x^8y^8-\tfrac{46565805}{128}\,c_1{}^{15}x^8y^8-\tfrac{410056605}{64}\,c_1{}^9c_3{}^2x^8y^8-\tfrac{1179931 65}{128}\,c_1{}^3c_3{}^4x^8y^8-\tfrac{177870033}{64}\,c_3c_1{}^{12}x^8y^8-\tfrac{675561}{64}\,c_3{}^5x^8y^8-\tfrac{6435}{8}\,c_{15}x^8y^8-\tfrac{5155599}{4}\,c_1{}^5c_3c_7x^8y^8-\tfrac{20860637}{32}\,c_7c_1{}^8x^8y^8-8577\,c_1c_7{}^2x^7y^9-786635\,c_1{}^3c_3{}^4x^7y^9-\tfrac{65828301}{16}\,c_1{}^6c_3{}^3x^7y^9-\tfrac{4334661}{8}\,c_7c_1{}^8x^7y^9-715\,c_{15}x^7y^9-\tfrac{36376197}{16}\,c_3c_1{}^{12}x^7y^9-293109\,c_1{}^2c_3{}^2c_7x^7y^9-\tfrac{36565}{4}\,c_3{}^5x^7y^9-\tfrac{84986385}{16}\,c_1{}^9c_3{}^2x^7y^9-\tfrac{8731581}{8}\,c_1{}^5c_3c_7x^7y^9-\tfrac{4705701}{16}\,c_1{}^{15}x^7y^9-\tfrac{46445}{8}\,c_1c_7{}^2x^6y^{10}-\tfrac{2991099}{16}\,c_1{}^2c_3{}^2c_7x^6y^{10}-\tfrac{1316637}{2}\,c_1{}^5c_3c_7x^6y^{10}-\tfrac{94353}{16}\,c_3{}^5x^6y^{10}-\tfrac{1001}{2}\,c_{15}x^6y^{10}-\tfrac{4946669}{16}\,c_7c_1{}^8x^6y^{10}-\tfrac{19412687}{8}\,c_1{}^6c_3{}^3x^6y^{10}-\tfrac{48023215}{16}\,c_1{}^9c_3{}^2x^6y^{10}-\tfrac{19755505}{16}\,c_3c_1{}^{12}x^6y^{10}-\tfrac{2467465}{16}\,c_1{}^{15}x^6y^{10}-\tfrac{3880675}{8}\,c_1{}^3c_3{}^4x^6y^{10}-\tfrac{949263}{8}\,c_7c_1{}^8x^5y^{11}-\tfrac{409409}{8}\,c_1{}^{15}x^5y^{11}-\tfrac{691107}{8}\,c_1{}^2c_3{}^2c_7x^5y^{11}-2975\,c_1c_7{}^2x^5y^{11}-\tfrac{9007515}{8}\,c_1{}^9c_3{}^2x^5y^{11}-273\,c_{15}x^5y^{11}-\tfrac{22179}{8}\,c_3{}^5x^5y^{11}-\tfrac{3471897}{8}\,c_3c_1{}^{12}x^5y^{11}-\tfrac{3910809}{4}\,c_1{}^6c_3{}^3x^5y^{11}-\tfrac{843465}{4}\,c_1{}^3c_3{}^4x^5y^{11}-\tfrac{1107057}{4}\,c_1{}^5c_3c_7x^5y^{11}-\tfrac{511791}{2}\,c_1{}^6c_3{}^3x^4y^{12}-\tfrac{155487}{2}\,c_1{}^5c_3c_7x^4y^{12}-\tfrac{117677}{4}\,c_7c_1{}^8x^4y^{12}-\tfrac{111147}{4}\,c_1{}^2c_3{}^2c_7x^4y^{12}-94019\,c_3c_1{}^{12}x^4y^{12}-\tfrac{3639}{4}\,c_3{}^5x^4y^{12}-\tfrac{2133515}{8}\,c_1{}^9c_3{}^2x^4y^{12}-\tfrac{8925}{8}\,c_1c_7{}^2x^4y^{12}-\tfrac{455}{4}\,c_{15}x^4y^{12}-\tfrac{81991}{8}\,c_1{}^{15}x^4y^{12}-\tfrac{492605}{8}\,c_1{}^3c_3{}^4x^4y^{12}-\tfrac{2275}{2}\,c_1{}^{15}x^3y^{13}-13503\,c_1{}^5c_3c_7x^3y^{13}-\tfrac{23023}{2}\,c_3c_1{}^{12}x^3y^{13}-35\,c_{15}x^3y^{13}-4368\,c_7c_1{}^8x^3y^{13}-\tfrac{385}{2}\,c_3{}^5x^3y^{13}-5775\,c_1{}^2c_3{}^2c_7x^3y^{13}-39816\,c_1{}^6c_3{}^3x^3y^{13}-\tfrac{22155}{2}\,c_1{}^3c_3{}^4x^3y^{13}-287\,c_1c_7{}^2x^3y^{13}-36520\,c_1{}^9c_3{}^2x^3y^{13}-669\,c_1{}^2c_3{}^2c_7x^2y^{14}-\tfrac{89}{2}\,c_1c_7{}^2x^2y^{14}-3122\,c_1{}^6c_3{}^3x^2y^{14}-\tfrac{45}{2}\,c_3{}^5x^2y^{14}-\tfrac{667}{2}\,c_7c_1{}^8x^2y^{14}-\tfrac{119}{2}\,c_1{}^{15}x^2y^{14}-\tfrac{2085}{2}\,c_1{}^3c_3{}^4x^2y^{14}-15/2\,c_{15}x^2y^{14}-1245\,c_1{}^5c_3c_7x^2y^{14}-\tfrac{1353}{2}\,c_3c_1{}^{12}x^2y^{14}-\tfrac{4905}{2}\,c_1{}^9c_3{}^2x^2y^{14}-c_{15}xy^{15}-42\,c_1{}^5c_3c_7xy^{15}-9\,c_7c_1{}^8xy^{15}-84\,c_1{}^6c_3{}^3xy^{15}-55\,c_1{}^9c_3{}^2xy^{15}-30\,c_1{}^2c_3{}^2c_7xy^{15}-c_3{}^5xy^{15}-35\,c_1{}^3c_3{}^4xy^{15}-3\,c_1c_7{}^2xy^{15}-c_1{}^{15}xy^{15}-13\,c_3c_1{}^{12}xy^{15}$$

$$14\,c_3c_1{}^{13}x^{16}y+6\,c_1c_3{}^5x^{16}y+66\,c_1{}^{10}c_3{}^2x^{16}y+10\,c_7c_1{}^9x^{16}y+120\,c_1{}^7c_3{}^3x^{16}y+70\,c_1{}^4c_3{}^4x^{16}y+6\,c_1{}^2c_7{}^2x^{16}y+2\,c_{15}c_1x^{16}y+4\,c_3{}^3c_7x^{16}y+56\,c_1{}^6c_3c_7x^{16}y+c_1{}^{16}x^{16}y+60\,c_1{}^3c_3{}^2c_7x^{16}y+\tfrac{135}{2}\,c_1{}^{16}x^{15}y^2+\tfrac{5005}{2}\,c_1{}^4c_3{}^4x^{15}y^2+\tfrac{6809}{2}\,c_1{}^{10}c_3{}^2x^{15}y^2+\tfrac{871}{2}\,c_7c_1{}^9x^{15}y^2+\tfrac{47}{2}\,c_{15}c_1x^{15}y^2+\tfrac{1667}{2}\,c_3c_1{}^{13}x^{15}y^2+\tfrac{237}{2}\,c_1{}^2c_7{}^2x^{15}y^2+1995\,c_1{}^6c_3c_7x^{15}y^2+80\,c_3{}^3c_7x^{15}y^2+1665\,c_1{}^3c_3{}^2c_7x^{15}y^2+\tfrac{335}{2}\,c_1c_3{}^5x^{15}y^2+5238\,c_1{}^7c_3{}^3x^{15}y^2+\tfrac{32515}{2}\,c_3c_1{}^{13}x^{14}y^3+\tfrac{3455}{2}\,c_1c_3{}^5x^{14}y^3+78030\,c_1{}^7c_3{}^3x^{14}y^3+1470\,c_1{}^{16}x^{14}y^3+\tfrac{295}{2}\,c_{15}c_1x^{14}y^3+650\,c_3{}^3c_7x^{14}y^3+31500\,c_1{}^4c_3{}^4x^{14}y^3+17385\,c_1{}^3c_3{}^2c_7x^{14}y^3+25620\,c_1{}^6c_3c_7x^{14}y^3+\tfrac{13295}{2}\,c_7c_1{}^9x^{14}y^3+58586\,c_1{}^{10}c_3{}^2x^{14}y^3+960\,c_1{}^2c_7{}^2x^{14}y^3+\tfrac{12247}{4}\,c_3{}^3c_7x^{13}y^4+\tfrac{36141}{8}\,c_1{}^2c_7{}^2x^{13}y^4+152815\,c_3c_1{}^{13}x^{13}y^4+\tfrac{121485}{8}\,c_1{}^{16}x^{13}y^4+\tfrac{19265}{2}\,c_1c_3{}^5x^{13}y^4+\tfrac{2415}{4}\,c_{15}c_1x^{13}y^4+\tfrac{1642025}{8}\,c_1{}^4c_3{}^4x^{13}y^4+583707\,c_1{}^7c_3{}^3x^{13}y^4+\tfrac{207767}{4}\,c_7c_1{}^9x^{13}y^4+172865\,c_1{}^6c_3c_7x^{13}y^4+99115\,c_1{}^3c_3{}^2c_7x^{13}y^4+\tfrac{3958823}{8}\,c_1{}^{10}c_3{}^2x^{13}y^4+\tfrac{19381615}{8}\,c_1{}^{10}c_3{}^2x^{12}y^5+\tfrac{485891}{2}\,c_7c_1{}^9x^{12}y^5+\tfrac{3266627}{4}\,c_3c_1{}^{13}x^{12}y^5+\tfrac{719955}{2}\,c_1{}^3c_3{}^2c_7x^{12}y^5+\tfrac{1433509}{2}\,c_1{}^6c_3c_7x^{12}y^5+9644\,c_3{}^3c_7x^{12}y^5+\tfrac{7007}{4}\,c_{15}c_1x^{12}y^5+34120\,c_1c_3{}^5x^{12}y^5+2590794\,c_1{}^7c_3{}^3x^{12}y^5+\tfrac{350805}{4}\,c_1{}^{16}x^{12}y^5+817495\,c_1{}^4c_3{}^4x^{12}y^5+\tfrac{113799}{8}\,c_1{}^2c_7{}^2x^{12}y^5+\tfrac{120365905}{16}\,c_1{}^{10}c_3{}^2x^{11}y^6+\tfrac{14432115}{16}\,c_1{}^3c_3{}^2c_7x^{11}y^6+\tfrac{8708105}{4}\,c_1{}^4c_3{}^4x^{11}y^6+\tfrac{174675}{8}\,c_3{}^3c_7x^{11}y^6+\tfrac{1337403}{16}\,c_1c_3{}^5x^{11}y^6+\tfrac{59768217}{8}\,c_1{}^7c_3{}^3x^{11}y^6+\tfrac{4945941}{16}\,c_1{}^{16}x^{11}y^6+\tfrac{257775}{8}\,c_1{}^2c_7{}^2x^{11}y^6+\tfrac{11786285}{16}\,c_7c_1{}^9x^{11}y^6+\tfrac{15847181}{8}\,c_1{}^6c_3c_7x^{11}y^6+\tfrac{43391491}{16}\,c_3c_1{}^{13}x^{11}y^6+\tfrac{7553}{2}\,c_{15}c_1x^{11}y^6+\tfrac{94289195}{16}\,c_3c_1{}^{13}x^{10}y^7+\tfrac{437055}{8}\,c_1{}^2c_7{}^2x^{10}y^7+\tfrac{26091515}{16}\,c_1{}^3c_3{}^2c_7x^{10}y^7+\tfrac{30562301}{8}\,c_1{}^6c_3c_7x^{10}y^7+\tfrac{12441}{2}\,c_{15}c_1x^{10}y^7+\tfrac{249910749}{16}\,c_1{}^{10}c_3{}^2x^{10}y^7+\tfrac{65334465}{16}\,c_1{}^4c_3{}^4x^{10}y^7+\tfrac{295845}{8}\,c_3{}^3c_7x^{10}y^7+\tfrac{118103211}{8}\,c_1{}^7c_3{}^3x^{10}y^7+\tfrac{2797795}{4}\,c_1{}^{16}x^{10}y^7+\tfrac{24209581}{16}\,c_7c_1{}^9x^{10}y^7+\tfrac{2377875}{16}\,c_1c_3{}^5x^{10}y^7+\tfrac{12606455}{64}\,c_1c_3{}^5x^9y^8+\tfrac{63635}{8}\,c_{15}c_1x^9y^8+\tfrac{552249555}{64}\,c_3c_1{}^{13}x^9y^8+\tfrac{133802955}{128}\,c_1{}^{16}x^9y^8+\tfrac{69773625}{32}\,c_1{}^3c_3{}^2c_7x^9y^8+\tfrac{84393379}{16}\,c_1{}^6c_3c_7x^9y^8+\tfrac{1430414007}{64}\,c_1{}^{10}c_3{}^2x^9y^8+\tfrac{659451159}{32}\,c_1{}^7c_3{}^3x^9y^8+\tfrac{766273}{16}\,c_3{}^3c_7x^9y^8+\tfrac{69018621}{32}\,c_7c_1{}^9x^9y^8+\tfrac{2265963}{32}\,c_1{}^2c_7{}^2x^9y^8+\tfrac{711075715}{128}\,c_1{}^4c_3{}^4x^9y^8+\tfrac{12606455}{64}\,c_1c_3{}^5x^8y^9+\tfrac{63635}{8}\,c_{15}c_1x^8y^9+\tfrac{2265963}{32}\,c_1{}^2c_7{}^2x^8y^9+\tfrac{69773625}{32}\,c_1{}^3c_3{}^2c_7x^8y^9+\tfrac{1430414007}{64}\,c_1{}^{10}c_3{}^2x^8y^9+\tfrac{84393379}{16}\,c_1{}^6c_3c_7x^8y^9+\tfrac{69018621}{32}\,c_7c_1{}^9x^8y^9+\tfrac{552249555}{64}\,c_3c_1{}^{13}x^8y^9+\tfrac{711075715}{128}\,c_1{}^4c_3{}^4x^8y^9+\tfrac{659451159}{32}\,c_1{}^7c_3{}^3x^8y^9+\tfrac{766273}{16}\,c_3{}^3c_7x^8y^9+\tfrac{133802955}{128}\,c_1{}^{16}x^8y^9+\tfrac{2797795}{4}\,c_1{}^{16}x^7y^{10}+\tfrac{65334465}{16}\,c_1{}^4c_3{}^4x^7y^{10}+\tfrac{30562301}{8}\,c_1{}^6c_3c_7x^7y^{10}+\tfrac{26091515}{16}\,c_1{}^3c_3{}^2c_7x^7y^{10}+\tfrac{2377875}{16}\,c_1c_3{}^5x^7y^{10}+\tfrac{295845}{8}\,c_3{}^3c_7x^7y^{10}+\tfrac{94289195}{16}\,c_3c_1{}^{13}x^7y^{10}+\tfrac{118103211}{8}\,c_1{}^7c_3{}^3x^7y^{10}+\tfrac{12441}{2}\,c_{15}c_1x^7y^{10}+\tfrac{24209581}{8}\,c_7c_1{}^9x^7y^{10}+\tfrac{437055}{8}\,c_1{}^2c_7{}^2x^7y^{10}+\tfrac{249910749}{16}\,c_1{}^{10}c_3{}^2x^7y^{10}+\tfrac{7553}{2}\,c_{15}c_1x^6y^{11}+\tfrac{11786285}{16}\,c_7c_1{}^9x^6y^{11}+\tfrac{15847181}{8}\,c_1{}^6c_3c_7x^6y^{11}+\tfrac{59768217}{8}\,c_1{}^7c_3{}^3x^6y^{11}+\tfrac{1337403}{16}\,c_1c_3{}^5x^6y^{11}+\tfrac{43391491}{16}\,c_3c_1{}^{13}x^6y^{11}+\tfrac{120365905}{16}\,c_1{}^{10}c_3{}^2x^6y^{11}+\tfrac{174675}{8}\,c_3{}^3c_7x^6y^{11}+\tfrac{257775}{8}\,c_1{}^2c_7{}^2x^6y^{11}+\tfrac{8708105}{4}\,c_1{}^4c_3{}^4x^6y^{11}+\tfrac{14432115}{16}\,c_1{}^3c_3{}^2c_7x^6y^{11}+\tfrac{4945941}{16}\,c_1{}^{16}x^6y^{11}+\tfrac{3266627}{4}\,c_3c_1{}^{13}x^5y^{12}+\tfrac{1433509}{2}\,c_1{}^6c_3c_7x^5y^{12}+\tfrac{113799}{8}\,c_1{}^2c_7{}^2x^5y^{12}+9644\,c_3{}^3c_7x^5y^{12}+\tfrac{485891}{2}\,c_7c_1{}^9x^5y^{12}+2590794\,c_1{}^7c_3{}^3x^5y^{12}+\tfrac{350805}{4}\,c_1{}^{16}x^5y^{12}+\tfrac{7007}{4}\,c_{15}c_1x^5y^{12}+817495\,c_1{}^4c_3{}^4x^5y^{12}+\tfrac{719955}{2}\,c_1{}^3c_3{}^2c_7x^5y^{12}+\tfrac{19381615}{8}\,c_1{}^{10}c_3{}^2x^5y^{12}+34120\,c_1c_3{}^5x^5y^{12}+99115\,c_1{}^3c_3{}^2c_7x^4y^{13}+\tfrac{2415}{4}\,c_{15}c_1x^4y^{13}+\tfrac{121485}{8}\,c_1{}^{16}x^4y^{13}+\tfrac{36141}{8}\,c_1{}^2c_7{}^2x^4y^{13}+\tfrac{1642025}{8}\,c_1{}^4c_3{}^4x^4y^{13}+\tfrac{3958823}{8}\,c_1{}^{10}c_3{}^2x^4y^{13}+\tfrac{19265}{2}\,c_1c_3{}^5x^4y^{13}+172865\,c_1{}^6c_3c_7x^4y^{13}+\tfrac{12247}{4}\,c_3{}^3c_7x^4y^{13}+\tfrac{207767}{4}\,c_7c_1{}^9x^4y^{13}+583707\,c_1{}^7c_3{}^3x^4y^{13}+152815\,c_3c_1{}^{13}x^4y^{13}+\tfrac{13295}{2}\,c_7c_1{}^9x^3y^{14}+960\,c_1{}^2c_7{}^2x^3y^{14}+58586\,c_1{}^{10}c_3{}^2x^3y^{14}+1470\,c_1{}^{16}x^3y^{14}+25620\,c_1{}^6c_3c_7x^3y^{14}+\tfrac{295}{2}\,c_{15}c_1x^3y^{14}+31500\,c_1{}^4c_3{}^4x^3y^{14}+\tfrac{32515}{2}\,c_3c_1{}^{13}x^3y^{14}+\tfrac{3455}{2}\,c_1c_3{}^5x^3y^{14}+650\,c_3{}^3c_7x^3y^{14}+78030\,c_1{}^7c_3{}^3x^3y^{14}+17385\,c_1{}^3c_3{}^2c_7x^3y^{14}+\tfrac{237}{2}\,c_1{}^2c_7{}^2x^2y^{15}+\tfrac{1667}{2}\,c_3c_1{}^{13}x^2y^{15}+\tfrac{47}{2}\,c_{15}c_1x^2y^{15}+5238\,c_1{}^7c_3{}^3x^2y^{15}+1665\,c_1{}^3c_3{}^2c_7x^2y^{15}+\tfrac{135}{2}\,c_1{}^{16}x^2y^{15}+\tfrac{6809}{2}\,c_1{}^{10}c_3{}^2x^2y^{15}+1995\,c_1{}^6c_3c_7x^2y^{15}+\tfrac{335}{2}\,c_1c_3{}^5x^2y^{15}+\tfrac{871}{2}\,c_7c_1{}^9x^2y^{15}+80\,c_3{}^3c_7x^2y^{15}+\tfrac{5005}{2}\,c_1{}^4c_3{}^4x^2y^{15}+2\,c_{15}c_1xy^{16}+4\,c_3{}^3c_7xy^{16}+70\,c_1{}^4c_3{}^4xy^{16}+66\,c_1{}^{10}c_3{}^2xy^{16}+60\,c_1{}^3c_3{}^2c_7xy^{16}+c_1{}^{16}xy^{16}+6\,c_1{}^2c_7{}^2xy^{16}+6\,c_1c_3{}^5xy^{16}+14\,c_3c_1{}^{13}xy^{16}+120\,c_1{}^7c_3{}^3xy^{16}+10\,c_7c_1{}^9xy^{16}+56\,c_1{}^6c_3c_7xy^{16}$$

Some values of the n-series for $F_{BP}(x,y)$ at $p=2$ are

$$[2]_{BP}(x) = (2\,x - c_1 x^2 + 2\,{c_1}^2 x^3 + (-9/2\,{c_1}^3 - 7/2\,c_3)x^4 + (31\,{c_1}^4 + 23\,c_3 c_1 + 32\,c_1(-5/8\,{c_1}^3 - 1/4\,c_3))x^5 + (24\,{c_1}^2(-5/8\,{c_1}^3 - 1/4\,c_3) - \tfrac{225}{2}\,c_3{c_1}^2 + 1/2\,{c_1}^2({c_1}^3 + 6\,c_3) - 84\,{c_1}^5 + 80\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)c_1)x^6 + (80\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1){c_1}^2 + 192\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2)c_1 + 264\,{c_1}^6 + 483\,c_3{c_1}^3 + 32\,{c_3}^2 + (-5/8\,{c_1}^3 - 1/4\,c_3)(16\,c_3 + 8\,{c_1}^3))x^7 + ((\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)(40\,c_3 + 40\,{c_1}^3) - \tfrac{127}{4}\,c_7 + 240\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2){c_1}^2 - \tfrac{7917}{4}\,c_3{c_1}^4 - \tfrac{2881}{8}\,c_1{c_3}^2 + 448\,(\tfrac{33}{16}\,{c_1}^6 + \tfrac{15}{4}\,c_3{c_1}^3 + 1/4\,{c_3}^2)c_1 - 858\,{c_1}^7 + (-5/8\,{c_1}^3 - 1/4\,c_3)(24\,c_3 c_1 + {c_1}^4))x^8 + O(x^9))$$

$$[3]_{BP}(x) = (3\,x - 3\,c_1 x^2 + 9\,{c_1}^2 x^3 + (-\tfrac{63}{2}\,{c_1}^3 - \tfrac{39}{2}\,c_3)x^4 + (\tfrac{891}{4}\,{c_1}^4 + 180\,c_3 c_1 + 162\,c_1(-5/8\,{c_1}^3 - 1/4\,c_3))x^5 + (1/2\,{c_1}^2(\tfrac{27}{8}\,{c_1}^3 + \tfrac{81}{4}\,c_3) + \tfrac{1215}{2}\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)c_1 - \tfrac{15309}{16}\,{c_1}^5 - \tfrac{10215}{8}\,c_3{c_1}^2 + \tfrac{243}{2}\,{c_1}^2(-5/8\,{c_1}^3 - 1/4\,c_3))x^6 + (\tfrac{65691}{8}\,c_3{c_1}^3 + \tfrac{1215}{2}\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1){c_1}^2 + 2187\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2)c_1 + (-5/8\,{c_1}^3 - 1/4\,c_3)(\tfrac{81}{2}\,{c_1}^3 + 81\,c_3) + \tfrac{72171}{16}\,{c_1}^6 + \tfrac{2187}{4}\,{c_3}^2)x^7 + (-\tfrac{2814669}{128}\,{c_1}^7 - \tfrac{3247533}{64}\,c_3{c_1}^4 - \tfrac{147627}{16}\,c_1{c_3}^2 - \tfrac{3279}{4}\,c_7 + (\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)(\tfrac{1215}{4}\,{c_1}^3 + \tfrac{1215}{4}\,c_3) + \tfrac{10935}{4}\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2){c_1}^2 + (-5/8\,{c_1}^3 - 1/4\,c_3)(\tfrac{243}{2}\,c_3 c_1 + \tfrac{81}{16}\,{c_1}^4) + \tfrac{15309}{2}\,(\tfrac{33}{16}\,{c_1}^6 + \tfrac{15}{4}\,c_3{c_1}^3 + 1/4\,{c_3}^2)c_1)x^8 + O(x^9))$$

$$[4]_{BP}(x) = (4\,x - 6\,c_1 x^2 + 24\,{c_1}^2 x^3 + (-114\,{c_1}^3 - 63\,c_3)x^4 + (920\,{c_1}^4 + 764\,c_3 c_1 + 512\,c_1(-5/8\,{c_1}^3 - 1/4\,c_3))x^5 + (1/2\,{c_1}^2(8\,{c_1}^3 + 48\,c_3) + 2560\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)c_1 - 5376\,{c_1}^5 - 7170\,c_3{c_1}^2 + 384\,{c_1}^2(-5/8\,{c_1}^3 - 1/4\,c_3))x^6 + (61464\,c_3{c_1}^3 + 2560\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1){c_1}^2 + 12288\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2)c_1 + (-5/8\,{c_1}^3 - 1/4\,c_3)(128\,{c_1}^3 + 256\,c_3) + 33792\,{c_1}^6 + 4096\,{c_3}^2)x^7 + (-219648\,{c_1}^7 - 506874\,c_3{c_1}^4 - \tfrac{184321}{2}\,c_1{c_3}^2 - \tfrac{16383}{2}\,c_7 + (\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)(1280\,{c_1}^3 + 1280\,c_3) + 15360\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2){c_1}^2 + (-5/8\,{c_1}^3 - 1/4\,c_3)(384\,c_3 c_1 + 16\,{c_1}^4) + 57344\,(\tfrac{33}{16}\,{c_1}^6 + \tfrac{15}{4}\,c_3{c_1}^3 + 1/4\,{c_3}^2)c_1)x^8 + O(x^9))$$

$$[5]_{BP}(x) = (5\,x - 10\,c_1 x^2 + 50\,{c_1}^2 x^3 + (-300\,{c_1}^3 - 155\,c_3)x^4 + (\tfrac{11125}{4}\,{c_1}^4 + \tfrac{4675}{2}\,c_3 c_1 + 1250\,c_1(-5/8\,{c_1}^3 - 1/4\,c_3))x^5 + (1/2\,{c_1}^2(\tfrac{125}{8}\,{c_1}^3 + \tfrac{375}{4}\,c_3) + \tfrac{15625}{2}\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)c_1 - \tfrac{328125}{16}\,{c_1}^5 - \tfrac{218775}{8}\,c_3{c_1}^2 + \tfrac{1875}{2}\,{c_1}^2(-5/8\,{c_1}^3 - 1/4\,c_3))x^6 + (\tfrac{2344125}{8}\,c_3{c_1}^3 + \tfrac{15625}{2}\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1){c_1}^2 + 46875\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2)c_1 + (-5/8\,{c_1}^3 - 1/4\,c_3)(\tfrac{625}{2}\,{c_1}^3 + 625\,c_3) + \tfrac{2578125}{16}\,{c_1}^6 + \tfrac{78125}{4}\,{c_3}^2)x^7 + (-\tfrac{167578125}{128}\,{c_1}^7 - \tfrac{193358625}{64}\,c_3{c_1}^4 - \tfrac{8789075}{16}\,c_1{c_3}^2 - \tfrac{97655}{2}\,c_7 + (\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)(\tfrac{15625}{4}\,{c_1}^3 + \tfrac{15625}{4}\,c_3) + \tfrac{234375}{4}\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2){c_1}^2 + (-5/8\,{c_1}^3 - 1/4\,c_3)(\tfrac{1875}{2}\,c_3 c_1 + \tfrac{625}{16}\,{c_1}^4) + \tfrac{546875}{2}\,(\tfrac{33}{16}\,{c_1}^6 + \tfrac{15}{4}\,c_3{c_1}^3 + 1/4\,{c_3}^2)c_1)x^8 + O(x^9))$$

$$[6]_{BP}(x) = (6\,x - 15\,c_1 x^2 + 90\,{c_1}^2 x^3 + (-\tfrac{1305}{2}\,{c_1}^3 - \tfrac{645}{2}\,c_3)x^4 + (6885\,{c_1}^4 + 5823\,c_3 c_1 + 2592\,c_1(-5/8\,{c_1}^3 - 1/4\,c_3))x^5 + (1/2\,{c_1}^2(27\,{c_1}^3 + 162\,c_3) + 19440\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)c_1 - 61236\,{c_1}^5 - \tfrac{163305}{2}\,c_3{c_1}^2 + 1944\,{c_1}^2(-5/8\,{c_1}^3 - 1/4\,c_3))x^6 + (1049841\,c_3{c_1}^3 + 19440\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1){c_1}^2 + 139968\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2)c_1 + (-5/8\,{c_1}^3 - 1/4\,c_3)(648\,{c_1}^3 + 1296\,c_3) + 577368\,{c_1}^6 + 69984\,{c_3}^2)x^7 + (-5629338\,{c_1}^7 - \tfrac{51963039}{4}\,c_3{c_1}^4 - \tfrac{18895689}{8}\,c_1{c_3}^2 - \tfrac{839805}{4}\,c_7 + (\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)(9720\,{c_1}^3 + 9720\,c_3) + 174960\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2){c_1}^2 + (-5/8\,{c_1}^3 - 1/4\,c_3)(1944\,c_3 c_1 + 81\,{c_1}^4) + 979776\,(\tfrac{33}{16}\,{c_1}^6 + \tfrac{15}{4}\,c_3{c_1}^3 + 1/4\,{c_3}^2)c_1)x^8 + O(x^9))$$

$$[7]_{BP}(x) = (7\,x - 21\,c_1 x^2 + 147\,{c_1}^2 x^3 + (-\tfrac{2499}{2}\,{c_1}^3 - \tfrac{1197}{2}\,c_3)x^4 + (\tfrac{59339}{4}\,{c_1}^4 + 12593\,c_3 c_1 + 4802\,c_1(-5/8\,{c_1}^3 - 1/4\,c_3))x^5 + (1/2\,{c_1}^2(\tfrac{343}{8}\,{c_1}^3 + \tfrac{1029}{4}\,c_3) + \tfrac{84035}{2}\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)c_1 - \tfrac{2470629}{16}\,{c_1}^5 - \tfrac{1647135}{8}\,c_3{c_1}^2 + \tfrac{7203}{2}\,{c_1}^2(-5/8\,{c_1}^3 - 1/4\,c_3))x^6 + (\tfrac{24707319}{8}\,c_3{c_1}^3 + \tfrac{84035}{2}\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1){c_1}^2 + 352947\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2)c_1 + (-5/8\,{c_1}^3 - 1/4\,c_3)(\tfrac{2401}{2}\,{c_1}^3 + 2401\,c_3) + \tfrac{27176919}{16}\,{c_1}^6 + \tfrac{823543}{4}\,{c_3}^2)x^7 + (-\tfrac{2473099629}{128}\,{c_1}^7 - \tfrac{2853574437}{64}\,c_3{c_1}^4 - \tfrac{129708047}{16}\,c_1{c_3}^2 - \tfrac{2882397}{4}\,c_7 + (\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)(\tfrac{84035}{4}\,{c_1}^3 + \tfrac{84035}{4}\,c_3) + \tfrac{1764735}{4}\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2){c_1}^2 + (-5/8\,{c_1}^3 - 1/4\,c_3)(\tfrac{7203}{2}\,c_3 c_1 + \tfrac{2401}{16}\,{c_1}^4) + \tfrac{5764801}{2}\,(\tfrac{33}{16}\,{c_1}^6 + \tfrac{15}{4}\,c_3{c_1}^3 + 1/4\,{c_3}^2)c_1)x^8 + O(x^9))$$

$$[8]_{BP}(x) = (8\,x - 28\,c_1 x^2 + 224\,{c_1}^2 x^3 + (-2184\,{c_1}^3 - 1022\,c_3)x^4 + (28864\,{c_1}^4 + 24560\,c_3 c_1 + 8192\,c_1(-5/8\,{c_1}^3 - 1/4\,c_3))x^5 + (1/2\,{c_1}^2(64\,{c_1}^3 + 384\,c_3) + 81920\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)c_1 - 344064\,{c_1}^5 - 458760\,c_3{c_1}^2 + 6144\,{c_1}^2(-5/8\,{c_1}^3 - 1/4\,c_3))x^6 + (7864512\,c_3{c_1}^3 + 81920\,(\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1){c_1}^2 + 786432\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2)c_1 + (-5/8\,{c_1}^3 - 1/4\,c_3)(2048\,{c_1}^3 + 4096\,c_3) + 4325376\,{c_1}^6 + 524288\,{c_3}^2)x^7 + (-56229888\,{c_1}^7 - 129761232\,c_3{c_1}^4 - 23592962\,c_1{c_3}^2 - 2097151\,c_7 + (\tfrac{7}{8}\,{c_1}^4 + 3/4\,c_3 c_1)(40960\,{c_1}^3 + 40960\,c_3) + 983040\,(-\tfrac{21}{16}\,{c_1}^5 - 7/4\,c_3{c_1}^2){c_1}^2 + (-5/8\,{c_1}^3 - 1/4\,c_3)(6144\,c_3 c_1 + 256\,{c_1}^4) + 7340032\,(\tfrac{33}{16}\,{c_1}^6 + \tfrac{15}{4}\,c_3{c_1}^3 + 1/4\,{c_3}^2)c_1)x^8 + O(x^9))$$

7.2. $F_V(x,y)$ **at** $p=2$ **over** $\mathbb{Z}[V]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> lambda[0]:=1:
> L:=(m,n)->{ seq(p*lambda[j]=add(lambda[i]*v[j-i]^(p^i),
  i=0..(j-1)),j=m..n) };
> # the inputs m and n are the lower and upper bounds for the
> # subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> assign(expand(%));
> p:=2:
> m:=17: # the highest degree on x in the logarithm
> q:=6: # the number of lambda[i]'s in the logarithm,
> # so that we know the logarithm to degree x^(p^q)
> f_V:=x->sum(lambda[i]*x^(p^i),i=0..q);
> f_V(x);
> latex(%);
> log_V:=powpoly(f_V(x),x);
> tpsform(log_V,x);
> exp_V:=reversion(log_V);
> tpsform(exp_V,x);
> e_V:=x->simplify(convert(tpsform(exp_V,x,m+1),polynom));
> F_V:=(x,y)->sort(simplify(mtaylor(subs(z=f_V(x)+f_V(y),
  e_V(z)), [x,y],m+1)),[x,y]);
> F_V(x,y);
> latex(%);
```

The results of these computations are that the logarithm $\log_V(x)$ at $p=2$ equals

$$x + 1/2\,v_1x^2 + (1/2\,v_2 + 1/4\,{v_1}^3)x^4 + (1/2\,v_3 + 1/4\,v_1v_2^2 + 1/4\,{v_1}^4v_2 + 1/8\,{v_1}^7)x^8 + (1/2\,v_4 + 1/4\,v_1{v_3}^2 + 1/4\,{v_2}^5 + 1/8\,{v_2}^4{v_1}^3 + 1/4\,{v_1}^8v_3 + 1/8\,{v_1}^9{v_2}^2 + 1/8\,{v_1}^{12}v_2 + 1/16\,{v_1}^{15})x^{16} + (1/2\,v_5 + 1/4\,v_1{v_4}^2 + 1/4\,{v_3}^4v_2 + 1/8\,{v_3}^4{v_1}^3 + 1/4\,{v_2}^8v_3 + 1/8\,{v_2}^{10}v_1 + 1/8\,{v_2}^9{v_1}^4 + 1/16\,{v_2}^8{v_1}^7 + 1/4\,{v_1}^{16}v_4 + 1/8\,{v_1}^{17}{v_3}^2 + 1/8\,{v_1}^{16}{v_2}^5 + 1/16\,{v_1}^{19}{v_2}^4 + 1/8\,{v_1}^{24}v_3 + 1/16\,{v_1}^{25}{v_2}^2 + 1/16\,{v_1}^{28}v_2 + 1/32\,{v_1}^{31})x^{32} + (1/8\,{v_1}^{32}{v_2}^8v_3 + 1/8\,{v_2}^{16}{v_1}^8v_3 + 1/2\,v_6 + 1/8\,{v_3}^8v_1{v_2}^2 + 1/8\,{v_2}^{16}v_1{v_3}^2 + 1/8\,{v_3}^8{v_1}^4v_2 + 1/8\,{v_1}^{32}{v_3}^4v_2 + 1/16\,{v_1}^{33}{v_2}^{10} + 1/16\,{v_1}^{36}{v_2}^9 + 1/16\,{v_1}^{49}{v_3}^2 + 1/16\,{v_1}^{48}{v_2}^5 + 1/32\,{v_1}^{51}{v_2}^4 + 1/16\,{v_1}^{56}v_3 + 1/32\,{v_1}^{57}{v_2}^2 + 1/16\,{v_3}^8{v_1}^7 + 1/4\,v_1{v_5}^2 + 1/4\,{v_4}^4v_2 + 1/4\,{v_1}^{32}v_5 + 1/4\,{v_2}^{16}v_4 + 1/4\,{v_3}^9 + 1/32\,{v_1}^{39}{v_2}^8 + 1/8\,{v_1}^{48}v_4 + 1/32\,{v_1}^{60}v_2 + 1/16\,{v_2}^{20}{v_1}^3 + 1/32\,{v_2}^{16}{v_1}^{15} + 1/16\,{v_2}^{18}{v_1}^9 + 1/16\,{v_2}^{17}{v_1}^{12} + 1/16\,{v_1}^{35}{v_3}^4 + 1/8\,{v_2}^{21} + \tfrac{1}{64}\,{v_1}^{63} + 1/8\,{v_4}^4{v_1}^3 + 1/8\,{v_1}^{33}{v_4}^2)x^{64}$$

and the formal group law $F_V(x,y)$ at $p=2$ equals

$$x+y$$

$$-v_1xy$$

$$+{v_1}^2x^2y + {v_1}^2xy^2$$

$$-2\,{v_1}^3x^3y - 2\,v_2x^3y - 3\,v_2x^2y^2 - 4\,{v_1}^3x^2y^2 - 2\,v_2xy^3 - 2\,{v_1}^3xy^3$$

$$+3\,{v_1}^4x^4y + 4\,v_1v_2x^4y + 11\,v_1v_2x^3y^2 + 10\,{v_1}^4x^3y^2 + 10\,{v_1}^4x^2y^3 + 11\,v_1v_2x^2y^3 + 4\,v_1v_2xy^4 + 3\,{v_1}^4xy^4$$

$$-6\,{v_1}^2v_2x^5y - 4\,{v_1}^5x^5y - 21\,{v_1}^5x^4y^2 - 28\,{v_1}^2v_2x^4y^2 - 34\,{v_1}^5x^3y^3 - 43\,{v_1}^2v_2x^3y^3 - 28\,{v_1}^2v_2x^2y^4 - 21\,{v_1}^5x^2y^4 - 4\,{v_1}^5xy^5 - 6\,{v_1}^2v_2xy^5$$

$$+4\,{v_2}^2x^6y + 12\,{v_1}^3v_2x^6y + 6\,{v_1}^6x^6y + 75\,{v_1}^3v_2x^5y^2 + 18\,{v_2}^2x^5y^2 + 43\,{v_1}^6x^5y^2 + 101\,{v_1}^6x^4y^3 + 164\,{v_1}^3v_2x^4y^3 + 34\,{v_2}^2x^4y^3 + 164\,{v_1}^3v_2x^3y^4 + 34\,{v_2}^2x^3y^4 + 101\,{v_1}^6x^3y^4 + 43\,{v_1}^6x^2y^5 + 18\,{v_2}^2x^2y^5 + 75\,{v_1}^3v_2x^2y^5 + 4\,{v_2}^2xy^6 + 6\,{v_1}^6xy^6 + 12\,{v_1}^3v_2xy^6$$

$$-14\,v_1{v_2}^2x^7y - 24\,{v_1}^4v_2x^7y - 10\,{v_1}^7x^7y - 4\,v_3x^7y - 190\,{v_1}^4v_2x^6y^2 - 14\,v_3x^6y^2 - 89\,v_1{v_2}^2x^6y^2 - 88\,{v_1}^7x^6y^2 - 28\,v_3x^5y^3 - 275\,{v_1}^7x^5y^3 - 226\,v_1{v_2}^2x^5y^3 - 551\,{v_1}^4v_2x^5y^3 - 394\,{v_1}^7x^4y^4 - 769\,{v_1}^4v_2x^4y^4 - 35\,v_3x^4y^4 - 302\,v_1{v_2}^2x^4y^4 - 551\,{v_1}^4v_2x^3y^5 - 28\,v_3x^3y^5 - 226\,v_1{v_2}^2x^3y^5 - 275\,{v_1}^7x^3y^5 - 88\,{v_1}^7x^2y^6 - 89\,v_1{v_2}^2x^2y^6 - 14\,v_3x^2y^6 - 190\,{v_1}^4v_2x^2y^6 - 4\,v_3xy^7 - 10\,{v_1}^7xy^7 - 24\,{v_1}^4v_2xy^7 - 14\,v_1{v_2}^2xy^7$$

$$+40\,{v_1}^5v_2x^8y + 8\,v_1v_3x^8y + 15\,{v_1}^8x^8y + 28\,{v_1}^2{v_2}^2x^8y + 169\,{v_1}^8x^7y^2 + 420\,{v_1}^5v_2x^7y^2 + 257\,{v_1}^2{v_2}^2x^7y^2 + 46\,v_1v_3x^7y^2 + 126\,v_1v_3x^6y^3 + 680\,{v_1}^8x^6y^3 + 1586\,{v_1}^5v_2x^6y^3 + 879\,{v_1}^2{v_2}^2x^6y^3 + 1543\,{v_1}^2{v_2}^2x^5y^4 + 1303\,{v_1}^8x^5y^4 + 203\,v_1v_3x^5y^4 + 2933\,{v_1}^5v_2x^5y^4 + 203\,v_1v_3x^4y^5 + 1543\,{v_1}^2{v_2}^2x^4y^5 + 2933\,{v_1}^5v_2x^4y^5 + 1303\,{v_1}^8x^4y^5 + 1586\,{v_1}^5v_2x^3y^6 + 126\,v_1v_3x^3y^6 + 680\,{v_1}^8x^3y^6 + 879\,{v_1}^2{v_2}^2x^3y^6 + 169\,{v_1}^8x^2y^7 + 420\,{v_1}^5v_2x^2y^7 + 257\,{v_1}^2{v_2}^2x^2y^7 + 46\,v_1v_3x^2y^7 + 8\,v_1v_3xy^8 + 40\,{v_1}^5v_2xy^8 + 15\,{v_1}^8xy^8 + 28\,{v_1}^2{v_2}^2xy^8$$

$$-12\,{v_1}^2v_3x^9y - 66\,{v_1}^6v_2x^9y - 22\,{v_1}^9x^9y - 58\,{v_1}^3{v_2}^2x^9y - 8\,{v_2}^3x^9y - 72\,{v_2}^3x^8y^2 - 880\,{v_1}^6v_2x^8y^2 - 104\,{v_1}^2v_3x^8y^2 - 312\,{v_1}^9x^8y^2 - 688\,{v_1}^3{v_2}^2x^8y^2 - 1573\,{v_1}^9x^7y^3 - 3001\,{v_1}^3{v_2}^2x^7y^3 - 4192\,{v_1}^6v_2x^7y^3 - 260\,{v_2}^3x^7y^3 - 382\,{v_1}^2v_3x^7y^3 - 6707\,{v_1}^3{v_2}^2x^6y^4 - 791\,{v_1}^2v_3x^6y^4 - 9900\,{v_1}^6v_2x^6y^4 - 523\,{v_2}^3x^6y^4 - 3861\,{v_1}^9x^6y^4 - 654\,{v_2}^3x^5y^5 - 13042\,{v_1}^6v_2x^5y^5 - 5156\,{v_1}^9x^5y^5 - 1001\,{v_1}^2v_3x^5y^5 - 8671\,{v_1}^3{v_2}^2x^5y^5 - 791\,{v_1}^2v_3x^4y^6 - 9900\,{v_1}^6v_2x^4y^6 - 3861\,{v_1}^9x^4y^6 - 6707\,{v_1}^3{v_2}^2x^4y^6 - 523\,{v_2}^3x^4y^6 - 1573\,{v_1}^9x^3y^7 - 382\,{v_1}^2v_3x^3y^7 - 3001\,{v_1}^3{v_2}^2x^3y^7 - 260\,{v_2}^3x^3y^7 - 4192\,{v_1}^6v_2x^3y^7 - 104\,{v_1}^2v_3x^2y^8 - 880\,{v_1}^6v_2x^2y^8 - 312\,{v_1}^9x^2y^8 - 72\,{v_2}^3x^2y^8 - 688\,{v_1}^3{v_2}^2x^2y^8 - 8\,{v_2}^3xy^9 - 22\,{v_1}^9xy^9 - 12\,{v_1}^2v_3xy^9 - 66\,{v_1}^6v_2xy^9 - 58\,{v_1}^3{v_2}^2xy^9$$

$$+24\,{v_1}^3v_3x^{10}y + 128\,{v_1}^4{v_2}^2x^{10}y + 40\,v_1{v_2}^3x^{10}y + 16\,v_2v_3x^{10}y + 34\,{v_1}^{10}x^{10}y + 116\,{v_1}^7v_2x^{10}y + 456\,v_1{v_2}^3x^9y^2 + 574\,{v_1}^{10}x^9y^2 + 1837\,{v_1}^7v_2x^9y^2 + 254\,{v_1}^3v_3x^9y^2 + 1811\,{v_1}^4{v_2}^2x^9y^2 + 120\,v_2v_3x^9y^2 + 424\,v_2v_3x^8y^3 + 9596\,{v_1}^4{v_2}^2x^8y^3 + 10612\,{v_1}^7v_2x^8y^3 + 3506\,{v_1}^{10}x^8y^3 + 1144\,{v_1}^3v_3x^8y^3 + 2060\,v_1{v_2}^3x^8y^3 + 26363\,{v_1}^4{v_2}^2x^7y^4 + 918\,v_2v_3x^7y^4 + 5103\,v_1{v_2}^3x^7y^4 + 10643\,{v_1}^{10}x^7y^4 + 2906\,{v_1}^3v_3x^7y^4 + 30921\,{v_1}^7v_2x^7y^4 + 4557\,{v_1}^3v_3x^6y^5 + 42619\,{v_1}^4{v_2}^2x^6y^5 + 1330\,v_2v_3x^6y^5 + 18115\,{v_1}^{10}x^6y^5 + 7847\,v_1{v_2}^3x^6y^5 + 51502\,{v_1}^7v_2x^6y^5 + 42619\,{v_1}^4{v_2}^2x^5y^6 + 18115\,{v_1}^{10}x^5y^6 + 51502\,{v_1}^7v_2x^5y^6 + 7847\,v_1{v_2}^3x^5y^6 + 1330\,v_2v_3x^5y^6 + 4557\,{v_1}^3v_3x^5y^6 + 26363\,{v_1}^4{v_2}^2x^4y^7 + 918\,v_2v_3x^4y^7 + 2906\,{v_1}^3v_3x^4y^7 + 5103\,v_1{v_2}^3x^4y^7 + 10643\,{v_1}^{10}x^4y^7 + 30921\,{v_1}^7v_2x^4y^7 + 3506\,{v_1}^{10}x^3y^8 + 2060\,v_1{v_2}^3x^3y^8 + 9596\,{v_1}^4{v_2}^2x^3y^8 + 1144\,{v_1}^3v_3x^3y^8 + 424\,v_2v_3x^3y^8 + 10612\,{v_1}^7v_2x^3y^8 + 1811\,{v_1}^4{v_2}^2x^2y^9 + 574\,{v_1}^{10}x^2y^9 + 456\,v_1{v_2}^3x^2y^9 + 120\,v_2v_3x^2y^9 + 1837\,{v_1}^7v_2x^2y^9 + 254\,{v_1}^3v_3x^2y^9 + 34\,{v_1}^{10}xy^{10} + 128\,{v_1}^4{v_2}^2xy^{10} + 40\,v_1{v_2}^3xy^{10} + 24\,{v_1}^3v_3xy^{10} + 16\,v_2v_3xy^{10} + 116\,{v_1}^7v_2xy^{10}$$

$$-196\,{v_1}^8v_2x^{11}y - 250\,{v_1}^5{v_2}^2x^{11}y - 104\,{v_1}^2{v_2}^3x^{11}y - 44\,{v_1}^4v_3x^{11}y - 48\,v_1v_2v_3x^{11}y - 52\,{v_1}^{11}x^{11}y - 520\,v_1v_2v_3x^{10}y^2 - 4325\,{v_1}^5{v_2}^2x^{10}y^2 - 582\,{v_1}^4v_3x^{10}y^2 - 1564\,{v_1}^2{v_2}^3x^{10}y^2 - 3704\,{v_1}^8v_2x^{10}y^2 - 1039\,{v_1}^{11}x^{10}y^2 - 8920\,{v_1}^2{v_2}^3x^9y^3 - 7546\,{v_1}^{11}x^9y^3 - 25549\,{v_1}^8v_2x^9y^3 - 27679\,{v_1}^5{v_2}^2x^9y^3 - 2400\,v_1v_2v_3x^9y^3 - 3170\,{v_1}^4v_3x^9y^3 - 27636\,{v_1}^{11}x^8y^4 - 27241\,{v_1}^2{v_2}^3x^8y^4 - 91989\,{v_1}^5{v_2}^2x^8y^4 - 6470\,v_1v_2v_3x^8y^4 - 89822\,{v_1}^8v_2x^8y^4 - 9682\,{v_1}^4v_3x^8y^4 - 58002\,{v_1}^{11}x^7y^5 - 181684\,{v_1}^5{v_2}^2x^7y^5 - 11384\,v_1v_2v_3x^7y^5 - 18408\,{v_1}^4v_3x^7y^5 - 183665\,{v_1}^8v_2x^7y^5 - 51133\,{v_1}^2{v_2}^3x^7y^5 - 13685\,v_1v_2v_3x^6y^6 - 73850\,{v_1}^{11}x^6y^6 - 226598\,{v_1}^5{v_2}^2x^6y^6 - 231765\,{v_1}^8v_2x^6y^6 - 62707\,{v_1}^2{v_2}^3x^6y^6 - 22715\,{v_1}^4v_3x^6y^6 - 181684\,{v_1}^5{v_2}^2x^5y^7 - 11384\,v_1v_2v_3x^5y^7 - 51133\,{v_1}^2{v_2}^3x^5y^7 - 18408\,{v_1}^4v_3x^5y^7 - 183665\,{v_1}^8v_2x^5y^7 - 58002\,{v_1}^{11}x^5y^7 - 9682\,{v_1}^4v_3x^4y^8 - 91989\,{v_1}^5{v_2}^2x^4y^8 - 6470\,v_1v_2v_3x^4y^8 - 27636\,{v_1}^{11}x^4y^8 -$$

$$89822\,v_1{}^8v_2x^4y^8 - 27241\,v_1{}^2v_2{}^3x^4y^8 - 2400\,v_1v_2v_3x^3y^9 - 7546\,v_1{}^{11}x^3y^9 - 27679\,v_1{}^5v_2{}^2x^3y^9 - 25549\,v_1{}^8v_2x^3y^9 - 8920\,v_1{}^2v_2{}^3x^3y^9 - 3170\,v_1{}^4v_3x^3y^9 - 582\,v_1{}^4v_3x^2y^{10} - 3704\,v_1{}^8v_2x^2y^{10} - 520\,v_1v_2v_3x^2y^{10} - 1039\,v_1{}^{11}x^2y^{10} - 1564\,v_1{}^2v_2{}^3x^2y^{10} - 4325\,v_1{}^5v_2{}^2x^2y^{10} - 44\,v_1{}^4v_3xy^{11} - 104\,v_1{}^2v_2{}^3xy^{11} - 48\,v_1v_2v_3xy^{11} - 250\,v_1{}^5v_2{}^2xy^{11} - 52\,v_1{}^{11}xy^{11} - 196\,v_1{}^8v_2xy^{11}$$

$$+240\,v_1{}^3v_2{}^3x^{12}y + 78\,v_1{}^{12}x^{12}y + 460\,v_1{}^6v_2{}^2x^{12}y + 72\,v_1{}^5v_3x^{12}y + 16\,v_2{}^4x^{12}y + 320\,v_1{}^9v_2x^{12}y + 96\,v_1{}^2v_2v_3x^{12}y + 9631\,v_1{}^6v_2{}^2x^{11}y^2 + 1416\,v_1{}^2v_2v_3x^{11}y^2 + 240\,v_2{}^4x^{11}y^2 + 1202\,v_1{}^5v_3x^{11}y^2 + 4508\,v_1{}^3v_2{}^3x^{11}y^2 + 1840\,v_1{}^{12}x^{11}y^2 + 7198\,v_1{}^9v_2x^{11}y^2 + 15709\,v_1{}^{12}x^{10}y^3 + 31416\,v_1{}^3v_2{}^3x^{10}y^3 + 8352\,v_1{}^2v_2v_3x^{10}y^3 + 7934\,v_1{}^5v_3x^{10}y^3 + 58672\,v_1{}^9v_2x^{10}y^3 + 1400\,v_2{}^4x^{10}y^3 + 73615\,v_1{}^6v_2{}^2x^{10}y^3 + 4546\,v_2{}^4x^9y^4 + 28937\,v_1{}^5v_3x^9y^4 + 115864\,v_1{}^3v_2{}^3x^9y^4 + 244934\,v_1{}^9v_2x^9y^4 + 27744\,v_1{}^2v_2v_3x^9y^4 + 68193\,v_1{}^{12}x^9y^4 + 291819\,v_1{}^6v_2{}^2x^9y^4 + 261417\,v_1{}^3v_2{}^3x^8y^5 + 691569\,v_1{}^6v_2{}^2x^8y^5 + 58986\,v_1{}^2v_2v_3x^8y^5 + 601728\,v_1{}^9v_2x^8y^5 + 65784\,v_1{}^5v_3x^8y^5 + 9462\,v_2{}^4x^8y^5 + 172287\,v_1{}^{12}x^8y^5 + 13470\,v_2{}^4x^7y^6 + 85011\,v_1{}^2v_2v_3x^7y^6 + 386948\,v_1{}^3v_2{}^3x^7y^6 + 270163\,v_1{}^{12}x^7y^6 + 929923\,v_1{}^9v_2x^7y^6 + 1049281\,v_1{}^6v_2{}^2x^7y^6 + 98170\,v_1{}^5v_3x^7y^6 + 929923\,v_1{}^9v_2x^6y^7 + 98170\,v_1{}^5v_3x^6y^7 + 386948\,v_1{}^3v_2{}^3x^6y^7 + 1049281\,v_1{}^6v_2{}^2x^6y^7 + 85011\,v_1{}^2v_2v_3x^6y^7 + 13470\,v_2{}^4x^6y^7 + 270163\,v_1{}^{12}x^6y^7 + 65784\,v_1{}^5v_3x^5y^8 + 58986\,v_1{}^2v_2v_3x^5y^8 + 9462\,v_2{}^4x^5y^8 + 261417\,v_1{}^3v_2{}^3x^5y^8 + 601728\,v_1{}^9v_2x^5y^8 + 691569\,v_1{}^6v_2{}^2x^5y^8 + 172287\,v_1{}^{12}x^5y^8 + 4546\,v_2{}^4x^4y^9 + 27744\,v_1{}^2v_2v_3x^4y^9 + 291819\,v_1{}^6v_2{}^2x^4y^9 + 115864\,v_1{}^3v_2{}^3x^4y^9 + 28937\,v_1{}^5v_3x^4y^9 + 68193\,v_1{}^{12}x^4y^9 + 244934\,v_1{}^9v_2x^4y^9 + 73615\,v_1{}^6v_2{}^2x^3y^{10} + 31416\,v_1{}^3v_2{}^3x^3y^{10} + 8352\,v_1{}^2v_2v_3x^3y^{10} + 15709\,v_1{}^{12}x^3y^{10} + 7934\,v_1{}^5v_3x^3y^{10} + 58672\,v_1{}^9v_2x^3y^{10} + 1400\,v_2{}^4x^3y^{10} + 1202\,v_1{}^5v_3x^2y^{11} + 4508\,v_1{}^3v_2{}^3x^2y^{11} + 240\,v_2{}^4x^2y^{11} + 7198\,v_1{}^9v_2x^2y^{11} + 9631\,v_1{}^6v_2{}^2x^2y^{11} + 1840\,v_1{}^{12}x^2y^{11} + 1416\,v_1{}^2v_2v_3x^2y^{11} + 72\,v_1{}^5v_3xy^{12} + 460\,v_1{}^6v_2{}^2xy^{12} + 16\,v_2{}^4xy^{12} + 96\,v_1{}^2v_2v_3xy^{12} + 78\,v_1{}^{12}xy^{12} + 320\,v_1{}^9v_2xy^{12} + 240\,v_1{}^3v_2{}^3xy^{12}$$

$$-118\,v_1{}^{13}x^{13}y - 208\,v_1{}^3v_2v_3x^{13}y - 104\,v_1v_2{}^4x^{13}y - 48\,v_2{}^2v_3x^{13}y - 528\,v_1{}^{10}v_2x^{13}y - 120\,v_1{}^6v_3x^{13}y - 860\,v_1{}^7v_2{}^2x^{13}y - 568\,v_1{}^4v_2{}^3x^{13}y - 20960\,v_1{}^7v_2{}^2x^{12}y^2 - 12464\,v_1{}^4v_2{}^3x^{12}y^2 - 13776\,v_1{}^{10}v_2x^{12}y^2 - 2408\,v_1{}^6v_3x^{12}y^2 - 3696\,v_1{}^3v_2v_3x^{12}y^2 - 1864\,v_1v_2{}^4x^{12}y^2 - 3224\,v_1{}^{13}x^{12}y^2 - 624\,v_2{}^2v_3x^{12}y^2 - 31900\,v_1{}^{13}x^{11}y^3 - 186999\,v_1{}^7v_2{}^2x^{11}y^3 - 130486\,v_1{}^{10}v_2x^{11}y^3 - 18826\,v_1{}^6v_3x^{11}y^3 - 26120\,v_1{}^3v_2v_3x^{11}y^3 - 101960\,v_1{}^4v_2{}^3x^{11}y^3 - 3480\,v_2{}^2v_3x^{11}y^3 - 12980\,v_1v_2{}^4x^{11}y^3 - 161602\,v_1{}^{13}x^{10}y^4 - 80713\,v_1{}^6v_3x^{10}y^4 - 636549\,v_1{}^{10}v_2x^{10}y^4 - 103066\,v_1{}^3v_2v_3x^{10}y^4 - 442082\,v_1{}^4v_2{}^3x^{10}y^4 - 868350\,v_1{}^7v_2{}^2x^{10}y^4 - 11542\,v_2{}^2v_3x^{10}y^4 - 49855\,v_1v_2{}^4x^{10}y^4 - 482163\,v_1{}^{13}x^9y^5 - 2426196\,v_1{}^7v_2{}^2x^9y^5 - 1845007\,v_1{}^{10}v_2x^9y^5 - 121942\,v_1v_2{}^4x^9y^5 - 259030\,v_1{}^3v_2v_3x^9y^5 - 1175428\,v_1{}^4v_2{}^3x^9y^5 - 25752\,v_2{}^2v_3x^9y^5 - 216023\,v_1{}^6v_3x^9y^5 - 3413311\,v_1{}^{10}v_2x^8y^6 - 40944\,v_2{}^2v_3x^8y^6 - 2063294\,v_1{}^4v_2{}^3x^8y^6 - 441490\,v_1{}^3v_2v_3x^8y^6 - 203898\,v_1v_2{}^4x^8y^6 - 908378\,v_1{}^{13}x^8y^6 - 4388282\,v_1{}^7v_2{}^2x^8y^6 - 382999\,v_1{}^6v_3x^8y^6 - 4175226\,v_1{}^{10}v_2x^7y^7 - 241180\,v_1v_2{}^4x^7y^7 - 47660\,v_2{}^2v_3x^7y^7 - 525789\,v_1{}^3v_2v_3x^7y^7 - 462300\,v_1{}^6v_3x^7y^7 - 1118046\,v_1{}^{13}x^7y^7 - 2479777\,v_1{}^4v_2{}^3x^7y^7 - 5327078\,v_1{}^7v_2{}^2x^7y^7 - 441490\,v_1{}^3v_2v_3x^6y^8 - 3413311\,v_1{}^{10}v_2x^6y^8 - 203898\,v_1v_2{}^4x^6y^8 - 4388282\,v_1{}^7v_2{}^2x^6y^8 - 382999\,v_1{}^6v_3x^6y^8 - 908378\,v_1{}^{13}x^6y^8 - 40944\,v_2{}^2v_3x^6y^8 - 2063294\,v_1{}^4v_2{}^3x^6y^8 - 2426196\,v_1{}^7v_2{}^2x^5y^9 - 259030\,v_1{}^3v_2v_3x^5y^9 - 121942\,v_1v_2{}^4x^5y^9 - 25752\,v_2{}^2v_3x^5y^9 - 482163\,v_1{}^{13}x^5y^9 - 1845007\,v_1{}^{10}v_2x^5y^9 - 216023\,v_1{}^6v_3x^5y^9 - 1175428\,v_1{}^4v_2{}^3x^5y^9 - 103066\,v_1{}^3v_2v_3x^4y^{10} - 442082\,v_1{}^4v_2{}^3x^4y^{10} - 161602\,v_1{}^{13}x^4y^{10} - 868350\,v_1{}^7v_2{}^2x^4y^{10} - 636549\,v_1{}^{10}v_2x^4y^{10} - 11542\,v_2{}^2v_3x^4y^{10} - 49855\,v_1v_2{}^4x^4y^{10} - 80713\,v_1{}^6v_3x^4y^{10} - 12980\,v_1v_2{}^4x^3y^{11} - 18826\,v_1{}^6v_3x^3y^{11} - 130486\,v_1{}^{10}v_2x^3y^{11} - 26120\,v_1{}^3v_2v_3x^3y^{11} - 31900\,v_1{}^{13}x^3y^{11} - 186999\,v_1{}^7v_2{}^2x^3y^{11} - 101960\,v_1{}^4v_2{}^3x^3y^{11} - 3480\,v_2{}^2v_3x^3y^{11} - 1864\,v_1v_2{}^4x^2y^{12} - 624\,v_2{}^2v_3x^2y^{12} - 2408\,v_1{}^6v_3x^2y^{12} - 20960\,v_1{}^7v_2{}^2x^2y^{12} - 3696\,v_1{}^3v_2v_3x^2y^{12} - 3224\,v_1{}^{13}x^2y^{12} - 13776\,v_1{}^{10}v_2x^2y^{12} - 12464\,v_1{}^4v_2{}^3x^2y^{12} - 118\,v_1{}^{13}xy^{13} - 528\,v_1{}^{10}v_2xy^{13} - 208\,v_1{}^3v_2v_3xy^{13} - 120\,v_1{}^6v_3xy^{13} - 568\,v_1{}^4v_2{}^3xy^{13} - 860\,v_1{}^7v_2{}^2xy^{13} - 104\,v_1v_2{}^4xy^{13} - 48\,v_2{}^2v_3xy^{13}$$

$$+340\,v_1{}^2v_2{}^4x^{14}y + 16\,v_3{}^2x^{14}y + 208\,v_1v_2{}^2v_3x^{14}y + 1248\,v_1{}^5v_2{}^3x^{14}y + 208\,v_1{}^7v_3x^{14}y + 1584\,v_1{}^8v_2{}^2x^{14}y + 872\,v_1{}^{11}v_2x^{14}y + 180\,v_1{}^{14}x^{14}y + 448\,v_1{}^4v_2v_3x^{14}y + 4812\,v_1{}^7v_3x^{13}y^2 + 168\,v_3{}^2x^{13}y^2 + 9304\,v_1{}^4v_2v_3x^{13}y^2 + 44426\,v_1{}^8v_2{}^2x^{13}y^2 + 26028\,v_1{}^{11}v_2x^{13}y^2 + 7550\,v_1{}^2v_2{}^4x^{13}y^2 + 31972\,v_1{}^5v_2{}^3x^{13}y^2 + 3504\,v_1v_2{}^2v_3x^{13}y^2 + 5611\,v_1{}^{14}x^{13}y^2 + 840\,v_3{}^2x^{12}y^3 + 63524\,v_1{}^{14}x^{12}y^3 + 303876\,v_1{}^5v_2{}^3x^{12}y^3 + 24216\,v_1v_2{}^2v_3x^{12}y^3 + 63538\,v_1{}^2v_2{}^4x^{12}y^3 + 76536\,v_1{}^4v_2v_3x^{12}y^3 + 456440\,v_1{}^8v_2{}^2x^{12}y^3 + 43456\,v_1{}^7v_3x^{12}y^3 + 282728\,v_1{}^{11}v_2x^{12}y^3 + 1529679\,v_1{}^5v_2{}^3x^{11}y^4 + 2660\,v_3{}^2x^{11}y^4 + 96536\,v_1v_2{}^2v_3x^{11}y^4 + 350566\,v_1{}^4v_2v_3x^{11}y^4 + 2449051\,v_1{}^8v_2{}^2x^{11}y^4 + 1590056\,v_1{}^{11}v_2x^{11}y^4 + 370532\,v_1{}^{14}x^{11}y^4 + 215150\,v_1{}^7v_3x^{11}y^4 + 289963\,v_1{}^2v_2{}^4x^{11}y^4 + 5964\,v_3{}^2x^{10}y^5 + 253992\,v_1v_2{}^2v_3x^{10}y^5 + 7952190\,v_1{}^8v_2{}^2x^{10}y^5 + 4731136\,v_1{}^5v_2{}^3x^{10}y^5 + 5356171\,v_1{}^{11}v_2x^{10}y^5 + 1022972\,v_1{}^4v_2v_3x^{10}y^5 + 833565\,v_1{}^2v_2{}^4x^{10}y^5 + 1285316\,v_1{}^{14}x^{10}y^5 + 667375\,v_1{}^7v_3x^{10}y^5 + 1382880\,v_1{}^7v_3x^9y^6 + 2031763\,v_1{}^4v_2v_3x^9y^6 + 9711155\,v_1{}^5v_2{}^3x^9y^6 + 11649542\,v_1{}^{11}v_2x^9y^6 + 1630460\,v_1{}^2v_2{}^4x^9y^6 + 471048\,v_1v_2{}^2v_3x^9y^6 + 2853441\,v_1{}^{14}x^9y^6 + 16865900\,v_1{}^8v_2{}^2x^9y^6 + 9996\,v_3{}^2x^9y^6 + 2260060\,v_1{}^2v_2{}^4x^8y^7 + 24340223\,v_1{}^8v_2{}^2x^8y^7 + 12868\,v_3{}^2x^8y^7 + 1976921\,v_1{}^7v_3x^8y^7 + 4215142\,v_1{}^{14}x^8y^7 + 13786217\,v_1{}^5v_2{}^3x^8y^7 + 17028517\,v_1{}^{11}v_2x^8y^7 + 2842084\,v_1{}^4v_2v_3x^8y^7 + 636844\,v_1v_2{}^2v_3x^8y^7 + 17028517\,v_1{}^{11}v_2x^7y^8 + 12868\,v_3{}^2x^7y^8 + 2842084\,v_1{}^4v_2v_3x^7y^8 + 1976921\,v_1{}^7v_3x^7y^8 + 4215142\,v_1{}^{14}x^7y^8 + 24340223\,v_1{}^8v_2{}^2x^7y^8 + 13786217\,v_1{}^5v_2{}^3x^7y^8 + 636844\,v_1v_2{}^2v_3x^7y^8 + 2260060\,v_1{}^2v_2{}^4x^7y^8 + 2853441\,v_1{}^{14}x^6y^9 + 16865900\,v_1{}^8v_2{}^2x^6y^9 + 2031763\,v_1{}^4v_2v_3x^6y^9 + 471048\,v_1v_2{}^2v_3x^6y^9 + 1382880\,v_1{}^7v_3x^6y^9 + 1630460\,v_1{}^2v_2{}^4x^6y^9 + 9996\,v_3{}^2x^6y^9 + 11649542\,v_1{}^{11}v_2x^6y^9 + 9711155\,v_1{}^5v_2{}^3x^6y^9 + 1022972\,v_1{}^4v_2v_3x^5y^{10} + 4731136\,v_1{}^5v_2{}^3x^5y^{10} + 253992\,v_1v_2{}^2v_3x^5y^{10} + 667375\,v_1{}^7v_3x^5y^{10} + 5356171\,v_1{}^{11}v_2x^5y^{10} + 833565\,v_1{}^2v_2{}^4x^5y^{10} + 7952190\,v_1{}^8v_2{}^2x^5y^{10} + 5964\,v_3{}^2x^5y^{10} + 1285316\,v_1{}^{14}x^5y^{10} + 2449051\,v_1{}^8v_2{}^2x^4y^{11} + 1590056\,v_1{}^{11}v_2x^4y^{11} + 2660\,v_3{}^2x^4y^{11} + 215150\,v_1{}^7v_3x^4y^{11} + 1529679\,v_1{}^5v_2{}^3x^4y^{11} + 96536\,v_1v_2{}^2v_3x^4y^{11} + 350566\,v_1{}^4v_2v_3x^4y^{11} + 370532\,v_1{}^{14}x^4y^{11} + 289963\,v_1{}^2v_2{}^4x^4y^{11} + 282728\,v_1{}^{11}v_2x^3y^{12} + 43456\,v_1{}^7v_3x^3y^{12} + 63538\,v_1{}^2v_2{}^4x^3y^{12} + 840\,v_3{}^2x^3y^{12} + 303876\,v_1{}^5v_2{}^3x^3y^{12} + 76536\,v_1{}^4v_2v_3x^3y^{12} + 24216\,v_1v_2{}^2v_3x^3y^{12} + 456440\,v_1{}^8v_2{}^2x^3y^{12} + 63524\,v_1{}^{14}x^3y^{12} + 31972\,v_1{}^5v_2{}^3x^2y^{13} + 168\,v_3{}^2x^2y^{13} + 4812\,v_1{}^7v_3x^2y^{13} + 7550\,v_1{}^2v_2{}^4x^2y^{13} + 5611\,v_1{}^{14}x^2y^{13} + 26028\,v_1{}^{11}v_2x^2y^{13} + 9304\,v_1{}^4v_2v_3x^2y^{13} + 44426\,v_1{}^8v_2{}^2x^2y^{13} + 3504\,v_1v_2{}^2v_3x^2y^{13} + 872\,v_1{}^{11}v_2xy^{14} + 1248\,v_1{}^5v_2{}^3xy^{14} + 208\,v_1{}^7v_3xy^{14} + 208\,v_1v_2{}^2v_3xy^{14} + 340\,v_1{}^2v_2{}^4xy^{14} + 16\,v_3{}^2xy^{14} + 1584\,v_1{}^8v_2{}^2xy^{14} + 448\,v_1{}^4v_2v_3xy^{14} + 180\,v_1{}^{14}xy^{14}$$

$$-894\,v_2{}^4v_1{}^3x^{15}y - 274\,v_1{}^{15}x^{15}y - 36\,v_2{}^5x^{15}y - 2824\,v_1{}^9v_2{}^2x^{15}y - 2544\,v_1{}^6v_2{}^3x^{15}y - 352\,v_1{}^8v_3x^{15}y - 864\,v_1{}^5v_2v_3x^{15}y - 52\,v_1v_3{}^2x^{15}y - 8\,v_4x^{15}y - 1420\,v_1{}^{12}v_2x^{15}y - 528\,v_1{}^2v_2{}^2v_3x^{15}y - 9675\,v_1{}^{15}x^{14}y^2 - 60\,v_4x^{14}y^2 - 76176\,v_1{}^6v_2{}^3x^{14}y^2 - 9376\,v_1{}^8v_3x^{14}y^2 - 24025\,v_2{}^4v_1{}^3x^{14}y^2 - 91068\,v_1{}^9v_2{}^2x^{14}y^2 - 48314\,v_1{}^{12}v_2x^{14}y^2 - 750\,v_2{}^5x^{14}y^2 - 21376\,v_1{}^5v_2v_3x^{14}y^2 - 11416\,v_1{}^2v_2{}^2v_3x^{14}y^2 - 742\,v_1v_3{}^2x^{14}y^2 - 837116\,v_1{}^6v_2{}^3x^{13}y^3 - 280\,v_4x^{13}y^3 - 240058\,v_2{}^4v_1{}^3x^{13}y^3 - 97020\,v_1{}^8v_3x^{13}y^3 - 205016\,v_1{}^5v_2v_3x^{13}y^3 - 96992\,v_1{}^2v_2{}^2v_3x^{13}y^3 - 6300\,v_2{}^5x^{13}y^3 - 1070402\,v_1{}^9v_2{}^2x^{13}y^3 - 124223\,v_1{}^{15}x^{13}y^3 - 4732\,v_1v_3{}^2x^{13}y^3 - 597160\,v_1{}^{12}v_2x^{13}y^3 - 29567\,v_2{}^5x^{12}y^4 - 462438\,v_1{}^2v_2{}^2v_3x^{12}y^4 - 3833094\,v_1{}^{12}v_2x^{12}y^4 - 1284974\,v_2{}^4v_1{}^3x^{12}y^4 - 6575175\,v_1{}^9v_2{}^2x^{12}y^4 - 825517\,v_1{}^{15}x^{12}y^4 - 4854851\,v_1{}^6v_2{}^3x^{12}y^4 - 549178\,v_1{}^8v_3x^{12}y^4 - 18305\,v_1v_3{}^2x^{12}y^4 - 1084386\,v_1{}^5v_2v_3x^{12}y^4 - 910\,v_4x^{12}y^4 - 2184\,v_4x^{11}y^5 - 4299203\,v_2{}^4v_1{}^3x^{11}y^5 - 3643928\,v_1{}^5v_2v_3x^{11}y^5 - 89808\,v_2{}^5x^{11}y^5 - 1952134\,v_1{}^8v_3x^{11}y^5 - 48692\,v_1v_3{}^2x^{11}y^5 - 17304199\,v_1{}^6v_2{}^3x^{11}y^5 - 1429814\,v_1{}^2v_2{}^2v_3x^{11}y^5 - 14827748\,v_1{}^{12}v_2x^{11}y^5 - 24539554\,v_1{}^9v_2{}^2x^{11}y^5 - 3287502\,v_1{}^{15}x^{11}y^5 - 190708\,v_2{}^5x^{10}y^6 - 37371896\,v_1{}^{12}v_2x^{10}y^6 - 4004\,v_4x^{10}y^6 - 9752888\,v_2{}^4v_1{}^3x^{10}y^6 - 8468689\,v_1{}^{15}x^{10}y^6 - 60235644\,v_1{}^9v_2{}^2x^{10}y^6 - 41077970\,v_1{}^6v_2{}^3x^{10}y^6 - 8350537\,v_1{}^5v_2v_3x^{10}y^6 - 3083989\,v_1{}^2v_2{}^2v_3x^{10}y^6 - 94892\,v_1v_3{}^2x^{10}y^6 - 4666163\,v_1{}^8v_3x^{10}y^6 - 64107574\,v_1{}^{12}v_2x^9y^7 - 7777033\,v_1{}^8v_3x^9y^7 - 4826976\,v_1{}^2v_2{}^2v_3x^9y^7 - 140092\,v_1v_3{}^2x^9y^7 - 67941921\,v_1{}^6v_2{}^3x^9y^7 - 13558557\,v_1{}^5v_2v_3x^9y^7 - 295380\,v_2{}^5x^9y^7 - 5720\,v_4x^9y^7 -$$

$$101668635\,v_1{}^9v_2{}^2x^9y^7 - 15698070\,v_2{}^4v_1{}^3x^9y^7 - 14724994\,v_1{}^{15}x^9y^7 - 9203641\,v_1{}^8v_3x^8y^8 - 76561190\,v_1{}^{12}v_2x^8y^8 - 159258\,v_1v_3{}^2x^8y^8 - 6435\,v_4x^8y^8 - 17666224\,v_1{}^{15}x^8y^8 - 5592939\,v_1{}^2v_2{}^2v_3x^8y^8 - 80153580\,v_1{}^6v_2{}^3x^8y^8 - 18352665\,v_2{}^4v_1{}^3x^8y^8 - 120759065\,v_1{}^9v_2{}^2x^8y^8 - 15904137\,v_1{}^5v_2v_3x^8y^8 - 340998\,v_2{}^5x^8y^8 - 64107574\,v_1{}^{12}v_2x^7y^9 - 7777033\,v_1{}^8v_3x^7y^9 - 13558557\,v_1{}^5v_2v_3x^7y^9 - 4826976\,v_1{}^2v_2{}^2v_3x^7y^9 - 140092\,v_1v_3{}^2x^7y^9 - 15698070\,v_2{}^4v_1{}^3x^7y^9 - 101668635\,v_1{}^9v_2{}^2x^7y^9 - 14724994\,v_1{}^{15}x^7y^9 - 295380\,v_2{}^5x^7y^9 - 67941921\,v_1{}^6v_2{}^3x^7y^9 - 5720\,v_4x^7y^9 - 8350537\,v_1{}^5v_2v_3x^6y^{10} - 37371896\,v_1{}^{12}v_2x^6y^{10} - 4004\,v_4x^6y^{10} - 41077970\,v_1{}^6v_2{}^3x^6y^{10} - 8468689\,v_1{}^{15}x^6y^{10} - 4666163\,v_1{}^8v_3x^6y^{10} - 3083989\,v_1{}^2v_2{}^2v_3x^6y^{10} - 94892\,v_1v_3{}^2x^6y^{10} - 60235644\,v_1{}^9v_2{}^2x^6y^{10} - 9752888\,v_2{}^4v_1{}^3x^6y^{10} - 190708\,v_2{}^5x^6y^{10} - 89808\,v_2{}^5x^5y^{11} - 17304199\,v_1{}^6v_2{}^3x^5y^{11} - 3643928\,v_1{}^5v_2v_3x^5y^{11} - 3287502\,v_1{}^{15}x^5y^{11} - 1429814\,v_1{}^2v_2{}^2v_3x^5y^{11} - 48692\,v_1v_3{}^2x^5y^{11} - 2184\,v_4x^5y^{11} - 1952134\,v_1{}^8v_3x^5y^{11} - 4299203\,v_2{}^4v_1{}^3x^5y^{11} - 24539554\,v_1{}^9v_2{}^2x^5y^{11} - 14827748\,v_1{}^{12}v_2x^5y^{11} - 1084386\,v_1{}^5v_2v_3x^4y^{12} - 18305\,v_1v_3{}^2x^4y^{12} - 4854851\,v_1{}^6v_2{}^3x^4y^{12} - 910\,v_4x^4y^{12} - 825517\,v_1{}^{15}x^4y^{12} - 29567\,v_2{}^5x^4y^{12} - 6575175\,v_1{}^9v_2{}^2x^4y^{12} - 549178\,v_1{}^8v_3x^4y^{12} - 462438\,v_1{}^2v_2{}^2v_3x^4y^{12} - 3833094\,v_1{}^{12}v_2x^4y^{12} - 1284974\,v_2{}^4v_1{}^3x^4y^{12} - 240058\,v_2{}^4v_1{}^3x^3y^{13} - 4732\,v_1v_3{}^2x^3y^{13} - 124223\,v_1{}^{15}x^3y^{13} - 280\,v_4x^3y^{13} - 837116\,v_1{}^6v_2{}^3x^3y^{13} - 6300\,v_2{}^5x^3y^{13} - 96992\,v_1{}^2v_2{}^2v_3x^3y^{13} - 205016\,v_1{}^5v_2v_3x^3y^{13} - 597160\,v_1{}^{12}v_2x^3y^{13} - 1070402\,v_1{}^9v_2{}^2x^3y^{13} - 97020\,v_1{}^8v_3x^3y^{13} - 21376\,v_1{}^5v_2v_3x^2y^{14} - 91068\,v_1{}^9v_2{}^2x^2y^{14} - 48314\,v_1{}^{12}v_2x^2y^{14} - 9376\,v_1{}^8v_3x^2y^{14} - 750\,v_2{}^5x^2y^{14} - 76176\,v_1{}^6v_2{}^3x^2y^{14} - 9675\,v_1{}^{15}x^2y^{14} - 11416\,v_1{}^2v_2{}^2v_3x^2y^{14} - 24025\,v_2{}^4v_1{}^3x^2y^{14} - 742\,v_1v_3{}^2x^2y^{14} - 60\,v_4x^2y^{14} - 36\,v_2{}^5xy^{15} - 8\,v_4xy^{15} - 274\,v_1{}^{15}xy^{15} - 352\,v_1{}^8v_3xy^{15} - 52\,v_1v_3{}^2xy^{15} - 2824\,v_1{}^9v_2{}^2xy^{15} - 2544\,v_1{}^6v_2{}^3xy^{15} - 1420\,v_1{}^{12}v_2xy^{15} - 528\,v_1{}^2v_2{}^2v_3xy^{15} - 894\,v_2{}^4v_1{}^3xy^{15} - 864\,v_1{}^5v_2v_3xy^{15}$$

$$2296\,v_1{}^{13}v_2x^{16}y + 264\,v_1v_2{}^5x^{16}y + 16\,v_1v_4x^{16}y + 5088\,v_1{}^7v_2{}^3x^{16}y + 104\,v_1{}^2v_3{}^2x^{16}y + 2268\,v_2{}^4v_1{}^4x^{16}y + 415\,v_1{}^{16}x^{16}y + 1600\,v_1{}^6v_2v_3x^{16}y + 128\,v_2{}^3v_3x^{16}y + 1248\,v_1{}^3v_2{}^2v_3x^{16}y + 576\,v_1{}^9v_3x^{16}y + 4976\,v_1{}^{10}v_2{}^2x^{16}y + 174472\,v_1{}^7v_2{}^3x^{15}y^2 + 6734\,v_1v_2{}^5x^{15}y^2 + 188\,v_1v_4x^{15}y^2 + 1990\,v_1{}^2v_3{}^2x^{15}y^2 + 46416\,v_1{}^6v_2v_3x^{15}y^2 + 16531\,v_1{}^{16}x^{15}y^2 + 17744\,v_1{}^9v_3x^{15}y^2 + 32376\,v_1{}^3v_2{}^2v_3x^{15}y^2 + 88410\,v_1{}^{13}v_2x^{15}y^2 + 2560\,v_2{}^3v_3x^{15}y^2 + 70481\,v_2{}^4v_1{}^4x^{15}y^2 + 182460\,v_1{}^{10}v_2{}^2x^{15}y^2 + 66270\,v_1v_2{}^5x^{14}y^3 + 20800\,v_2{}^3v_3x^{14}y^3 + 15950\,v_1{}^2v_3{}^2x^{14}y^3 + 2431084\,v_1{}^{10}v_2{}^2x^{14}y^3 + 1180\,v_1v_4x^{14}y^3 + 1233734\,v_1{}^{13}v_2x^{14}y^3 + 324720\,v_1{}^3v_2{}^2v_3x^{14}y^3 + 811415\,v_2{}^4v_1{}^4x^{14}y^3 + 209480\,v_1{}^9v_3x^{14}y^3 + 2187360\,v_1{}^7v_2{}^3x^{14}y^3 + 514080\,v_1{}^6v_2v_3x^{14}y^3 + 238981\,v_1{}^{16}x^{14}y^3 + 1346490\,v_1{}^9v_3x^{13}y^4 + 4830\,v_1v_4x^{13}y^4 + 4989318\,v_2{}^4v_1{}^4x^{13}y^4 + 8959439\,v_1{}^{13}v_2x^{13}y^4 + 14456514\,v_1{}^7v_2{}^3x^{13}y^4 + 74697\,v_1{}^2v_3{}^2x^{13}y^4 + 97976\,v_2{}^3v_3x^{13}y^4 + 3114524\,v_1{}^6v_2v_3x^{13}y^4 + 359643\,v_1v_2{}^5x^{13}y^4 + 16940908\,v_1{}^{10}v_2{}^2x^{13}y^4 + 1805086\,v_1{}^3v_2{}^2v_3x^{13}y^4 + 1793551\,v_1{}^{16}x^{13}y^4 + 71959165\,v_1{}^{10}v_2{}^2x^{12}y^5 + 14014\,v_1v_4x^{12}y^5 + 5438092\,v_1{}^9v_3x^{12}y^5 + 19135503\,v_2{}^4v_1{}^4x^{12}y^5 + 234605\,v_1{}^2v_3{}^2x^{12}y^5 + 308608\,v_2{}^3v_3x^{12}y^5 + 8114767\,v_1{}^{16}x^{12}y^5 + 1253151\,v_1v_2{}^5x^{12}y^5 + 11952730\,v_1{}^6v_2v_3x^{12}y^5 + 39400374\,v_1{}^{13}v_2x^{12}y^5 + 6450150\,v_1{}^3v_2{}^2v_3x^{12}y^5 + 58780585\,v_1{}^7v_2{}^3x^{12}y^5 + 31318871\,v_1{}^6v_2v_3x^{11}y^6 + 14838409\,v_1{}^9v_3x^{11}y^6 + 23952980\,v_1{}^{16}x^{11}y^6 + 530656\,v_1{}^2v_3{}^2x^{11}y^6 + 49745308\,v_2{}^4v_1{}^4x^{11}y^6 + 3039262\,v_1v_2{}^5x^{11}y^6 + 30212\,v_1v_4x^{11}y^6 + 113713697\,v_1{}^{13}v_2x^{11}y^6 + 698700\,v_2{}^3v_3x^{11}y^6 + 159694265\,v_1{}^7v_2{}^3x^{11}y^6 + 15995715\,v_1{}^3v_2{}^2v_3x^{11}y^6 + 202155733\,v_1{}^{10}v_2{}^2x^{11}y^6 + 48268807\,v_1{}^{16}x^{10}y^7 + 28740695\,v_1{}^3v_2{}^2v_3x^{10}y^7 + 393767880\,v_1{}^{10}v_2{}^2x^{10}y^7 + 898992\,v_1{}^2v_3{}^2x^{10}y^7 + 28466284\,v_1{}^9v_3x^{10}y^7 + 5372322\,v_1v_2{}^5x^{10}y^7 + 225613129\,v_1{}^{13}v_2x^{10}y^7 + 1183380\,v_2{}^3v_3x^{10}y^7 + 304098384\,v_1{}^7v_2{}^3x^{10}y^7 + 58415461\,v_1{}^6v_2v_3x^{10}y^7 + 49764\,v_1v_4x^{10}y^7 + 91979791\,v_2{}^4v_1{}^4x^{10}y^7 + 1164799\,v_1{}^2v_3{}^2x^9y^8 + 546215526\,v_1{}^{10}v_2{}^2x^9y^8 + 68123059\,v_1{}^{16}x^9y^8 + 7101318\,v_1v_2{}^5x^9y^8 + 39237252\,v_1{}^9v_3x^9y^8 + 124300776\,v_2{}^4v_1{}^4x^9y^8 + 315894611\,v_1{}^{13}v_2x^9y^8 + 63635\,v_1v_4x^9y^8 + 38318613\,v_1{}^3v_2{}^2v_3x^9y^8 + 1532546\,v_2{}^3v_3x^9y^8 + 417048686\,v_1{}^7v_2{}^3x^9y^8 + 79365893\,v_1{}^6v_2v_3x^9y^8 + 63635\,v_1v_4x^8y^9 + 417048686\,v_1{}^7v_2{}^3x^8y^9 + 68123059\,v_1{}^{16}x^8y^9 + 79365893\,v_1{}^6v_2v_3x^8y^9 + 1532546\,v_2{}^3v_3x^8y^9 + 38318613\,v_1{}^3v_2{}^2v_3x^8y^9 +$$

$$39237252\,v_1{}^9v_3x^8y^9 + 1164799\,v_1{}^2v_3{}^2x^8y^9 + 124300776\,v_2{}^4v_1{}^4x^8y^9 + 7101318\,v_1v_2{}^5x^8y^9 + 546215526\,v_1{}^{10}v_2{}^2x^8y^9 + 315894611\,v_1{}^{13}v_2x^8y^9 + 28466284\,v_1{}^9v_3x^7y^{10} + 58415461\,v_1{}^6v_2v_3x^7y^{10} + 393767880\,v_1{}^{10}v_2{}^2x^7y^{10} + 5372322\,v_1v_2{}^5x^7y^{10} + 48268807\,v_1{}^{16}x^7y^{10} + 49764\,v_1v_4x^7y^{10} + 898992\,v_1{}^2v_3{}^2x^7y^{10} + 225613129\,v_1{}^{13}v_2x^7y^{10} + 28740695\,v_1{}^3v_2{}^2v_3x^7y^{10} + 91979791\,v_2{}^4v_1{}^4x^7y^{10} + 304098384\,v_1{}^7v_2{}^3x^7y^{10} + 1183380\,v_2{}^3v_3x^7y^{10} + 14838409\,v_1{}^9v_3x^6y^{11} + 23952980\,v_1{}^{16}x^6y^{11} + 31318871\,v_1{}^6v_2v_3x^6y^{11} + 49745308\,v_2{}^4v_1{}^4x^6y^{11} + 3039262\,v_1v_2{}^5x^6y^{11} + 202155733\,v_1{}^{10}v_2{}^2x^6y^{11} + 530656\,v_1{}^2v_3{}^2x^6y^{11} + 698700\,v_2{}^3v_3x^6y^{11} + 30212\,v_1v_4x^6y^{11} + 113713697\,v_1{}^{13}v_2x^6y^{11} + 15995715\,v_1{}^3v_2{}^2v_3x^6y^{11} + 159694265\,v_1{}^7v_2{}^3x^6y^{11} + 6450150\,v_1{}^3v_2{}^2v_3x^5y^{12} + 71959165\,v_1{}^{10}v_2{}^2x^5y^{12} + 8114767\,v_1{}^{16}x^5y^{12} + 11952730\,v_1{}^6v_2v_3x^5y^{12} + 19135503\,v_2{}^4v_1{}^4x^5y^{12} + 1253151\,v_1v_2{}^5x^5y^{12} + 5438092\,v_1{}^9v_3x^5y^{12} + 234605\,v_1{}^2v_3{}^2x^5y^{12} + 308608\,v_2{}^3v_3x^5y^{12} + 58780585\,v_1{}^7v_2{}^3x^5y^{12} + 14014\,v_1v_4x^5y^{12} + 39400374\,v_1{}^{13}v_2x^5y^{12} + 8959439\,v_1{}^{13}v_2x^4y^{13} + 1805086\,v_1{}^3v_2{}^2v_3x^4y^{13} + 359643\,v_1v_2{}^5x^4y^{13} + 97976\,v_2{}^3v_3x^4y^{13} + 1793551\,v_1{}^{16}x^4y^{13} + 3114524\,v_1{}^6v_2v_3x^4y^{13} + 1346490\,v_1{}^9v_3x^4y^{13} + 16940908\,v_1{}^{10}v_2{}^2x^4y^{13} + 4989318\,v_2{}^4v_1{}^4x^4y^{13} + 4830\,v_1v_4x^4y^{13} + 14456514\,v_1{}^7v_2{}^3x^4y^{13} + 74697\,v_1{}^2v_3{}^2x^4y^{13} + 1180\,v_1v_4x^3y^{14} + 514080\,v_1{}^6v_2v_3x^3y^{14} + 2187360\,v_1{}^7v_2{}^3x^3y^{14} + 2431084\,v_1{}^{10}v_2{}^2x^3y^{14} + 1233734\,v_1{}^{13}v_2x^3y^{14} + 209480\,v_1{}^9v_3x^3y^{14} + 238981\,v_1{}^{16}x^3y^{14} + 66270\,v_1v_2{}^5x^3y^{14} + 20800\,v_2{}^3v_3x^3y^{14} + 811415\,v_2{}^4v_1{}^4x^3y^{14} + 15950\,v_1{}^2v_3{}^2x^3y^{14} + 324720\,v_1{}^3v_2{}^2v_3x^3y^{14} + 17744\,v_1{}^9v_3x^2y^{15} + 6734\,v_1v_2{}^5x^2y^{15} + 16531\,v_1{}^{16}x^2y^{15} + 70481\,v_2{}^4v_1{}^4x^2y^{15} + 182460\,v_1{}^{10}v_2{}^2x^2y^{15} + 46416\,v_1{}^6v_2v_3x^2y^{15} + 32376\,v_1{}^3v_2{}^2v_3x^2y^{15} + 188\,v_1v_4x^2y^{15} + 88410\,v_1{}^{13}v_2x^2y^{15} + 2560\,v_2{}^3v_3x^2y^{15} + 1990\,v_1{}^2v_3{}^2x^2y^{15} + 174472\,v_1{}^7v_2{}^3x^2y^{15} + 1600\,v_1{}^6v_2v_3xy^{16} + 264\,v_1v_2{}^5xy^{16} + 1248\,v_1{}^3v_2{}^2v_3xy^{16} + 4976\,v_1{}^{10}v_2{}^2xy^{16} + 104\,v_1{}^2v_3{}^2xy^{16} + 2296\,v_1{}^{13}v_2xy^{16} + 415\,v_1{}^{16}xy^{16} + 576\,v_1{}^9v_3xy^{16} + 128\,v_2{}^3v_3xy^{16} + 5088\,v_1{}^7v_2{}^3xy^{16} + 16\,v_1v_4xy^{16} + 2268\,v_2{}^4v_1{}^4xy^{16}$$

Some values of the n-series for $F_V(x,y)$ at $p = 2$ are:

$$[2]_V(x) = (2\,x - v_1x^2 + 2\,v_1{}^2x^3 + (-8\,v_1{}^3 - 7\,v_2)x^4 + (30\,v_1v_2 + 26\,v_1{}^4)x^5 + (-84\,v_1{}^5 - 111\,v_1{}^2v_2)x^6 + (300\,v_1{}^6 + 502\,v_1{}^3v_2 + 112\,v_2{}^2)x^7 + (-2299\,v_1{}^4v_2 - 1140\,v_1{}^7 - 960\,v_1v_2{}^2 - 127\,v_3)x^8 + O(x^9))$$

$$[3]_V(x) = (3\,x - 3\,v_1x^2 + 9\,v_1{}^2x^3 + (-51\,v_1{}^3 - 39\,v_2)x^4 + (261\,v_1{}^4 + 279\,v_1v_2)x^5 + (-1341\,v_1{}^5 - 1683\,v_1{}^2v_2)x^6 + (7452\,v_1{}^6 + 11664\,v_1{}^3v_2 + 2106\,v_2{}^2)x^7 + (-43869\,v_1{}^7 - 3279\,v_3 - 30102\,v_1v_2{}^2 - 82914\,v_1{}^4v_2)x^8 + O(x^9))$$

$$[4]_V(x) = (4\,x - 6\,v_1x^2 + 24\,v_1{}^2x^3 + (-177\,v_1{}^3 - 126\,v_2)x^4 + (1272\,v_1v_2 + 1236\,v_1{}^4)x^5 + (-8694\,v_1{}^5 - 10644\,v_1{}^2v_2)x^6 + (99504\,v_1{}^3v_2 + 65544\,v_1{}^6 + 16128\,v_2{}^2)x^7 + (-522456\,v_1{}^7 - 32766\,v_3 - 324225\,v_1v_2{}^2 - 957981\,v_1{}^4v_2)x^8 + O(x^9))$$

$$[5]_V(x) = (5\,x - 10\,v_1x^2 + 50\,v_1{}^2x^3 + (-455\,v_1{}^3 - 310\,v_2)x^4 + (4050\,v_1v_2 + 4025\,v_1{}^4)x^5 + (-35925\,v_1{}^5 - 43350\,v_1{}^2v_2)x^6 + (510250\,v_1{}^3v_2 + 342000\,v_1{}^6 + 77500\,v_2{}^2)x^7 + (-3438465\,v_1{}^7 - 195310\,v_3 - 2010705\,v_1v_2{}^2 - 6195955\,v_1{}^4v_2)x^8 + O(x^9))$$

$$[6]_V(x) = (6\,x - 15\,v_1x^2 + 90\,v_1{}^2x^3 + (-975\,v_1{}^3 - 645\,v_2)x^4 + (10350\,v_1v_2 + 10440\,v_1{}^4)x^5 + (-112905\,v_1{}^5 - 134955\,v_1{}^2v_2)x^6 + (1915650\,v_1{}^3v_2 + 1298430\,v_1{}^6 + 278640\,v_2{}^2)x^7 + (-15758115\,v_1{}^7 - 839805\,v_3 - 8860755\,v_1v_2{}^2 - 28077195\,v_1{}^4v_2)x^8 + O(x^9))$$

$$[7]_V(x) = (7\,x - 21\,v_1x^2 + 147\,v_1{}^2x^3 + (-1848\,v_1{}^3 - 1197\,v_2)x^4 + (22785\,v_1v_2 + 23226\,v_1{}^4)x^5 + (-295029\,v_1{}^5 - 350301\,v_1{}^2v_2)x^6 + (5822082\,v_1{}^3v_2 + 3977085\,v_1{}^6 + 821142\,v_2{}^2)x^7 + (-56547120\,v_1{}^7 - 2882397\,v_3 - 30926385\,v_1v_2{}^2 - 99963024\,v_1{}^4v_2)x^8 + O(x^9))$$

$$[8]_V(x) = (8\,x - 28\,v_1x^2 + 224\,v_1{}^2x^3 + (-3206\,v_1{}^3 - 2044\,v_2)x^4 + (45024\,v_1v_2 + 46256\,v_1{}^4)x^5 + (-674856\,v_1{}^5 - 797328\,v_1{}^2v_2)x^6 + (15186304\,v_1{}^3v_2 + 10433472\,v_1{}^6 + 2093056\,v_2{}^2)x^7 + (-170065329\,v_1{}^7 - 8388604\,v_3 - 91109382\,v_1v_2{}^2 - 298896934\,v_1{}^4v_2)x^8 + O(x^9))$$

Notice that for the Hazewinkel generators v_i we can verify that [Rez, p.15]

$$\begin{aligned}
[2]_V(x) &= 2x + \cdots, \\
[2]_V(x) &\equiv v_1 x^2 + \cdots \mod (2), \\
[2]_V(x) &\equiv v_2 x^4 + \cdots \mod (2, v_1), \\
[2]_V(x) &\equiv v_3 x^8 + \cdots \mod (2, v_1, v_2),
\end{aligned}$$

7.3. $F_W(x,y)$ **at** $p = 2$ **over** $\mathbb{Z}_{(2)}[W]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> lambda[0]:=1: w[0]:=p:
> L:=(m,n)->{ seq(p*lambda[j]=add(lambda[i]*w[j-i]^(p^i),
  i=0..j),j=m..n) };
> # the inputs m and n are the lower and upper bounds for the
> # subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> assign(expand(%));
> p:=2:
> m:=9: # the highest degree on x in the logarithm
> q:=5: # the number of lambda[i]'s in the logarithm,
> # so that we know the logarithm to degree x^(p^q)
> f_W:=x->sum(lambda[i]*x^(p^i),i=0..q);
> f_W(x);
> latex(%);
> log_W:=powpoly(f_W(x),x);
> tpsform(log_W,x);
> exp_W:=reversion(log_W);
> tpsform(exp_W,x);
> e_W:=x->simplify(convert(tpsform(exp_W,x,m+1),polynom));
> F_W:=(x,y)->sort(simplify(mtaylor(subs(z=f_W(x)+f_W(y),
  e_W(z)),[x,y],m+1)),[x,y]);
> F_W(x,y);
> latex(%);
```

The results of these computations are that logarithm $\log_W(x)$ at $p = 2$ equals

$$x - 1/2\, w_1 x^2 + (1/28\, {w_1}^3 - 1/14\, w_2)x^4 + (-\tfrac{1}{7112}\, {w_1}^7 + \tfrac{1}{3556}\, {w_1}^4 w_2 + \tfrac{1}{508}\, w_1 {w_2}^2 - \tfrac{1}{254}\, w_3)x^8 + (-\tfrac{1}{65534}\, w_4 + \tfrac{1}{16645636}\, {w_1}^8 w_3 - \tfrac{1}{233038904}\, {w_1}^{12} w_2 - \tfrac{1}{1834952}\, {w_2}^4 {w_1}^3 + \tfrac{1}{131068}\, w_1 {w_3}^2 - \tfrac{1}{33291272}\, {w_1}^9 {w_2}^2 + \tfrac{1}{917476}\, {w_2}^5 + \tfrac{1}{466077808}\, {w_1}^{15})x^{16} + (-\tfrac{1}{4294967294}\, w_5 - \tfrac{1}{71492462207828984}\, {w_1}^{24} w_3 + \tfrac{1}{281466386644996}\, {w_1}^{16} w_4 + \tfrac{1}{1090921692676}\, {w_2}^8 w_3 - \tfrac{1}{2181843385352}\, {w_2}^{10} w_1 + \tfrac{1}{60129542116}\, {w_3}^4 w_2 + \tfrac{1}{8589934588}\, w_1 {w_4}^2 - \tfrac{1}{562932773289992}\, {w_1}^{17} {w_3}^2 - \tfrac{1}{15272903697464}\, {w_2}^9 {w_1}^4 + \tfrac{1}{14298492441565796 8}\, {w_1}^{25} {w_2}^2 - \tfrac{1}{120259084232}\, {w_3}^4 {w_1}^3 + \tfrac{1}{100089447090960 5776}\, {w_1}^{28} w_2 + \tfrac{1}{7881058826059888}\, {w_1}^{19} {w_2}^4 - \tfrac{1}{3940529413029944}\, {w_1}^{16} {w_2}^5 - \tfrac{1}{2001788941819211552}\, {w_1}^{31} + \tfrac{1}{30545807394928}\, {w_2}^8 {w_1}^7)x^{32}$$

The formal group law $F_W(x,y)$ at $p = 2$ equals

$$x + y$$

$$+ w_1 xy$$

$$+ {w_1}^2 x^2 y + w_1 {}^2 x y^2$$

$$+ 6/7\, {w_1}^3 x^3 y + 2/7\, w_2 x^3 y + \tfrac{16}{7}\, {w_1}^3 x^2 y^2 + 3/7\, w_2 x^2 y^2 + 2/7\, w_2 x y^3 + 6/7\, {w_1}^3 x y^3$$

$$+ 5/7\, {w_1}^4 x^4 y + 4/7\, w_1 w_2 x^4 y + \tfrac{11}{7}\, w_1 w_2 x^3 y^2 + \tfrac{26}{7}\, {w_1}^4 x^3 y^2 + \tfrac{11}{7}\, w_1 w_2 x^2 y^3 + \tfrac{26}{7}\, {w_1}^4 x^2 y^3 + 4/7\, w_1 w_2 x y^4 + 5/7\, {w_1}^4 x y^4$$

$+4/7\,{w_1}^5x^5y + 6/7\,{w_1}^2w_2x^5y + 5\,{w_1}^5x^4y^2 + 4\,{w_1}^2w_2x^4y^2 + \frac{43}{7}\,{w_1}^2w_2x^3y^3 + \frac{66}{7}\,{w_1}^5x^3y^3 +$
$4\,{w_1}^2w_2x^2y^4 + 5\,{w_1}^5x^2y^4 + 6/7\,{w_1}^2w_2xy^5 + 4/7\,{w_1}^5xy^5$

$+\frac{22}{49}\,{w_1}^6x^6y + \frac{4}{49}\,{w_2}^2x^6y + \frac{52}{49}\,{w_1}^3w_2x^6y + \frac{18}{49}\,{w_2}^2x^5y^2 + \frac{381}{49}\,{w_1}^3w_2x^5y^2 + \frac{295}{49}\,{w_1}^6x^5y^2 + \frac{901}{49}\,{w_1}^6x^4y^3 +$
$\frac{34}{49}\,{w_2}^2x^4y^3 + \frac{876}{49}\,{w_1}^3w_2x^4y^3 + \frac{901}{49}\,{w_1}^6x^3y^4 + \frac{34}{49}\,{w_2}^2x^3y^4 + \frac{876}{49}\,{w_1}^3w_2x^3y^4 + \frac{295}{49}\,{w_1}^6x^2y^5 +$
$\frac{18}{49}\,{w_2}^2x^2y^5 + \frac{381}{49}\,{w_1}^3w_2x^2y^5 + \frac{22}{49}\,{w_1}^6xy^6 + \frac{4}{49}\,{w_2}^2xy^6 + \frac{52}{49}\,{w_1}^3w_2xy^6$

$+\frac{7352}{6223}\,{w_1}^4w_2x^7y + \frac{1426}{6223}\,w_1{w_2}^2x^7y + \frac{2166}{6223}\,{w_1}^7x^7y + \frac{4}{127}\,w_3x^7y + \frac{10071}{6223}\,w_1{w_2}^2x^6y^2 + \frac{79326}{6223}\,{w_1}^4w_2x^6y^2 +$
$\frac{14}{127}\,w_3x^6y^2 + \frac{41744}{6223}\,{w_1}^7x^6y^2 + \frac{26238}{6223}\,w_1{w_2}^2x^5y^3 + \frac{189025}{6223}\,{w_1}^7x^5y^3 + \frac{28}{127}\,w_3x^5y^3 + \frac{261903}{6223}\,{w_1}^4w_2x^5y^3 +$
$\frac{378909}{6223}\,{w_1}^4w_2x^4y^4 + \frac{35274}{6223}\,w_1{w_2}^2x^4y^4 + \frac{35}{127}\,w_3x^4y^4 + \frac{303242}{6223}\,{w_1}^7x^4y^4 + \frac{26238}{6223}\,w_1{w_2}^2x^3y^5 +$
$\frac{189025}{6223}\,{w_1}^7x^3y^5 + \frac{28}{127}\,w_3x^3y^5 + \frac{261903}{6223}\,{w_1}^4w_2x^3y^5 + \frac{41744}{6223}\,{w_1}^7x^2y^6 + \frac{79326}{6223}\,{w_1}^4w_2x^2y^6 +$
$\frac{10071}{6223}\,w_1{w_2}^2x^2y^6 + \frac{14}{127}\,w_3x^2y^6 + \frac{4}{127}\,w_3xy^7 + \frac{7352}{6223}\,{w_1}^4w_2xy^7 + \frac{1426}{6223}\,w_1{w_2}^2xy^7 + \frac{2166}{6223}\,{w_1}^7xy^7$

$\frac{8}{127}\,w_1w_3x^8y + \frac{1665}{6223}\,{w_1}^8x^8y + \frac{2852}{6223}\,{w_1}^2{w_2}^2x^8y + \frac{7592}{6223}\,{w_1}^5w_2x^8y + \frac{43959}{6223}\,{w_1}^8x^7y^2 + \frac{115028}{6223}\,{w_1}^5w_2x^7y^2 +$
$\frac{46}{127}\,w_1w_3x^7y^2 + \frac{28591}{6223}\,{w_1}^2{w_2}^2x^7y^2 + \frac{524450}{6223}\,{w_1}^5w_2x^6y^3 + \frac{278160}{6223}\,{w_1}^8x^6y^3 + \frac{100545}{6223}\,{w_1}^2{w_2}^2x^6y^3 +$
$\frac{126}{127}\,w_1w_3x^6y^3 + \frac{178097}{6223}\,{w_1}^2{w_2}^2x^5y^4 + \frac{1051929}{6223}\,{w_1}^5w_2x^5y^4 + \frac{203}{127}\,w_1w_3x^5y^4 + \frac{653421}{6223}\,{w_1}^8x^5y^4 +$
$\frac{178097}{6223}\,{w_1}^2{w_2}^2x^4y^5 + \frac{653421}{6223}\,{w_1}^8x^4y^5 + \frac{203}{127}\,w_1w_3x^4y^5 + \frac{1051929}{6223}\,{w_1}^5w_2x^4y^5 + \frac{524450}{6223}\,{w_1}^5w_2x^3y^6 +$
$\frac{278160}{6223}\,{w_1}^8x^3y^6 + \frac{126}{127}\,w_1w_3x^3y^6 + \frac{100545}{6223}\,{w_1}^2{w_2}^2x^3y^6 + \frac{46}{127}\,w_1w_3x^2y^7 + \frac{115028}{6223}\,{w_1}^5w_2x^2y^7 +$
$\frac{28591}{6223}\,{w_1}^2{w_2}^2x^2y^7 + \frac{43959}{6223}\,{w_1}^8x^2y^7 + \frac{7592}{6223}\,{w_1}^5w_2xy^8 + \frac{1665}{6223}\,{w_1}^8xy^8 + \frac{8}{127}\,w_1w_3xy^8 + \frac{2852}{6223}\,{w_1}^2{w_2}^2xy^8$

Some values of the n-series for $F_W(x,y)$ at $p = 2$ are:

$[2]_W(x) = (2\,x + {w_1}x^2 + 2\,{w_1}^2x^3 + (4\,{w_1}^3 + w_2)x^4 + (\frac{62}{7}\,{w_1}^4 + \frac{30}{7}\,w_1w_2)x^5 + (\frac{144}{7}\,{w_1}^5 + \frac{111}{7}\,{w_1}^2w_2)x^6 +$
$(\frac{348}{7}\,{w_1}^6 + \frac{374}{7}\,{w_1}^3w_2 + \frac{16}{7}\,{w_2}^2)x^7 + (w_3 + \frac{872}{49}\,w_1{w_2}^2 + \frac{8473}{49}\,{w_1}^4w_2 + \frac{6056}{49}\,{w_1}^7)x^8 + O(x^9))$

$[3]_W(x) =$
$(3\,x + 3\,{w_1}x^2 + 9\,{w_1}^2x^3 + (\frac{201}{7}\,{w_1}^3 + \frac{39}{7}\,w_2)x^4 + (\frac{711}{7}\,{w_1}^4 + \frac{279}{7}\,w_1w_2)x^5 + (\frac{2655}{7}\,{w_1}^5 + \frac{1683}{7}\,{w_1}^2w_2)x^6 +$
$(\frac{72252}{49}\,{w_1}^6 + \frac{64800}{49}\,{w_1}^3w_2 + \frac{2106}{49}\,{w_2}^2)x^7 + (\frac{3279}{127}\,w_3 + \frac{3534402}{6223}\,w_1{w_2}^2 + \frac{43323654}{6223}\,{w_1}^4w_2 + \frac{36724899}{6223}\,{w_1}^7)x^8 + O(x^9))$

$[4]_W(x) =$
$(4\,x + 6\,{w_1}x^2 + 24\,{w_1}^2x^3 + (105\,{w_1}^3 + 18\,w_2)x^4 + (\frac{3564}{7}\,{w_1}^4 + \frac{1272}{7}\,w_1w_2)x^5 + (\frac{18282}{7}\,{w_1}^5 + \frac{10644}{7}\,{w_1}^2w_2)x^6 +$
$(\frac{97656}{7}\,{w_1}^6 + \frac{81072}{7}\,{w_1}^3w_2 + \frac{2304}{7}\,{w_2}^2)x^7 + (258\,w_3 + \frac{301521}{49}\,w_1{w_2}^2 + \frac{4127547}{49}\,{w_1}^4w_2 + \frac{3760140}{49}\,{w_1}^7)x^8 + O(x^9))$

$[5]_W(x) = (5\,x + 10\,{w_1}x^2 + 50\,{w_1}^2x^3 + (\frac{1945}{7}\,{w_1}^3 + \frac{310}{7}\,w_2)x^4 + (\frac{11975}{7}\,{w_1}^4 + \frac{4050}{7}\,w_1w_2)x^5 +$
$(\frac{78075}{7}\,{w_1}^5 + \frac{43350}{7}\,{w_1}^2w_2)x^6 + (\frac{3711000}{49}\,{w_1}^6 + \frac{2951750}{49}\,{w_1}^3w_2 + \frac{77500}{49}\,{w_2}^2)x^7 + (\frac{195310}{127}\,w_3 +$
$\frac{238172255}{6223}\,w_1{w_2}^2 + \frac{3477046315}{6223}\,{w_1}^4w_2 + \frac{3295818755}{6223}\,{w_1}^7)x^8 + O(x^9))$

$[6]_W(x) = (6\,x + 15\,{w_1}x^2 + 90\,{w_1}^2x^3 + (\frac{4245}{7}\,{w_1}^3 + \frac{645}{7}\,w_2)x^4 + (\frac{31680}{7}\,{w_1}^4 + \frac{10350}{7}\,w_1w_2)x^5 +$
$(\frac{250515}{7}\,{w_1}^5 + \frac{134955}{7}\,{w_1}^2w_2)x^6 + (\frac{14443110}{49}\,{w_1}^6 + \frac{11180430}{49}\,{w_1}^3w_2 + \frac{278640}{49}\,{w_2}^2)x^7 + (\frac{839805}{127}\,w_3 +$
$\frac{1051413045}{6223}\,w_1{w_2}^2 + \frac{16008487575}{6223}\,{w_1}^4w_2 + \frac{15560172825}{6223}\,{w_1}^7)x^8 + O(x^9))$

$[7]_W(x) = (7\,x + 21\,{w_1}x^2 + 147\,{w_1}^2x^3 + (1164\,{w_1}^3 + 171\,w_2)x^4 + (10206\,{w_1}^4 + 3255\,w_1w_2)x^5 +$
$(94857\,{w_1}^5 + 50043\,{w_1}^2w_2)x^6 + (918309\,{w_1}^6 + 697662\,{w_1}^3w_2 + 16758\,{w_2}^2)x^7 + (\frac{2882397}{127}\,w_3 +$
$\frac{74979591}{127}\,w_1{w_2}^2 + \frac{1175895204}{127}\,{w_1}^4w_2 + \frac{1162934088}{127}\,{w_1}^7)x^8 + O(x^9))$

$[8]_W(x) = (8\,x + 28\,{w_1}x^2 + 224\,{w_1}^2x^3 + (2038\,{w_1}^3 + 292\,w_2)x^4 + (20528\,{w_1}^4 + 6432\,w_1w_2)x^5 +$
$(219240\,{w_1}^5 + 113904\,{w_1}^2w_2)x^6 + (\frac{17073216}{7}\,{w_1}^6 + \frac{12794240}{7}\,{w_1}^3w_2 + \frac{299008}{7}\,{w_2}^2)x^7 + (66052\,w_3 +$
$\frac{12185258}{7}\,w_1{w_2}^2 + \frac{195338086}{7}\,{w_1}^4w_2 + \frac{195646271}{7}\,{w_1}^7)x^8 + O(x^9))$

Notice that for the Araki generators w_i we can verify that [Rez, p.15]

$$\begin{aligned}
[2]_W(x) &= 2x + \cdots, \\
[2]_W(x) &\equiv w_1x^2 + \cdots \mod (2), \\
[2]_W(x) &\equiv w_2x^4 + \cdots \mod (2, w_1), \\
[2]_W(x) &\equiv w_3x^8 + \cdots \mod (2, w_1, w_2),
\end{aligned}$$

7.4. $F_S(x,y)$ **at** $p = 2$ **over** $\mathbb{Z}[S]$**.** Using the Maple commands below, we can explicitly compute this formal group law. Since this formal group law seems ancillary, we leave it to the reader to construct it using [Haz78, p.16, §3.1], [Haz77a, p.132, 2.2.3], [Haz77a, p.133, 2.2.6], [Haz77a, p.137, 4.1.4, 4.2.3], [Haz77a, p.138, 4.3.3].

```
> restart: with(powseries):
> p:=2:
> # The b_i are the coefficients in the logarithm
> b[0]:=0:
> b[1]:=1:
> b[2]:=s[2]/2:
> b[3]:=s[3]:
> b[4]:=s[4]/2 + s[2]*s[2]^2/4:
> b[5]:=s[5]:
> b[6]:=s[2]/2*s[3]^2 + s[6]:
> b[7]:=s[7]:
> b[8]:=s[8]/2 + s[4]*s[2]^4/4 + s[2]*s[4]^2/4
  + s[2]*s[2]^2*s[2]^4/8:
> b[9]:=s[9]:
> b[10]:=s[2]/2*s[5]^2 + s[10]:
> b[11]:=s[11]:
> b[12]:=s[12]+s[4]/2*s[3]^4 + s[2]*s[2]^2/4*s[3]^4
  + s[2]/2*s[6]^2:
> b[13]:=s[13]:
> b[14]:=s[14] + s[2]/2*s[7]^2:
> b[15]:=s[15]:
> b[16]:=s[16]/2 + s[8]*s[2]^8/4 + s[2]*s[8]^2/4
  + s[4]*s[2]^4*s[2]^8/8 + s[2]*s[4]^2*s[2]^8/8
  + s[2]*s[2]^2*s[4]^4/8 + s[2]*s[2]^2*s[2]^4*s[2]^8/16:
> b[17]:=s[17]:
> b[18]:=s[18]/2 + s[2]/2*s[9]^2:;
> b[19]:=s[19]:
> b[20]:=s[4]/2*s[5]^4 + s[2]*s[2]^2/4*s[5]^4
  + s[2]/2*s[10]^2 + s[20]:
> m:=17: # the truncation degree
> f_S:=x->sum(b[i]*x^i,i=0..(m-1));
> f_S(x);
> latex(%);
> log_S:=powpoly(f_S(x),x);
> tpsform(log_S,x);
> exp_S:=reversion(log_S);
> simplify(tpsform(exp_S,x,9));
> e_S:=x->convert(simplify(tpsform(exp_S,x,9)),
  polynom);
> F_S:=(x,y)->sort( simplify( mtaylor( subs(z=
  f_S(x)+f_S(y),e_S(z)), [x,y], 9 ) ) , [x,y]);
```



```
> F_S(x,y);
> latex(%);
```

The results of these computations are that the logarithm $\log_S(x)$ at $p = 2$ equals

$$x + 1/2\, s_2x^2 + s_3x^3 + (1/2\, s_4 + 1/4\, {s_2}^3)x^4 + s_5x^5 + (1/2\, s_2{s_3}^2 + s_6)x^6 + s_7x^7 + (1/2\, s_8 + 1/4\, s_4{s_2}^4 + 1/4\, s_2{s_4}^2 + 1/8\, {s_2}^7)x^8 + s_9x^9 + (1/2\, s_2{s_5}^2 + s_{10})x^{10} + s_{11}x^{11} + (s_{12} + 1/2\, s_4{s_3}^4 + 1/4\, {s_2}^3{s_3}^4 + 1/2\, s_2{s_6}^2)x^{12} + s_{13}x^{13} + (s_{14} + 1/2\, s_2{s_7}^2)x^{14} + s_{15}x^{15} + (1/2\, s_{16} + 1/4\, s_8{s_2}^8 + 1/4\, s_2{s_8}^2 + 1/8\, s_4{s_2}^{12} + 1/8\, {s_2}^9{s_4}^2 + 1/8\, {s_2}^3{s_4}^4 + 1/16\, {s_2}^{15})x^{16}$$

and the formal group law $F_S(x,y)$ at $p = 2$ equals

$$x + y$$

$$-s_2xy$$

$$-3\, s_3x^2y + {s_2}^2x^2y - 3\, s_3xy^2 + {s_2}^2xy^2$$

$$-2\, {s_2}^3x^3y + 6\, s_3s_2x^3y - 2\, s_4x^3y + 12\, s_3s_2x^2y^2 - 3\, s_4x^2y^2 - 4\, {s_2}^3x^2y^2 - 2\, s_4xy^3 + 6\, s_3s_2xy^3 - 2\, {s_2}^3xy^3$$

$$-5\, s_5x^4y - 9\, s_3{s_2}^2x^4y + 9\, {s_3}^2x^4y + 3\, {s_2}^4x^4y + 4\, s_2s_4x^4y + 27\, {s_3}^2x^3y^2 - 10\, s_5x^3y^2 + 11\, s_2s_4x^3y^2 + 10\, {s_2}^4x^3y^2 - 33\, s_3{s_2}^2x^3y^2 + 10\, {s_2}^4x^2y^3 - 33\, s_3{s_2}^2x^2y^3 + 27\, {s_3}^2x^2y^3 - 10\, s_5x^2y^3 + 11\, s_2s_4x^2y^3 - 9\, s_3{s_2}^2xy^4 + 4\, s_2s_4xy^4 + 9\, {s_3}^2xy^4 + 3\, {s_2}^4xy^4 - 5\, s_5xy^4$$

$$-6\, s_6x^5y - 30\, s_2{s_3}^2x^5y - 4\, {s_2}^5x^5y - 6\, {s_2}^2s_4x^5y + 18\, s_3{s_2}^3x^5y + 12\, s_3s_4x^5y + 10\, s_5s_2x^5y - 21\, {s_2}^5x^4y^2 - 28\, {s_2}^2s_4x^4y^2 + 45\, s_3s_4x^4y^2 + 35\, s_5s_2x^4y^2 + 93\, s_3{s_2}^3x^4y^2 - 138\, s_2{s_3}^2x^4y^2 - 15\, s_6x^4y^2 + 50\, s_5s_2x^3y^3 - 217\, s_2{s_3}^2x^3y^3 + 66\, s_3s_4x^3y^3 + 151\, s_3{s_2}^3x^3y^3 - 43\, {s_2}^2s_4x^3y^3 - 34\, {s_2}^5x^3y^3 - 20\, s_6x^3y^3 - 21\, {s_2}^5x^2y^4 + 93\, s_3{s_2}^3x^2y^4 - 15\, s_6x^2y^4 - 28\, {s_2}^2s_4x^2y^4 + 45\, s_3s_4x^2y^4 + 35\, s_5s_2x^2y^4 - 138\, s_2{s_3}^2x^2y^4 + 10\, s_5s_2xy^5 + 18\, s_3{s_2}^3xy^5 - 6\, {s_2}^2s_4xy^5 - 30\, s_2{s_3}^2xy^5 - 4\, {s_2}^5xy^5 - 6\, s_6xy^5 + 12\, s_3s_4xy^5$$

$$+6\, {s_2}^6x^6y + 12\, {s_2}^3s_4x^6y + 60\, {s_2}^2{s_3}^2x^6y + 12\, s_2s_6x^6y - 15\, s_5{s_2}^2x^6y - 33\, s_3{s_2}^4x^6y + 4\, {s_4}^2x^6y - 36\, s_2s_3s_4x^6y - 7\, s_7x^6y + 30\, s_3s_5x^6y - 27\, {s_3}^3x^6y - 234\, s_3{s_2}^4x^5y^2 + 417\, {s_2}^2{s_3}^2x^5y^2 - 21\, s_7x^5y^2 - 162\, {s_3}^3x^5y^2 - 85\, s_5{s_2}^2x^5y^2 + 135\, s_3s_5x^5y^2 - 210\, s_2s_3s_4x^5y^2 + 75\, {s_2}^3s_4x^5y^2 + 43\, {s_2}^6x^5y^2 + 18\, {s_4}^2x^5y^2 + 51\, s_2s_6x^5y^2 + 95\, s_2s_6x^4y^3 - 547\, s_3{s_2}^4x^4y^3 + 164\, {s_2}^3s_4x^4y^3 + 961\, {s_2}^2{s_3}^2x^4y^3 - 351\, {s_3}^3x^4y^3 + 255\, s_3s_5x^4y^3 - 35\, s_7x^4y^3 - 175\, s_5{s_2}^2x^4y^3 - 441\, s_2s_3s_4x^4y^3 + 34\, {s_4}^2x^4y^3 + 101\, {s_2}^6x^4y^3 - 175\, s_5{s_2}^2x^3y^4 + 961\, {s_2}^2{s_3}^2x^3y^4 + 164\, {s_2}^3s_4x^3y^4 - 547\, s_3{s_2}^4x^3y^4 + 34\, {s_4}^2x^3y^4 - 441\, s_2s_3s_4x^3y^4 + 95\, s_2s_6x^3y^4 - 35\, s_7x^3y^4 + 255\, s_3s_5x^3y^4 - 351\, {s_3}^3x^3y^4 + 101\, {s_2}^6x^3y^4 - 234\, s_3{s_2}^4x^2y^5 - 85\, s_5{s_2}^2x^2y^5 + 51\, s_2s_6x^2y^5 - 21\, s_7x^2y^5 + 75\, {s_2}^3s_4x^2y^5 + 18\, {s_4}^2x^2y^5 - 210\, s_2s_3s_4x^2y^5 + 135\, s_3s_5x^2y^5 - 162\, {s_3}^3x^2y^5 + 43\, {s_2}^6x^2y^5 + 417\, {s_2}^2{s_3}^2x^2y^5 + 12\, {s_2}^3s_4xy^6 + 30\, s_3s_5xy^6 + 4\, {s_4}^2xy^6 - 36\, s_2s_3s_4xy^6 - 7\, s_7xy^6 - 27\, {s_3}^3xy^6 + 12\, s_2s_6xy^6 + 6\, {s_2}^6xy^6 - 15\, s_5{s_2}^2xy^6 - 33\, s_3{s_2}^4xy^6 + 60\, {s_2}^2{s_3}^2xy^6$$

$$-18\, {s_2}^2s_6x^7y + 126\, s_2{s_3}^3x^7y + 36\, s_3s_6x^7y - 54\, {s_3}^2s_4x^7y - 24\, s_4{s_2}^4x^7y - 14\, s_2{s_4}^2x^7y + 14\, s_7s_2x^7y + 54\, s_3{s_2}^5x^7y - 126\, {s_2}^3{s_3}^2x^7y + 20\, s_4s_5x^7y + 30\, s_5{s_2}^3x^7y + 72\, {s_2}^2s_3s_4x^7y - 90\, s_2s_3s_5x^7y - 10\, {s_2}^7x^7y - 4\, s_8x^7y + 519\, s_3{s_2}^5x^6y^2 - 89\, s_2{s_4}^2x^6y^2 + 189\, s_3s_6x^6y^2 - 1167\, {s_2}^3{s_3}^2x^6y^2 - 120\, {s_2}^2s_6x^6y^2 + 70\, s_7s_2x^6y^2 + 612\, {s_2}^2s_3s_4x^6y^2 - 378\, {s_3}^2s_4x^6y^2 - 190\, s_4{s_2}^4x^6y^2 + 1026\, s_2{s_3}^3x^6y^2 - 88\, {s_2}^7x^6y^2 + 105\, s_4s_5x^6y^2 + 220\, s_5{s_2}^3x^6y^2 - 14\, s_8x^6y^2 - 615\, s_2s_3s_5x^6y^2 + 1654\, s_3{s_2}^5x^5y^3 - 1008\, {s_3}^2s_4x^5y^3 + 161\, s_7s_2x^5y^3 + 438\, s_3s_6x^5y^3 + 605\, s_5{s_2}^3x^5y^3 - 551\, s_4{s_2}^4x^5y^3 + 3000\, s_2{s_3}^3x^5y^3 - 311\, {s_2}^2s_6x^5y^3 - 275\, {s_2}^7x^5y^3 + 1788\, {s_2}^2s_3s_4x^5y^3 - 226\, s_2{s_4}^2x^5y^3 - 28\, s_8x^5y^3 + 240\, s_4s_5x^5y^3 - 1605\, s_2s_3s_5x^5y^3 - 3655\, {s_2}^3{s_3}^2x^5y^3 - 1368\, {s_3}^2s_4x^4y^4 + 2379\, s_3{s_2}^5x^4y^4 + 570\, s_3s_6x^4y^4 + 310\, s_4s_5x^4y^4 + 830\, s_5{s_2}^3x^4y^4 - 302\, s_2{s_4}^2x^4y^4 + 210\, s_7s_2x^4y^4 + 4200\, s_2{s_3}^3x^4y^4 - 420\, {s_2}^2s_6x^4y^4 - 5229\, {s_2}^3{s_3}^2x^4y^4 - 394\, {s_2}^7x^4y^4 + 2493\, {s_2}^2s_3s_4x^4y^4 - 35\, s_8x^4y^4 - 769\, s_4{s_2}^4x^4y^4 - 2160\, s_2s_3s_5x^4y^4 - 3655\, {s_2}^3{s_3}^2x^3y^5 + 240\, s_4s_5x^3y^5 + 1654\, s_3{s_2}^5x^3y^5 - 28\, s_8x^3y^5 - 226\, s_2{s_4}^2x^3y^5 - 551\, s_4{s_2}^4x^3y^5 + 605\, s_5{s_2}^3x^3y^5 - 275\, {s_2}^7x^3y^5 +$$

$1788\,{s_2}^2 s_3 s_4 x^3 y^5 - 1605\,s_2 s_3 s_5 x^3 y^5 + 161\,s_7 s_2 x^3 y^5 - 311\,{s_2}^2 s_6 x^3 y^5 + 3000\,s_2 {s_3}^3 x^3 y^5 + 438\,s_3 s_6 x^3 y^5 - 1008\,{s_3}^2 s_4 x^3 y^5 - 120\,{s_2}^2 s_6 x^2 y^6 - 378\,{s_3}^2 s_4 x^2 y^6 + 519\,s_3 {s_2}^5 x^2 y^6 - 1167\,{s_2}^3 {s_3}^2 x^2 y^6 + 189\,s_3 s_6 x^2 y^6 - 89\,s_2 {s_4}^2 x^2 y^6 + 70\,s_7 s_2 x^2 y^6 + 1026\,s_2 {s_3}^3 x^2 y^6 - 88\,{s_2}^7 x^2 y^6 - 615\,s_2 s_3 s_5 x^2 y^6 - 190\,s_4 {s_2}^4 x^2 y^6 + 612\,{s_2}^2 s_3 s_4 x^2 y^6 + 105\,s_4 s_5 x^2 y^6 - 14\,s_8 x^2 y^6 + 220\,s_5 {s_2}^3 x^2 y^6 - 54\,{s_3}^2 s_4 x y^7 - 24\,s_4 {s_2}^4 x y^7 - 18\,{s_2}^2 s_6 x y^7 + 36\,s_3 s_6 x y^7 - 14\,s_2 {s_4}^2 x y^7 - 90\,s_2 s_3 s_5 x y^7 - 126\,{s_2}^3 {s_3}^2 x y^7 + 30\,s_5 {s_2}^3 x y^7 + 126\,s_2 {s_3}^3 x y^7 - 10\,{s_2}^7 x y^7 + 14\,s_7 s_2 x y^7 + 72\,{s_2}^2 s_3 s_4 x y^7 - 4\,s_8 x y^7 + 20\,s_4 s_5 x y^7 + 54\,s_3 {s_2}^5 x y^7$

Some values of the n-series for $F_S(x,y)$ at $p = 2$ are:

$[2]_S(x) = (2\,x - s_2 x^2 + (-6\,s_3 + 2\,{s_2}^2)x^3 + (24\,s_3 s_2 - 8\,{s_2}^3 - 7\,s_4)x^4 + (-84\,s_3 {s_2}^2 + 26\,{s_2}^4 + 72\,{s_3}^2 + 30\,s_2 s_4 - 30\,s_5)x^5 + (180\,s_3 s_4 - 111\,{s_2}^2 s_4 - 84\,{s_2}^5 + 373\,s_3 {s_2}^3 + 140\,s_5 s_2 - 553\,s_2 {s_3}^2 - 62\,s_6)x^6 + (-1374\,s_2 s_3 s_4 + 300\,{s_2}^6 - 550\,s_5 {s_2}^2 - 1628\,s_3 {s_2}^4 + 316\,s_2 s_6 + 2876\,{s_2}^2 {s_3}^2 - 1080\,{s_3}^3 + 112\,{s_4}^2 - 126\,s_7 + 502\,{s_2}^3 s_4 + 840\,s_3 s_5)x^7 + (-1140\,{s_2}^7 - 2299\,s_4 {s_2}^4 - 960\,s_2 {s_4}^2 - 127\,s_8 + 1040\,s_4 s_5 + 2540\,s_5 {s_2}^3 - 1318\,{s_2}^2 s_6 + 6833\,s_3 {s_2}^5 - 15125\,{s_2}^3 {s_3}^2 + 1896\,s_3 s_6 - 4248\,{s_3}^2 s_4 - 6780\,s_2 s_3 s_5 + 7437\,{s_2}^2 s_3 s_4 + 700\,s_7 s_2 + 12504\,s_2 {s_3}^3)x^8 + O(x^9))$

$[3]_S(x) = (3\,x - 3\,s_2 x^2 + (-24\,s_3 + 9\,{s_2}^2)x^3 + (153\,s_3 s_2 - 51\,{s_2}^3 - 39\,s_4)x^4 + (-855\,s_3 {s_2}^2 + 261\,{s_2}^4 + 648\,{s_3}^2 + 279\,s_2 s_4 - 240\,s_5)x^5 + (2349\,s_3 s_4 - 1683\,{s_2}^2 s_4 - 1341\,{s_2}^5 + 5778\,s_3 {s_2}^3 + 1935\,s_5 s_2 - 8022\,s_2 {s_3}^2 - 726\,s_6)x^6 + (-29772\,s_2 s_3 s_4 + 7452\,{s_2}^6 - 12600\,s_5 {s_2}^2 - 39348\,s_3 {s_2}^4 + 6552\,s_2 s_6 + 67752\,{s_2}^2 {s_3}^2 - 22680\,{s_3}^3 + 2106\,{s_4}^2 - 2184\,s_7 + 11664\,{s_2}^3 s_4 + 16200\,s_3 s_5)x^7 + (-43869\,{s_2}^7 - 82914\,s_4 {s_2}^4 - 30102\,s_2 {s_4}^2 - 3279\,s_8 + 28755\,s_4 s_5 + 89910\,s_5 {s_2}^3 - 45891\,{s_2}^2 s_6 + 261063\,s_3 {s_2}^5 - 559692\,{s_2}^3 {s_3}^2 + 54594\,s_3 s_6 - 130815\,{s_3}^2 s_4 - 220410\,s_2 s_3 s_5 + 263412\,{s_2}^2 s_3 s_4 + 21861\,s_7 s_2 + 423954\,s_2 {s_3}^3)x^8 + O(x^9))$

$[4]_S(x) = (4\,x - 6\,s_2 x^2 + (-60\,s_3 + 24\,{s_2}^2)x^3 + (528\,s_3 s_2 - 177\,{s_2}^3 - 126\,s_4)x^4 + (-4056\,s_3 {s_2}^2 + 1236\,{s_2}^4 + 2880\,{s_3}^2 + 1272\,s_2 s_4 - 1020\,s_5)x^5 + (13728\,s_3 s_4 - 10644\,{s_2}^2 s_4 - 8694\,{s_2}^5 + 36840\,s_3 {s_2}^3 + 11760\,s_5 s_2 - 49350\,s_2 {s_3}^2 - 4092\,s_6)x^6 + (-243816\,s_2 s_3 s_4 + 65544\,{s_2}^6 - 106920\,s_5 {s_2}^2 - 340380\,s_3 {s_2}^4 + 53232\,s_2 s_6 + 576552\,{s_2}^2 {s_3}^2 - 181440\,{s_3}^3 + 16128\,{s_4}^2 - 16380\,s_7 + 99504\,{s_2}^3 s_4 + 125760\,s_3 s_5)x^7 + (-522456\,{s_2}^7 - 957981\,s_4 {s_2}^4 - 324225\,s_2 {s_4}^2 - 32766\,s_8 + 291840\,s_4 s_5 + 1033440\,s_5 {s_2}^3 - 523176\,{s_2}^2 s_6 + 3080940\,s_3 {s_2}^5 - 6488004\,{s_2}^3 {s_3}^2 + 565056\,s_3 s_6 - 1381824\,{s_3}^2 s_4 - 2412240\,s_2 s_3 s_5 + 2994120\,{s_2}^2 s_3 s_4 + 237552\,s_7 s_2 + 4691520\,s_2 {s_3}^3)x^8 + O(x^9))$

$[5]_S(x) = (5\,x - 10\,s_2 x^2 + (-120\,s_3 + 50\,{s_2}^2)x^3 + (1350\,s_3 s_2 - 455\,{s_2}^3 - 310\,s_4)x^4 + (-13200\,s_3 {s_2}^2 + 4025\,{s_2}^4 + 9000\,{s_3}^2 + 4050\,s_2 s_4 - 3120\,s_5)x^5 + (53250\,s_3 s_4 - 43350\,{s_2}^2 s_4 - 35925\,{s_2}^5 + 150625\,s_3 {s_2}^3 + 46850\,s_5 s_2 - 197260\,s_2 {s_3}^2 - 15620\,s_6)x^6 + (-1217700\,s_2 s_3 s_4 + 342000\,{s_2}^6 - 546700\,s_5 {s_2}^2 - 1756850\,s_3 {s_2}^4 + 265600\,s_2 s_6 + 2943050\,{s_2}^2 {s_3}^2 - 891000\,{s_3}^3 + 77500\,{s_4}^2 - 78120\,s_7 + 510250\,{s_2}^3 s_4 + 609000\,s_3 s_5)x^7 + (-3438465\,{s_2}^7 - 6195955\,s_4 {s_2}^4 - 2010705\,s_2 {s_4}^2 - 195310\,s_8 + 1748750\,s_4 s_5 + 6669875\,s_5 {s_2}^3 - 3359200\,{s_2}^2 s_6 + 20136125\,s_3 {s_2}^5 - 41920475\,{s_2}^3 {s_3}^2 + 3421500\,s_3 s_6 - 8439750\,{s_3}^2 s_4 - 15087900\,s_2 s_3 s_5 + 19134750\,{s_2}^2 s_3 s_4 + 1484350\,s_7 s_2 + 29446500\,s_2 {s_3}^3)x^8 + O(x^9))$

$[6]_S(x) = (6\,x - 15\,s_2 x^2 + (-210\,s_3 + 90\,{s_2}^2)x^3 + (2880\,s_3 s_2 - 975\,{s_2}^3 - 645\,s_4)x^4 + (-34200\,s_3 {s_2}^2 + 10440\,{s_2}^4 + 22680\,{s_3}^2 + 10350\,s_2 s_4 - 7770\,s_5)x^5 + (160380\,s_3 s_4 - 134955\,{s_2}^2 s_4 - 112905\,{s_2}^5 + 469935\,s_3 {s_2}^3 + 143820\,s_5 s_2 - 605895\,s_2 {s_3}^2 - 46650\,s_6)x^6 + (-4488390\,s_2 s_3 s_4 + 1298430\,{s_2}^6 - 2048670\,s_5 {s_2}^2 - 6619410\,s_3 {s_2}^4 + 979740\,s_2 s_6 + 11001240\,{s_2}^2 {s_3}^2 - 3243240\,{s_3}^3 + 278640\,{s_4}^2 - 279930\,s_7 + 1915650\,{s_2}^3 s_4 + 2199960\,s_3 s_5)x^7 + (-15758115\,{s_2}^7 - 28077195\,s_4 {s_2}^4 - 8860755\,s_2 {s_4}^2 - 839805\,s_8 + 7536240\,s_4 s_5 + 30191940\,s_5 {s_2}^3 - 15151230\,{s_2}^2 s_6 + 91801350\,s_3 {s_2}^5 - 189601245\,{s_2}^3 {s_3}^2 + 14835960\,s_3 s_6 - 36757800\,{s_3}^2 s_4 - 66830220\,s_2 s_3 s_5 + 85945455\,{s_2}^2 s_3 s_4 + 6578460\,s_7 s_2 + 130562280\,s_2 {s_3}^3)x^8 + O(x^9))$

$[7]_S(x) = (7\,x - 21\,s_2 x^2 + (-336\,s_3 + 147\,{s_2}^2)x^3 + (5439\,s_3 s_2 - 1848\,{s_2}^3 - 1197\,s_4)x^4 + (-75999\,s_3 {s_2}^2 + 23226\,{s_2}^4 + 49392\,{s_3}^2 + 22785\,s_2 s_4 - 16800\,s_5)x^5 + (406455\,s_3 s_4 - 350301\,{s_2}^2 s_4 - 295029\,{s_2}^5 + 1221423\,s_3 {s_2}^3 + 369705\,s_5 s_2 - 1556898\,s_2 {s_3}^2 - 117642\,s_6)x^6 + (-13458144\,s_2 s_3 s_4 + 3977085\,{s_2}^6 - 6218100\,s_5 {s_2}^2 - 20161638\,s_3 {s_2}^4 + 2941176\,s_2 s_6 + 33309906\,{s_2}^2 {s_3}^2 - 9631440\,{s_3}^3 + 821142\,{s_4}^2 - 823536\,s_7 + 5822082\,{s_2}^3 s_4 + 6503280\,s_3 s_5)x^7 + (-56547120\,{s_2}^7 - 99963024\,s_4 {s_2}^4 - 30926385\,s_2 {s_4}^2 - 2882397\,s_8 + 25894785\,s_4 s_5 + 107422455\,s_5 {s_2}^3 - 53765103\,{s_2}^2 s_6 + 328108998\,s_3 {s_2}^5 - 673703205\,{s_2}^3 {s_3}^2 + 51176286\,s_3 s_6 - 127119573\,{s_3}^2 s_4 - 234031350\,s_2 s_3 s_5 + 303933672\,{s_2}^2 s_3 s_4 + 23059155\,s_7 s_2 + 457252614\,s_2 {s_3}^3)x^8 + O(x^9))$

$[8]_S(x) = (8\,x - 28\,s_2 x^2 + (-504\,s_3 + 224\,{s_2}^2)x^3 + (9408\,s_3 s_2 - 3206\,{s_2}^3 - 2044\,s_4)x^4 + (-151200\,s_3 {s_2}^2 + 46256\,{s_2}^4 + 96768\,{s_3}^2 + 45024\,s_2 s_4 - 32760\,s_5)x^5 + (908544\,s_3 s_4 - 797328\,{s_2}^2 s_4 - 674856\,{s_2}^5 + 2782528\,s_3 {s_2}^3 + 835520\,s_5 s_2 - 3515932\,s_2 {s_3}^2 - 262136\,s_6)x^6 + (-34743072\,s_2 s_3 s_4 + 10433472\,{s_2}^6 - 16203040\,s_5 {s_2}^2 - 52664528\,s_3 {s_2}^4 + 7602112\,s_2 s_6 + 86610272\,{s_2}^2 {s_3}^2 - 24675840\,{s_3}^3 + 2093056\,{s_4}^2 - 2097144\,s_7 + 15186304\,{s_2}^3 s_4 + 16611840\,s_3 s_5)x^7 + (-170065329\,{s_2}^7 - 298896934\,s_4 {s_2}^4 - 91109382\,s_2 {s_4}^2 - 8388604\,s_8 + 75407360\,s_4 s_5 + 321063680\,s_5 {s_2}^3 - 160365856\,{s_2}^2 s_6 + 983688608\,s_3 {s_2}^5 - 2010766352\,{s_2}^3 {s_3}^2 + 149420544\,s_3 s_6 - 371750400\,{s_3}^2 s_4 - 691037760\,s_2 s_3 s_5 + 903991872\,{s_2}^2 s_3 s_4 + 68157376\,s_7 s_2 + 1349773824\,s_2 {s_3}^3)x^8 + O(x^9))$

7.5. $F_{BP,T}(x,y)$ **at** $p=2$ **over** $BP_*BP \cong BP_*[T]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> # Let C_j denote [CP^j].
> BPT:=proc(p,d)
> local tot,C,t,f_BPT,logBPT,expBPT,e_BPT,F_BPT;
> tot:=evalf(1+ceil(log(d-1)/log(p)));
> # print(tot); # the evalf above is necessary!!!
> C[0]:=1: t[0]:=1:
> f_BPT:=x->add( (add(C[p^j-1]*t[i-j]^(p^j)/(p^j),
  j=0..i))*x^(p^i), i=0..tot);
> print(f_BPT(x));
> latex(f_BPT(x));
> logBPT:=powpoly(f_BPT(x),x);
> expBPT:=reversion(logBPT);
> e_BPT:=x->convert(simplify(tpsform(expBPT,x,d+2)),
  polynom);
> F_BPT:=(x,y)->sort(simplify(mtaylor(subs(z=f_BPT(x)
  +f_BPT(y),e_BPT(z)),[x,y],d+1)), [x,y]);
> print(F_BPT(x,y));
> latex(F_BPT(x,y));
> end proc:
> BPT(2,9);
```

The results of these computations are that the logarithm $\log_{BP,T}(x)$ at $p=2$ equals

$$x + (t_1 + 1/2\,C_1)x^2 + (t_2 + 1/2\,C_1t_1^2 + 1/4\,C_3)x^4 + (t_3 + 1/2\,C_1t_2^2 + 1/4\,C_3t_1^4 + 1/8\,C_7)x^8 + (t_4 + 1/2\,C_1t_3^2 + 1/4\,C_3t_2^4 + 1/8\,C_7t_1^8 + 1/16\,C_{15})x^{16}$$

and the formal group law $F_{BP,T}(x,y)$ at $p=2$ equals

$$x+y$$

$$-2\,t_1xy - C_1xy$$

$$+C_1^2x^2y + 4\,t_1^2x^2y + 4\,t_1C_1x^2y + C_1^2xy^2 + 4\,t_1^2xy^2 + 4\,t_1C_1xy^2$$

$$-6\,t_1C_1^2x^3y - C_1^3x^3y - 14\,C_1t_1^2x^3y - C_3x^3y - 4\,t_2x^3y - 8\,t_1^3x^3y - 20\,t_1^3x^2y^2 - 6\,t_2x^2y^2 - 3/2\,C_3x^2y^2 - 15\,t_1C_1^2x^2y^2 - 33\,C_1t_1^2x^2y^2 - 5/2\,C_1^3x^2y^2 - 6\,t_1C_1^2xy^3 - C_1^3xy^3 - 8\,t_1^3xy^3 - C_3xy^3 - 14\,C_1t_1^2xy^3 - 4\,t_2xy^3$$

$$+8\,t_1C_1^3x^4y + 4\,t_1C_3x^4y + 2\,C_1C_3x^4y + 16\,t_1t_2x^4y + 40\,C_1t_1^3x^4y + 28\,t_1^2C_1^2x^4y + 8\,C_1t_2x^4y + 16\,t_1^4x^4y + C_1^4x^4y + 166\,C_1t_1^3x^3y^2 + 119\,t_1^2C_1^2x^3y^2 + 22\,C_1t_2x^3y^2 + 9/2\,C_1^4x^3y^2 + 11/2\,C_1C_3x^3y^2 + 44\,t_1t_2x^3y^2 + 72\,t_1^4x^3y^2 + 36\,t_1C_1^3x^3y^2 + 11\,t_1C_3x^3y^2 + 11\,t_1C_3x^2y^3 + 44\,t_1t_2x^2y^3 + 166\,C_1t_1^3x^2y^3 + 22\,C_1t_2x^2y^3 + 11/2\,C_1C_3x^2y^3 + 9/2\,C_1^4x^2y^3 + 36\,t_1C_1^3x^2y^3 + 72\,t_1^4x^2y^3 + 119\,t_1^2C_1^2x^2y^3 + 8\,C_1t_2xy^4 + 4\,t_1C_3xy^4 + 16\,t_1t_2xy^4 + 40\,C_1t_1^3xy^4 + C_1^4xy^4 + 16\,t_1^4xy^4 + 8\,t_1C_1^3xy^4 + 28\,t_1^2C_1^2xy^4 + 2\,C_1C_3xy^4$$

$$-46\,t_1^2C_1^3x^5y - 104\,C_1t_1^4x^5y - 10\,t_1C_1^4x^5y - 12\,t_1^2C_3x^5y - 32\,t_1^5x^5y - 104\,t_1^3C_1^2x^5y - 48\,t_1^2t_2x^5y - 48\,t_1C_1t_2x^5y - C_1^5x^5y - 3\,C_1^2C_3x^5y - 12\,C_1^2t_2x^5y - 12\,t_1C_1C_3x^5y - 7\,C_1^5x^4y^2 - 224\,t_1^2t_2x^4y^2 - 56\,t_1^2C_3x^4y^2 - 672\,t_1^3C_1^2x^4y^2 - 14\,C_1^2C_3x^4y^2 - 224\,t_1C_1t_2x^4y^2 - 70\,t_1C_1^4x^4y^2 - 56\,t_1C_1C_3x^4y^2 - 56\,C_1^2t_2x^4y^2 - 308\,t_1^2C_1^3x^4y^2 - 672\,C_1t_1^4x^4y^2 - 224\,t_1^5x^4y^2 - 1172\,t_1^3C_1^2x^3y^3 - 543\,t_1^2C_1^3x^3y^3 - 344\,t_1^2t_2x^3y^3 - 125\,t_1C_1^4x^3y^3 - 86\,t_1^2C_3x^3y^3 - 86\,C_1^2t_2x^3y^3 - 344\,t_1C_1t_2x^3y^3 - 400\,t_1^5x^3y^3 - 1172\,C_1t_1^4x^3y^3 - 86\,t_1C_1C_3x^3y^3 - \tfrac{25}{2}\,C_1^5x^3y^3 - \tfrac{43}{2}\,C_1^2C_3x^3y^3 - 14\,C_1^2C_3x^2y^4 - 56\,C_1^2t_2x^2y^4 - 224\,t_1^5x^2y^4 - 56\,t_1^2C_3x^2y^4 - 672\,C_1t_1^4x^2y^4 - 224\,t_1^2t_2x^2y^4 - 308\,t_1^2C_1^3x^2y^4 - 56\,t_1C_1C_3x^2y^4 - 672\,t_1^3C_1^2x^2y^4 - 224\,t_1C_1t_2x^2y^4 - 7\,C_1^5x^2y^4 - 70\,t_1C_1^4x^2y^4 - 12\,t_1^2C_3xy^5 - 104\,C_1t_1^4xy^5 - 48\,t_1C_1t_2xy^5 - 46\,t_1^2C_1^3xy^5 - 48\,t_1^2t_2xy^5 - 12\,t_1C_1C_3xy^5 - C_1^5xy^5 - 3\,C_1^2C_3xy^5 - 10\,t_1C_1^4xy^5 - 12\,C_1^2t_2xy^5 - 104\,t_1^3C_1^2xy^5 - 32\,t_1^5xy^5$$

$$+128\,t_1^3t_2x^6y + 96\,t_1C_1^2t_2x^6y + 64\,t_1^6x^6y + C_1^6x^6y + 16\,t_2^2x^6y + 16\,C_1^3t_2x^6y + 8\,t_2C_3x^6y + 52\,t_1^2C_1C_3x^6y + 32\,t_1^3C_3x^6y + 340\,t_1^4C_1^2x^6y + 256\,C_1t_1^5x^6y + 12\,t_1C_1^5x^6y + 208\,t_1^3C_1^3x^6y + 4\,C_1^3C_3x^6y + 208\,t_1^2C_1t_2x^6y + C_3^2x^6y + 24\,t_1C_1^2C_3x^6y + 68\,t_1^2C_1^4x^6y + 9/2\,C_3^2x^5y^2 + 912\,t_1^3t_2x^5y^2 + 10\,C_1^6x^5y^2 + 360\,t_1^2C_1C_3x^5y^2 + 3102\,t_1^4C_1^2x^5y^2 + 72\,t_2^2x^5y^2 + 171\,t_1C_1^2C_3x^5y^2 + 36\,t_2C_3x^5y^2 + 228\,t_1^3C_3x^5y^2 + 1942\,t_1^3C_1^3x^5y^2 + 1440\,t_1^2C_1t_2x^5y^2 + 114\,C_1^3t_2x^5y^2 + 2376\,C_1t_1^5x^5y^2 + 120\,t_1C_1^5x^5y^2 + 657\,t_1^2C_1^4x^5y^2 + \tfrac{57}{2}\,C_1^3C_3x^5y^2 + 640\,t_1^6x^5y^2 + 684\,t_1C_1^2t_2x^5y^2 + 1760\,t_1^6x^4y^3 + 17/2\,C_3^2x^4y^3 + 1780\,t_1^2C_1^4x^4y^3 + 68\,t_2C_3x^4y^3 + 260\,C_1^3t_2x^4y^3 + 8194\,t_1^4C_1^2x^4y^3 + 5180\,t_1^3C_1^3x^4y^3 + 330\,t_1C_1^5x^4y^3 + 65\,C_1^3C_3x^4y^3 + 390\,t_1C_1^2C_3x^4y^3 + 520\,t_1^3C_3x^4y^3 + \tfrac{55}{2}\,C_1^6x^4y^3 + 2080\,t_1^3t_2x^4y^3 + 1560\,t_1C_1^2t_2x^4y^3 + 6320\,C_1t_1^5x^4y^3 + 136\,t_2^2x^4y^3 + 814\,t_1^2C_1C_3x^4y^3 + 3256\,t_1^2C_1t_2x^4y^3 + 260\,C_1^3t_2x^3y^4 + 136\,t_2^2x^3y^4 + 65\,C_1^3C_3x^3y^4 + 330\,t_1C_1^5x^3y^4 + 520\,t_1^3C_3x^3y^4 + 17/2\,C_3^2x^3y^4 + 5180\,t_1^3C_1^3x^3y^4 + 1780\,t_1^2C_1^4x^3y^4 + 3256\,t_1^2C_1t_2x^3y^4 + 8194\,t_1^4C_1^2x^3y^4 + \tfrac{55}{2}\,C_1^6x^3y^4 + 1560\,t_1C_1^2t_2x^3y^4 + 1760\,t_1^6x^3y^4 + 68\,t_2C_3x^3y^4 + 6320\,C_1t_1^5x^3y^4 + 390\,t_1C_1^2C_3x^3y^4 + 2080\,t_1^3t_2x^3y^4 + 814\,t_1^2C_1C_3x^3y^4 + 657\,t_1^2C_1^4x^2y^5 + 72\,t_2^2x^2y^5 + 640\,t_1^6x^2y^5 + 684\,t_1C_1^2t_2x^2y^5 + 2376\,C_1t_1^5x^2y^5 + 3102\,t_1^4C_1^2x^2y^5 + 120\,t_1C_1^5x^2y^5 + 1942\,t_1^3C_1^3x^2y^5 + 1440\,t_1^2C_1t_2x^2y^5 + 9/2\,C_3^2x^2y^5 + 912\,t_1^3t_2x^2y^5 + 114\,C_1^3t_2x^2y^5 + 360\,t_1^2C_1C_3x^2y^5 + 36\,t_2C_3x^2y^5 + 171\,t_1C_1^2C_3x^2y^5 + 228\,t_1^3C_3x^2y^5 + 10\,C_1^6x^2y^5 + \tfrac{57}{2}\,C_1^3C_3x^2y^5 + 24\,t_1C_1^2C_3xy^6 + 128\,t_1^3t_2xy^6 + 208\,t_1^2C_1t_2xy^6 + 52\,t_1^2C_1C_3xy^6 + 16\,C_1^3t_2xy^6 + 32\,t_1^3C_3xy^6 + 96\,t_1C_1^2t_2xy^6 + 4\,C_1^3C_3xy^6 + 8\,t_2C_3xy^6 + 12\,t_1C_1^5xy^6 + 16\,t_2^2xy^6 + 256\,C_1t_1^5xy^6 + 68\,t_1^2C_1^4xy^6 + 208\,t_1^3C_1^3xy^6 + 340\,t_1^4C_1^2xy^6 + C_3^2xy^6 + C_1^6xy^6 + 64\,t_1^6xy^6$$

$$-24\,C_1t_2C_3x^7y - 3\,C_1C_3^2x^7y - 320\,t_1^4t_2x^7y - C_7x^7y - 14\,t_1C_1^6x^7y - 184\,t_1^3C_1C_3x^7y - 160\,t_1C_1^3t_2x^7y - 40\,t_1C_1^3C_3x^7y - 6\,t_1C_3^2x^7y - 96\,t_1t_2^2x^7y - 812\,t_1^4C_1^3x^7y - 128\,t_1^7x^7y - 360\,t_1^3C_1^4x^7y - 52\,C_1t_2^2x^7y - 132\,t_1^2C_1^2C_3x^7y - 736\,t_1^3C_1t_2x^7y - 48\,t_1t_2C_3x^7y - C_1^7x^7y - 8\,t_3x^7y - 5\,C_1^4C_3x^7y - 20\,C_1^4t_2x^7y - 1016\,t_1^5C_1^2x^7y - 82\,C_3t_1^4x^7y - 528\,t_1^2C_1^2t_2x^7y - 608\,C_1t_1^6x^7y - 94\,t_1^2C_1^5x^7y - 202\,C_1^4t_2x^6y^2 - 12468\,t_1^5C_1^2x^6y^2 - 328\,t_1t_2C_3x^6y^2 - 7120\,t_1^3C_1t_2x^6y^2 - 4588\,t_1^3C_1^4x^6y^2 - \tfrac{41}{2}\,C_1C_3^2x^6y^2 - 189\,t_1C_1^6x^6y^2 - 7/2\,C_7x^6y^2 - 1235\,t_1^2C_1^5x^6y^2 - 41\,t_1C_3^2x^6y^2 - 656\,t_1t_2^2x^6y^2 - 342\,C_1t_2^2x^6y^2 - 28\,t_3x^6y^2 - 1616\,t_1C_1^3t_2x^6y^2 - 7664\,C_1t_1^6x^6y^2 - 815\,C_3t_1^4x^6y^2 - 5176\,t_1^2C_1^2t_2x^6y^2 - 10066\,t_1^4C_1^3x^6y^2 - 404\,t_1C_1^3C_3x^6y^2 - 1294\,t_1^2C_1^2C_3x^6y^2 - 1728\,t_1^7x^6y^2 - 1780\,t_1^3C_1C_3x^6y^2 - 3232\,t_1^4t_2x^6y^2 - \tfrac{27}{2}\,C_1^7x^6y^2 - 164\,C_1t_2C_3x^6y^2 - \tfrac{101}{2}\,C_1^4C_3x^6y^2 - 10400\,t_1^4t_2x^5y^3 - 37412\,t_1^4C_1^3x^5y^3 - 56\,t_3x^5y^3 - 28720\,C_1t_1^6x^5y^3 - 17300\,t_1^3C_1^4x^5y^3 - 106\,t_1C_3^2x^5y^3 - 22496\,t_1^3C_1t_2x^5y^3 - 4112\,t_1^2C_1^2C_3x^5y^3 - 1300\,t_1C_1^3C_3x^5y^3 - 424\,C_1t_2C_3x^5y^3 - 46104\,t_1^5C_1^2x^5y^3 - 6720\,t_1^7x^5y^3 - 16448\,t_1^2C_1^2t_2x^5y^3 - 2614\,C_3t_1^4x^5y^3 - 650\,C_1^4t_2x^5y^3 - 5200\,t_1C_1^3t_2x^5y^3 - 5624\,t_1^3C_1C_3x^5y^3 - 4735\,t_1^2C_1^5x^5y^3 - 1696\,t_1t_2^2x^5y^3 - 876\,C_1t_2^2x^5y^3 - 735\,t_1C_1^6x^5y^3 - 53\,C_1C_3^2x^5y^3 - 848\,t_1t_2C_3x^5y^3 - 7\,C_7x^5y^3 - \tfrac{325}{2}\,C_1^4C_3x^5y^3 - \tfrac{105}{2}\,C_1^7x^5y^3 - 7472\,t_1C_1^3t_2x^4y^4 - \tfrac{35}{4}\,C_7x^4y^4 - \tfrac{7507}{2}\,C_3t_1^4x^4y^4 - 1868\,t_1C_1^3C_3x^4y^4 - 934\,C_1^4t_2x^4y^4 - 569\,C_1t_2C_3x^4y^4 - \tfrac{4515}{4}\,t_1C_1^6x^4y^4 - 43592\,C_1t_1^6x^4y^4 - 1173\,C_1t_2^2x^4y^4 - 14944\,t_1^4t_2x^4y^4 - \tfrac{113285}{2}\,t_1^4C_1^3x^4y^4 - \tfrac{467}{2}\,C_1^4C_3x^4y^4 - 1138\,t_1t_2C_3x^4y^4 - 10320\,t_1^7x^4y^4 - 23554\,t_1^2C_1^2t_2x^4y^4 - 69693\,t_1^5C_1^2x^4y^4 - \tfrac{645}{8}\,C_1^7x^4y^4 - \tfrac{569}{8}\,C_1C_3^2x^4y^4 - 70\,t_3x^4y^4 - 32164\,t_1^3C_1t_2x^4y^4 - 8041\,t_1^3C_1C_3x^4y^4 - \tfrac{14479}{2}\,t_1^2C_1^5x^4y^4 - 2276\,t_1t_2^2x^4y^4 - 26311\,t_1^3C_1^4x^4y^4 - \tfrac{569}{4}\,t_1C_3^2x^4y^4 - \tfrac{11777}{2}\,t_1^2C_1^2C_3x^4y^4 - 7\,C_7x^3y^5 - 4735\,t_1^2C_1^5x^3y^5 - 10400\,t_1^4t_2x^3y^5 - 4112\,t_1^2C_1^2C_3x^3y^5 -$$

$$1300\,t_1{C_1}^3C_3x^3y^5-\tfrac{325}{2}\,{C_1}^4C_3x^3y^5-876\,C_1t_2^2x^3y^5-6720\,t_1^7x^3y^5-2614\,C_3t_1^4x^3y^5-5624\,t_1^3C_1C_3x^3y^5-17300\,t_1^3{C_1}^4x^3y^5-53\,C_1{C_3}^2x^3y^5-28720\,C_1t_1^6x^3y^5-5200\,t_1{C_1}^3t_2x^3y^5-37412\,t_1^4{C_1}^3x^3y^5-\tfrac{105}{2}\,{C_1}^7x^3y^5-16448\,t_1^2{C_1}^2t_2x^3y^5-56\,t_3x^3y^5-46104\,t_1^5{C_1}^2x^3y^5-106\,t_1C_3^2x^3y^5-1696\,t_1t_2^2x^3y^5-650\,{C_1}^4t_2x^3y^5-22496\,t_1^3C_1t_2x^3y^5-735\,t_1{C_1}^6x^3y^5-848\,t_1t_2C_3x^3y^5-424\,C_1t_2C_3x^3y^5-1780\,t_1^3C_1C_3x^2y^6-328\,t_1t_2C_3x^2y^6-164\,C_1t_2C_3x^2y^6-1616\,t_1C_1^3t_2x^2y^6-\tfrac{41}{2}\,C_1{C_3}^2x^2y^6-7120\,t_1^3C_1t_2x^2y^6-12468\,t_1^5{C_1}^2x^2y^6-5176\,t_1^2{C_1}^2t_2x^2y^6-342\,C_1t_2^2x^2y^6-404\,t_1C_1^3C_3x^2y^6-\tfrac{101}{2}\,{C_1}^4C_3x^2y^6-3232\,t_1^4t_2x^2y^6-189\,t_1{C_1}^6x^2y^6-1294\,t_1^2{C_1}^2C_3x^2y^6-202\,{C_1}^4t_2x^2y^6-7/2\,C_7x^2y^6-1235\,t_1^2{C_1}^5x^2y^6-\tfrac{27}{2}\,{C_1}^7x^2y^6-1728\,t_1^7x^2y^6-7664\,C_1t_1^6x^2y^6-28\,t_3x^2y^6-656\,t_1t_2^2x^2y^6-4588\,t_1^3{C_1}^4x^2y^6-10066\,t_1^4{C_1}^3x^2y^6-815\,C_3t_1^4x^2y^6-41\,t_1{C_3}^2x^2y^6-6\,t_1{C_3}^2xy^7-40\,t_1C_1^3C_3xy^7-94\,t_1^2{C_1}^5xy^7-14\,t_1{C_1}^6xy^7-{C_1}^7xy^7-1016\,t_1^5{C_1}^2xy^7-160\,t_1{C_1}^3t_2xy^7-52\,C_1t_2^2xy^7-360\,t_1^3{C_1}^4xy^7-128\,t_1^7xy^7-812\,t_1^4{C_1}^3xy^7-320\,t_1^4t_2xy^7-48\,t_1t_2C_3xy^7-24\,C_1t_2C_3xy^7-184\,t_1^3C_1C_3xy^7-3\,C_1{C_3}^2xy^7-8\,t_3xy^7-82\,C_3t_1^4xy^7-5\,{C_1}^4C_3xy^7-20\,{C_1}^4t_2xy^7-608\,C_1t_1^6xy^7-528\,t_1^2{C_1}^2t_2xy^7-736\,t_1^3C_1t_2xy^7-96\,t_1t_2^2xy^7-132\,t_1^2{C_1}^2C_3xy^7-C_7xy^7$$

$$1408\,C_1t_1^7x^8y+768\,t_1^5t_2x^8y+16\,t_1C_1^7x^8y+4\,t_1C_7x^8y+32\,t_1t_3x^8y+200\,C_3t_1^5x^8y+6\,{C_1}^2{C_3}^2x^8y+6\,{C_1}^5C_3x^8y+24\,{C_1}^5t_2x^8y+2\,C_1C_7x^8y+16\,C_1t_3x^8y+104\,{C_1}^2t_2^2x^8y+568\,t_1^3{C_1}^5x^8y+256\,t_1^8x^8y+{C_1}^8x^8y+576\,t_1^3{C_1}^2C_3x^8y+580\,t_1^4C_1C_3x^8y+2304\,t_1^4C_1t_2x^8y+192\,t_1^2t_2C_3x^8y+1056\,t_1^2{C_1}^3t_2x^8y+124\,t_1^2{C_1}^6x^8y+384\,t_1^2t_2^2x^8y+192\,t_1C_1t_2C_3x^8y+1624\,t_1^4{C_1}^4x^8y+2848\,t_1^5{C_1}^3x^8y+400\,t_1C_1t_2^2x^8y+2848\,t_1^6{C_1}^2x^8y+60\,t_1C_1^4C_3x^8y+24\,t_1C_1{C_3}^2x^8y+240\,t_1C_1^4t_2x^8y+264\,t_1^2C_1^3C_3x^8y+24\,t_1^2{C_3}^2x^8y+48\,{C_1}^2t_2C_3x^8y+2304\,t_1^3{C_1}^2t_2x^8y+9470\,t_1^3{C_1}^5x^7y^2+45336\,t_1^6{C_1}^2x^7y^2+45336\,t_1^5{C_1}^3x^7y^2+280\,t_1C_1^7x^7y^2+3744\,t_1^2t_2^2x^7y^2+23136\,C_1t_1^7x^7y^2+10432\,t_1^5t_2x^7y^2+3494\,t_1^2{C_1}^3C_3x^7y^2+468\,{C_1}^2t_2C_3x^7y^2+1872\,t_1C_1t_2C_3x^7y^2+26354\,t_1^4{C_1}^4x^7y^2+4480\,t_1^8x^7y^2+29824\,t_1^3{C_1}^2t_2x^7y^2+23\,t_1C_7x^7y^2+\tfrac{35}{2}\,{C_1}^8x^7y^2+2654\,C_3t_1^5x^7y^2+\tfrac{117}{2}\,{C_1}^2{C_3}^2x^7y^2+\tfrac{163}{2}\,{C_1}^5C_3x^7y^2+234\,t_1^2{C_3}^2x^7y^2+13976\,t_1^2{C_1}^3t_2x^7y^2+23/2\,C_1C_7x^7y^2+92\,C_1t_3x^7y^2+234\,t_1C_1{C_3}^2x^7y^2+3260\,t_1C_1^4t_2x^7y^2+3836\,t_1C_1t_2^2x^7y^2+29824\,t_1^4C_1t_2x^7y^2+815\,t_1C_1^4C_3x^7y^2+7456\,t_1^3C_1^2C_3x^7y^2+7479\,t_1^4C_1C_3x^7y^2+184\,t_1t_3x^7y^2+2123\,t_1^2C_1^6x^7y^2+1872\,t_1^2t_2C_3x^7y^2+326\,C_1^5t_2x^7y^2+982\,C_1^2t_2^2x^7y^2+204\,C_1^2C_3^2x^6y^3+14956\,t_1^2C_1^3C_3x^6y^3+504\,t_1t_3x^6y^3+59824\,t_1^2C_1^3t_2x^6y^3+13308\,t_1C_1t_2^2x^6y^3+126176\,t_1^3C_1^2t_2x^6y^3+3535\,t_1C_1^4C_3x^6y^3+11438\,C_3t_1^5x^6y^3+91\,C_1^8x^6y^3+23296\,t_1^8x^6y^3+31544\,t_1^3C_1^2C_3x^6y^3+6528\,t_1^2t_2C_3x^6y^3+3390\,C_1^2t_2^2x^6y^3+6528\,t_1C_1t_2C_3x^6y^3+1632\,C_1^2t_2C_3x^6y^3+816\,t_1C_1C_3^2x^6y^3+14140\,t_1C_1^4t_2x^6y^3+10899\,t_1^2C_1^6x^6y^3+13056\,t_1^2t_2^2x^6y^3+816\,t_1^2C_3^2x^6y^3+131016\,t_1^4C_1^4x^6y^3+\tfrac{707}{2}\,C_1^5C_3x^6y^3+1414\,C_1^5t_2x^6y^3+\tfrac{63}{2}\,C_1C_7x^6y^3+252\,C_1t_3x^6y^3+31607\,t_1^4C_1C_3x^6y^3+126176\,t_1^4C_1t_2x^6y^3+1456\,t_1C_1^7x^6y^3+63\,t_1C_7x^6y^3+222896\,t_1^6C_1^2x^6y^3+115808\,C_1t_1^7x^6y^3+222896\,t_1^5C_1^3x^6y^3+47838\,t_1^3C_1^5x^6y^3+45248\,t_1^5t_2x^6y^3+\tfrac{203}{2}\,t_1C_7x^5y^4+23440\,t_1^2C_1^6x^5y^4+695\,C_1^5C_3x^5y^4+61366\,t_1^3C_1^2C_3x^5y^4+\tfrac{203}{4}\,C_1C_7x^5y^4+23470\,t_1C_1t_2^2x^5y^4+246080\,C_1t_1^7x^5y^4+23064\,t_1^2t_2^2x^5y^4+3150\,t_1C_1^7x^5y^4+\tfrac{2883}{2}\,t_1^2C_3^2x^5y^4+812\,t_1t_3x^5y^4+22443\,C_3t_1^5x^5y^4+50400\,t_1^8x^5y^4+245464\,t_1^3C_1^2t_2x^5y^4+406\,C_1t_3x^5y^4+5969\,C_1^2t_2^2x^5y^4+6950\,t_1C_1^4C_3x^5y^4+\tfrac{2883}{8}\,C_1^2C_3^2x^5y^4+102100\,t_1^3C_1^5x^5y^4+11532\,t_1C_1t_2C_3x^5y^4+88960\,t_1^5t_2x^5y^4+469766\,t_1^5C_1^3x^5y^4+11532\,t_1^2t_2C_3x^5y^4+2780\,C_1^5t_2x^5y^4+\tfrac{122935}{2}\,t_1^4C_1C_3x^5y^4+116966\,t_1^2C_1^3t_2x^5y^4+2883\,C_1^2t_2C_3x^5y^4+\tfrac{2883}{2}\,t_1C_1C_3^2x^5y^4+\tfrac{555083}{2}\,t_1^4C_1^4x^5y^4+27800\,t_1C_1^4t_2x^5y^4+245464\,t_1^4C_1t_2x^5y^4+\tfrac{58483}{2}\,t_1^2C_1^3C_3x^5y^4+469766\,t_1^6C_1^2x^5y^4+\tfrac{1575}{8}\,C_1^8x^5y^4+3150\,t_1C_1^7x^4y^5+88960\,t_1^5t_2x^4y^5+\tfrac{1575}{8}\,C_1^8x^4y^5+245464\,t_1^3C_1^2t_2x^4y^5+6950\,t_1C_1^4C_3x^4y^5+246080\,C_1t_1^7x^4y^5+27800\,t_1C_1^4t_2x^4y^5+23470\,t_1C_1t_2^2x^4y^5+469766\,t_1^6C_1^2x^4y^5+812\,t_1t_3x^4y^5+\tfrac{2883}{2}\,t_1C_1C_3^2x^4y^5+\tfrac{203}{2}\,t_1C_7x^4y^5+406\,C_1t_3x^4y^5+5969\,C_1^2t_2^2x^4y^5+\tfrac{203}{4}\,C_1C_7x^4y^5+61366\,t_1^3C_1^2C_3x^4y^5+102100\,t_1^3C_1^5x^4y^5+11532\,t_1C_1t_2C_3x^4y^5+2780\,C_1^5t_2x^4y^5+469766\,t_1^5C_1^3x^4y^5+2883\,C_1^2t_2C_3x^4y^5+\tfrac{555083}{2}\,t_1^4C_1^4x^4y^5+$$

$$50400\,t_1^8x^4y^5+\tfrac{2883}{8}\,C_1^2C_3^2x^4y^5+23064\,t_1^2t_2^2x^4y^5+\tfrac{58483}{2}\,t_1^2C_1^3C_3x^4y^5+\tfrac{122935}{2}\,t_1^4C_1C_3x^4y^5+\tfrac{2883}{2}\,t_1^2C_3^2x^4y^5+695\,C_1^5C_3x^4y^5+245464\,t_1^4C_1t_2x^4y^5+116966\,t_1^2C_1^3t_2x^4y^5+22443\,C_3t_1^5x^4y^5+11532\,t_1^2t_2C_3x^4y^5+23440\,t_1^2C_1^6x^4y^5+23296\,t_1^8x^3y^6+59824\,t_1^2C_1^3t_2x^3y^6+3390\,C_1^2t_2^2x^3y^6+3535\,t_1C_1^4C_3x^3y^6+14140\,t_1C_1^4t_2x^3y^6+6528\,t_1^2t_2C_3x^3y^6+252\,C_1t_3x^3y^6+14956\,t_1^2C_1^3C_3x^3y^6+131016\,t_1^4C_1^4x^3y^6+91\,C_1^8x^3y^6+1456\,t_1C_1^7x^3y^6+816\,t_1^2C_3^2x^3y^6+11438\,C_3t_1^5x^3y^6+1632\,C_1^2t_2C_3x^3y^6+126176\,t_1^4C_1t_2x^3y^6+126176\,t_1^3C_1^2t_2x^3y^6+13056\,t_1^2t_2^2x^3y^6+504\,t_1t_3x^3y^6+222896\,t_1^5C_1^3x^3y^6+31607\,t_1^4C_1C_3x^3y^6+816\,t_1C_1C_3^2x^3y^6+6528\,t_1C_1t_2C_3x^3y^6+204\,C_1^2C_3^2x^3y^6+45248\,t_1^5t_2x^3y^6+10899\,t_1^2C_1^6x^3y^6+222896\,t_1^6C_1^2x^3y^6+13308\,t_1C_1t_2^2x^3y^6+31544\,t_1^3C_1^2C_3x^3y^6+47838\,t_1^3C_1^5x^3y^6+1414\,C_1^5t_2x^3y^6+63\,t_1C_7x^3y^6+\tfrac{63}{2}\,C_1C_7x^3y^6+115808\,C_1t_1^7x^3y^6+\tfrac{707}{2}\,C_1^5C_3x^3y^6+1872\,t_1^2t_2C_3x^2y^7+45336\,t_1^5C_1^3x^2y^7+26354\,t_1^4C_1^4x^2y^7+29824\,t_1^4C_1t_2x^2y^7+45336\,t_1^6C_1^2x^2y^7+13976\,t_1^2C_1^3t_2x^2y^7+7456\,t_1^3C_1^2C_3x^2y^7+9470\,t_1^3C_1^5x^2y^7+815\,t_1C_1^4C_3x^2y^7+234\,t_1^2C_3^2x^2y^7+\tfrac{35}{2}\,C_1^8x^2y^7+2654\,C_3t_1^5x^2y^7+3744\,t_1^2t_2^2x^2y^7+3494\,t_1^2C_1^3C_3x^2y^7+184\,t_1t_3x^2y^7+\tfrac{117}{2}\,C_1^2C_3^2x^2y^7+23/2\,C_1C_7x^2y^7+234\,t_1C_1C_3^2x^2y^7+23136\,C_1t_1^7x^2y^7+280\,t_1C_1^7x^2y^7+23\,t_1C_7x^2y^7+\tfrac{163}{2}\,C_1^5C_3x^2y^7+326\,C_1^5t_2x^2y^7+92\,C_1t_3x^2y^7+3836\,t_1C_1t_2^2x^2y^7+4480\,t_1^8x^2y^7+29824\,t_1^3C_1^2t_2x^2y^7+1872\,t_1C_1t_2C_3x^2y^7+10432\,t_1^5t_2x^2y^7+2123\,t_1^2C_1^6x^2y^7+468\,C_1^2t_2C_3x^2y^7+3260\,t_1C_1^4t_2x^2y^7+7479\,t_1^4C_1C_3x^2y^7+982\,C_1^2t_2^2x^2y^7+32\,t_1t_3xy^8+264\,t_1^2C_1^3C_3xy^8+256\,t_1^8xy^8+6\,C_1^5C_3xy^8+2848\,t_1^6C_1^2xy^8+4\,t_1C_7xy^8+200\,C_3t_1^5xy^8+6\,C_1^2C_3^2xy^8+1056\,t_1^2C_1^3t_2xy^8+240\,t_1C_1^4t_2xy^8+576\,t_1^3C_1^2C_3xy^8+{C_1}^8xy^8+2\,C_1C_7xy^8+60\,t_1C_1^4C_3xy^8+48\,C_1^2t_2C_3xy^8+768\,t_1^5t_2xy^8+1408\,C_1t_1^7xy^8+192\,t_1^2t_2C_3xy^8+124\,t_1^2C_1^6xy^8+192\,t_1C_1t_2C_3xy^8+2304\,t_1^4C_1t_2xy^8+24\,t_1C_1C_3^2xy^8+568\,t_1^3C_1^5xy^8+16\,t_1C_1^7xy^8+24\,C_1^5t_2xy^8+104\,C_1^2t_2^2xy^8+580\,t_1^4C_1C_3xy^8+2848\,t_1^5C_1^3xy^8+16\,C_1t_3xy^8+24\,t_1^2C_3^2xy^8+2304\,t_1^3C_1^2t_2xy^8+400\,t_1C_1t_2^2xy^8+1624\,t_1^4C_1^4xy^8+384\,t_1^2t_2^2xy^8$$

Some values of the n-series for $F_{BP,T}(x,y)$ at $p=2$ are:

Omitted.

7.6. $F_{V,T}(x,y)$ **at** $p=2$ **over** $\mathbb{Z}[V;T]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> # We write lambda_i for what Hazewinkel calls a_i(V),
  # then we will write a_i for what Hazewinkel calls a_i(V,T).
> lambda[0]:=1:
> L:=(m,n)->{ seq(p*lambda[j]=add(lambda[i]*V[j-i]^(p^i),
  i=0..(j-1)),j=m..n) };
> # the inputs m and n are the lower and upper bounds for
  # the subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> assign(expand(%)); # the assign command will do
  # lambda[i]:=... for each element in the set
> a[0]:=1: T[0]:=1:
> for n from 1 to 6 do
  a[n]:=add(lambda[i]*T[n-i]^(p^i),i=0..n); od;
> p:=2:
> m:=9: # the truncation degree for x
> q:=4: # the number of lambda[i]'s in the logarithm,
  # so that we know the logarithm to degree x^(p^q)
> f_VT:=x->sum(a[i]*x^(p^i),i=0..q);
> f_VT(x);
> latex(%);
> log_VT:=powpoly(f_VT(x),x);
> tpsform(log_VT,x);
> exp_VT:=reversion(log_VT);
> simplify(tpsform(exp_VT,x,m+1));
> latex(%);
> e_VT:=x->convert(simplify(tpsform(exp_VT,x,m+1)),polynom);
> F_VT:=(x,y)->sort( simplify( mtaylor( subs(z=f_VT(x)+f_VT(y),
  e_VT(z)), [x,y], m+1 ) ) , [x,y]);
> F_VT(x,y);
> latex(%);
```

The results of these computations are that the logarithm $\log_{V,T}(x)$ at $p=2$ equals

$$x + (T_1 + 1/2\,V_1)\,x^2 + \left(T_2 + 1/2\,V_1T_1{}^2 + 1/2\,V_2 + 1/4\,V_1{}^3\right)x^4$$

$$+\left(T_3 + 1/2\,V_1T_2{}^2 + \left(1/2\,V_2 + 1/4\,V_1{}^3\right)T_1{}^4 + 1/2\,V_3 + 1/4\,V_1V_2{}^2 + 1/4\,V_1{}^4V_2 + 1/8\,V_1{}^7\right)x^8$$

and the formal group law $F_{V,T}(x,y)$ at $p=2$ equals

$$x+y$$

$$-V_1xy - 2\,T_1xy$$

$$+4\,T_1V_1x^2y + V_1{}^2x^2y + 4\,T_1{}^2x^2y + 4\,T_1{}^2xy^2 + V_1{}^2xy^2 + 4\,T_1V_1xy^2$$

$$-6\,T_1V_1{}^2x^3y - 4\,T_2x^3y - 2\,V_1{}^3x^3y - 8\,T_1{}^3x^3y - 2\,V_2x^3y - 14\,V_1T_1{}^2x^3y - 20\,T_1{}^3x^2y^2 - 15\,T_1V_1{}^2x^2y^2 - 6\,T_2x^2y^2 - 3\,V_2x^2y^2 - 4\,V_1{}^3x^2y^2 - 33\,V_1T_1{}^2x^2y^2 - 2\,V_2xy^3 - 6\,T_1V_1{}^2xy^3 - 8\,T_1{}^3xy^3 - 14\,V_1T_1{}^2xy^3 - 4\,T_2xy^3 - 2\,V_1{}^3xy^3$$

$$+16\,T_1{}^4x^4y + 3\,V_1{}^4x^4y + 12\,T_1V_1{}^3x^4y + 40\,V_1T_1{}^3x^4y + 28\,T_1{}^2V_1{}^2x^4y + 4\,V_1V_2x^4y + 16\,T_1T_2x^4y + 8\,T_1V_2x^4y + 8\,V_1T_2x^4y + 166\,V_1T_1{}^3x^3y^2 + 22\,V_1T_2x^3y^2 + 10\,V_1{}^4x^3y^2 + 47\,T_1V_1{}^3x^3y^2 + 72\,T_1{}^4x^3y^2 + 22\,T_1V_2x^3y^2 + 119\,T_1{}^2V_1{}^2x^3y^2 + 11\,V_1V_2x^3y^2 + 44\,T_1T_2x^3y^2 + 47\,T_1V_1{}^3x^2y^3 + 22\,T_1V_2x^2y^3 + 166\,V_1T_1{}^3x^2y^3 + 10\,V_1{}^4x^2y^3 + 119\,T_1{}^2V_1{}^2x^2y^3 + 72\,T_1{}^4x^2y^3 + 44\,T_1T_2x^2y^3 + 11\,V_1V_2x^2y^3 + 22\,V_1T_2x^2y^3 + 8\,V_1T_2xy^4 + 28\,T_1{}^2V_1{}^2xy^4 + 40\,V_1T_1{}^3xy^4 + 3\,V_1{}^4xy^4 + 8\,T_1V_2xy^4 + 12\,T_1V_1{}^3xy^4 + 16\,T_1T_2xy^4 + 4\,V_1V_2xy^4 + 16\,T_1{}^4xy^4$$

$$-58\,T_1{}^2V_1{}^3x^5y - 22\,T_1V_1{}^4x^5y - 24\,T_1{}^2V_2x^5y - 48\,T_1{}^2T_2x^5y - 48\,T_1V_1T_2x^5y - 24\,T_1V_1V_2x^5y - 104\,V_1T_1{}^4x^5y - 12\,V_1{}^2T_2x^5y - 32\,T_1{}^5x^5y - 4\,V_1{}^5x^5y - 104\,T_1{}^3V_1{}^2x^5y - 6\,V_1{}^2V_2x^5y - 28\,V_1{}^2V_2x^4y^2 - 56\,V_1{}^2T_2x^4y^2 - 224\,T_1{}^5x^4y^2 - 672\,V_1T_1{}^4x^4y^2 - 364\,T_1{}^2V_1{}^3x^4y^2 - 224\,T_1{}^2T_2x^4y^2 - 112\,T_1V_1V_2x^4y^2 - 21\,V_1{}^5x^4y^2 - 112\,T_1{}^2V_2x^4y^2 - 672\,T_1{}^3V_1{}^2x^4y^2 - 224\,T_1V_1T_2x^4y^2 - 126\,T_1V_1{}^4x^4y^2 - 172\,T_1V_1V_2x^3y^3 - 43\,V_1{}^2V_2x^3y^3 - 34\,V_1{}^5x^3y^3 - 211\,T_1V_1{}^4x^3y^3 - 1172\,T_1{}^3V_1{}^2x^3y^3 - 400\,T_1{}^5x^3y^3 - 344\,T_1{}^2T_2x^3y^3 - 344\,T_1V_1T_2x^3y^3 - 1172\,V_1T_1{}^4x^3y^3 - 86\,V_1{}^2T_2x^3y^3 - 172\,T_1{}^2V_2x^3y^3 - 629\,T_1{}^2V_1{}^3x^3y^3 - 112\,T_1V_1V_2x^2y^4 - 224\,T_1{}^5x^2y^4 - 21\,V_1{}^5x^2y^4 - 364\,T_1{}^2V_1{}^3x^2y^4 - 112\,T_1{}^2V_2x^2y^4 - 672\,V_1T_1{}^4x^2y^4 - 28\,V_1{}^2V_2x^2y^4 - 224\,T_1V_1T_2x^2y^4 - 672\,T_1{}^3V_1{}^2x^2y^4 - 224\,T_1{}^2T_2x^2y^4 - 126\,T_1V_1{}^4x^2y^4 - 56\,V_1{}^2T_2x^2y^4 - 104\,T_1{}^3V_1{}^2xy^5 - 32\,T_1{}^5xy^5 - 24\,T_1{}^2V_2xy^5 - 104\,V_1T_1{}^4xy^5 - 24\,T_1V_1V_2xy^5 - 4\,V_1{}^5xy^5 - 12\,V_1{}^2T_2xy^5 - 48\,T_1{}^2T_2xy^5 - 22\,T_1V_1{}^4xy^5 - 6\,V_1{}^2V_2xy^5 - 58\,T_1{}^2V_1{}^3xy^5 - 48\,T_1V_1T_2xy^5$$

$$+120\,T_1{}^2V_1{}^4x^6y + 240\,T_1{}^3V_1{}^3x^6y + 4\,V_2{}^2x^6y + 48\,T_1V_1{}^2V_2x^6y + 340\,T_1{}^4V_1{}^2x^6y + 36\,T_1V_1{}^5x^6y + 256\,V_1T_1{}^5x^6y + 128\,T_1{}^3T_2x^6y + 208\,T_1{}^2V_1T_2x^6y + 64\,T_1{}^3V_2x^6y + 24\,V_1{}^3T_2x^6y + 6\,V_1{}^6x^6y + 12\,V_1{}^3V_2x^6y + 96\,T_1V_1{}^2T_2x^6y + 64\,T_1{}^6x^6y + 104\,T_1{}^2V_1V_2x^6y + 16\,T_2V_2x^6y + 16\,T_2{}^2x^6y + 72\,T_2V_2x^5y^2 + 3102\,T_1{}^4V_1{}^2x^5y^2 + 456\,T_1{}^3V_2x^5y^2 + 912\,T_1{}^3T_2x^5y^2 + 150\,V_1{}^3T_2x^5y^2 + 684\,T_1V_1{}^2T_2x^5y^2 + 720\,T_1{}^2V_1V_2x^5y^2 + 2170\,T_1{}^3V_1{}^3x^5y^2 + 43\,V_1{}^6x^5y^2 + 75\,V_1{}^3V_2x^5y^2 + 1440\,T_1{}^2V_1T_2x^5y^2 + 1017\,T_1{}^2V_1{}^4x^5y^2 + 18\,V_2{}^2x^5y^2 + 291\,T_1V_1{}^5x^5y^2 + 640\,T_1{}^6x^5y^2 + 72\,T_2{}^2x^5y^2 + 342\,T_1V_1{}^2V_2x^5y^2 + 2376\,V_1T_1{}^5x^5y^2 + 136\,T_2{}^2x^4y^3 + 1760\,T_1{}^6x^4y^3 + 101\,V_1{}^6x^4y^3 + 164\,V_1{}^3V_2x^4y^3 + 5700\,T_1{}^3V_1{}^3x^4y^3 + 34\,V_2{}^2x^4y^3 + 6320\,V_1T_1{}^5x^4y^3 + 1040\,T_1{}^3V_2x^4y^3 + 328\,V_1{}^3T_2x^4y^3 + 720\,T_1V_1{}^5x^4y^3 + 136\,T_2V_2x^4y^3 + 780\,T_1V_1{}^2V_2x^4y^3 + 3256\,T_1{}^2V_1T_2x^4y^3 + 8194\,T_1{}^4V_1{}^2x^4y^3 + 2594\,T_1{}^2V_1{}^4x^4y^3 + 1628\,T_1{}^2V_1V_2x^4y^3 + 2080\,T_1{}^3T_2x^4y^3 + 1560\,T_1V_1{}^2T_2x^4y^3 + 1628\,T_1{}^2V_1V_2x^3y^4 + 164\,V_1{}^3V_2x^3y^4 + 5700\,T_1{}^3V_1{}^3x^3y^4 + 1560\,T_1V_1{}^2T_2x^3y^4 + 136\,T_2V_2x^3y^4 + 328\,V_1{}^3T_2x^3y^4 + 1040\,T_1{}^3V_2x^3y^4 + 8194\,T_1{}^4V_1{}^2x^3y^4 + 780\,T_1V_1{}^2V_2x^3y^4 + 2080\,T_1{}^3T_2x^3y^4 + 1760\,T_1{}^6x^3y^4 + 3256\,T_1{}^2V_1T_2x^3y^4 + 2594\,T_1{}^2V_1{}^4x^3y^4 + 6320\,V_1T_1{}^5x^3y^4 + 34\,V_2{}^2x^3y^4 + 136\,T_2{}^2x^3y^4 + 720\,T_1V_1{}^5x^3y^4 + 101\,V_1{}^6x^3y^4 + 150\,V_1{}^3T_2x^2y^5 + 2376\,V_1T_1{}^5x^2y^5 + 1440\,T_1{}^2V_1T_2x^2y^5 + 291\,T_1V_1{}^5x^2y^5 + 72\,T_2V_2x^2y^5 + 640\,T_1{}^6x^2y^5 + 18\,V_2{}^2x^2y^5 + 342\,T_1V_1{}^2V_2x^2y^5 + 2170\,T_1{}^3V_1{}^3x^2y^5 + 456\,T_1{}^3V_2x^2y^5 + 43\,V_1{}^6x^2y^5 + 1017\,T_1{}^2V_1{}^4x^2y^5 + 720\,T_1{}^2V_1V_2x^2y^5 + 684\,T_1V_1{}^2T_2x^2y^5 + 3102\,T_1{}^4V_1{}^2x^2y^5 + 72\,T_2{}^2x^2y^5 + 912\,T_1{}^3T_2x^2y^5 + 75\,V_1{}^3V_2x^2y^5 + 12\,V_1{}^3V_2xy^6 + 6\,V_1{}^6xy^6 + 36\,T_1V_1{}^5xy^6 + 16\,T_2{}^2xy^6 + 4\,V_2{}^2xy^6 + 128\,T_1{}^3T_2xy^6 + 16\,T_2V_2xy^6 + 120\,T_1{}^2V_1{}^4xy^6 + 24\,V_1{}^3T_2xy^6 + 64\,T_1{}^3V_2xy^6 + 104\,T_1{}^2V_1V_2xy^6 + 48\,T_1V_1{}^2V_2xy^6 + 240\,T_1{}^3V_1{}^3xy^6 + 96\,T_1V_1{}^2T_2xy^6 + 64\,T_1{}^6xy^6 + 208\,T_1{}^2V_1T_2xy^6 + 340\,T_1{}^4V_1{}^2xy^6 + 256\,V_1T_1{}^5xy^6$$

$$-4\,V_3x^7y - 164\,T_1{}^4V_2x^7y - 44\,V_1{}^4T_2x^7y - 1016\,T_1{}^5V_1{}^2x^7y - 544\,T_1{}^3V_1{}^4x^7y - 320\,T_1{}^4T_2x^7y - 528\,T_1{}^2V_1{}^2T_2x^7y - 96\,T_1T_2{}^2x^7y - 128\,T_1{}^7x^7y - 894\,T_1{}^4V_1{}^3x^7y - 8\,T_3x^7y - 104\,T_1V_1{}^3V_2x^7y - 60\,T_1V_1{}^6x^7y - 96\,T_1T_2V_2x^7y - 736\,T_1{}^3V_1T_2x^7y - 226\,T_1{}^2V_1{}^5x^7y - 14\,V_1V_2{}^2x^7y - 10\,V_1{}^7x^7y - 608\,V_1T_1{}^6x^7y - 208\,T_1V_1{}^3T_2x^7y - 264\,T_1{}^2V_1{}^2V_2x^7y - 24\,T_1V_2{}^2x^7y - 48\,V_1T_2V_2x^7y - 24\,V_1{}^4V_2x^7y - 52\,V_1T_2{}^2x^7y - 368\,T_1{}^3V_1V_2x^7y - 366\,V_1{}^4T_2x^6y^2 - 1728\,T_1{}^7x^6y^2 - 28\,T_3x^6y^2 - 3232\,T_1{}^4T_2x^6y^2 - 1630\,T_1{}^4V_2x^6y^2 - 634\,T_1V_1{}^6x^6y^2 - 190\,V_1{}^4V_2x^6y^2 - 88\,V_1{}^7x^6y^2 - 5176\,T_1{}^2V_1{}^2T_2x^6y^2 -$$

$3560\,T_1^3V_1V_2x^6y^2 - 7664\,V_1T_1^6x^6y^2 - 12468\,T_1^5V_1^2x^6y^2 - 10881\,T_1^4V_1^3x^6y^2 - 14\,V_3x^6y^2 -$
$164\,T_1V_2^2x^6y^2 - 656\,T_1T_2V_2x^6y^2 - 656\,T_1T_2^2x^6y^2 - 2529\,T_1^2V_1^5x^6y^2 - 342\,V_1T_2^2x^6y^2 -$
$6368\,T_1^3V_1^4x^6y^2 - 1944\,T_1V_1^3T_2x^6y^2 - 972\,T_1V_1^3V_2x^6y^2 - 2588\,T_1^2V_1^2V_2x^6y^2 - 89\,V_1V_2^2x^6y^2 -$
$328\,V_1T_2V_2x^6y^2 - 7120\,T_1^3V_1T_2x^6y^2 - 551\,V_1^4V_2x^5y^3 - 1696\,T_1T_2^2x^5y^3 - 28\,V_3x^5y^3 -$
$5228\,T_1^4V_2x^5y^3 - 22924\,T_1^3V_1^4x^5y^3 - 3024\,T_1V_1^3V_2x^5y^3 - 424\,T_1V_2^2x^5y^3 - 16448\,T_1^2V_1^2T_2x^5y^3 -$
$2141\,T_1V_1^6x^5y^3 - 876\,V_1T_2^2x^5y^3 - 226\,V_1V_2^2x^5y^3 - 1074\,V_1^4T_2x^5y^3 - 56\,T_3x^5y^3 -$
$848\,V_1T_2V_2x^5y^3 - 8224\,T_1^2V_1^2V_2x^5y^3 - 46104\,T_1^5V_1^2x^5y^3 - 28720\,V_1T_1^6x^5y^3 - 6720\,T_1^7x^5y^3 -$
$22496\,T_1^3V_1T_2x^5y^3 - 1696\,T_1T_2V_2x^5y^3 - 11248\,T_1^3V_1V_2x^5y^3 - 275\,V_1^7x^5y^3 - 10400\,T_1^4T_2x^5y^3 -$
$6048\,T_1V_1^3T_2x^5y^3 - 8847\,T_1^2V_1^5x^5y^3 - 40026\,T_1^4V_1^3x^5y^3 - 32164\,T_1^3V_1T_2x^4y^4 - 10320\,T_1^7x^4y^4 -$
$11777\,T_1^2V_1^2V_2x^4y^4 - 34352\,T_1^3V_1^4x^4y^4 - 569\,T_1V_2^2x^4y^4 - 2276\,T_1T_2V_2x^4y^4 - 2276\,T_1T_2^2x^4y^4 -$
$70\,T_3x^4y^4 - 1138\,V_1T_2V_2x^4y^4 - 35\,V_3x^4y^4 - 60396\,T_1^4V_1^3x^4y^4 - 43592\,V_1T_1^6x^4y^4 -$
$69693\,T_1^5V_1^2x^4y^4 - 16082\,T_1^3V_1V_2x^4y^4 - 769\,V_1^4V_2x^4y^4 - 4305\,T_1V_1^3V_2x^4y^4 - 13128\,T_1^2V_1^5x^4y^4 -$
$302\,V_1V_2^2x^4y^4 - 7507\,T_1^4V_2x^4y^4 - 14944\,T_1^4T_2x^4y^4 - 1173\,V_1T_2^2x^4y^4 - 1503\,V_1^4T_2x^4y^4 -$
$394\,V_1^7x^4y^4 - 23554\,T_1^2V_1^2T_2x^4y^4 - 3139\,T_1V_1^6x^4y^4 - 8610\,T_1V_1^3T_2x^4y^4 - 2141\,T_1V_1^6x^3y^5 -$
$226\,V_1V_2^2x^3y^5 - 28\,V_3x^3y^5 - 22924\,T_1^3V_1^4x^3y^5 - 16448\,T_1^2V_1^2T_2x^3y^5 - 6048\,T_1V_1^3T_2x^3y^5 -$
$551\,V_1^4V_2x^3y^5 - 8847\,T_1^2V_1^5x^3y^5 - 424\,T_1V_2^2x^3y^5 - 22496\,T_1^3V_1T_2x^3y^5 - 10400\,T_1^4T_2x^3y^5 -$
$3024\,T_1V_1^3V_2x^3y^5 - 56\,T_3x^3y^5 - 8224\,T_1^2V_1^2V_2x^3y^5 - 11248\,T_1^3V_1V_2x^3y^5 - 876\,V_1T_2^2x^3y^5 -$
$1696\,T_1T_2^2x^3y^5 - 6720\,T_1^7x^3y^5 - 275\,V_1^7x^3y^5 - 5228\,T_1^4V_2x^3y^5 - 1074\,V_1^4T_2x^3y^5 -$
$848\,V_1T_2V_2x^3y^5 - 46104\,T_1^5V_1^2x^3y^5 - 40026\,T_1^4V_1^3x^3y^5 - 28720\,V_1T_1^6x^3y^5 - 1696\,T_1T_2V_2x^3y^5 -$
$972\,T_1V_1^3V_2x^2y^6 - 2588\,T_1^2V_1^2V_2x^2y^6 - 5176\,T_1^2V_1^2T_2x^2y^6 - 328\,V_1T_2V_2x^2y^6 - 6368\,T_1^3V_1^4x^2y^6 -$
$7120\,T_1^3V_1T_2x^2y^6 - 634\,T_1V_1^6x^2y^6 - 656\,T_1T_2^2x^2y^6 - 190\,V_1^4V_2x^2y^6 - 28\,T_3x^2y^6 - 89\,V_1V_2^2x^2y^6 -$
$1630\,T_1^4V_2x^2y^6 - 656\,T_1T_2V_2x^2y^6 - 2529\,T_1^2V_1^5x^2y^6 - 366\,V_1^4T_2x^2y^6 - 10881\,T_1^4V_1^3x^2y^6 -$
$1728\,T_1^7x^2y^6 - 88\,V_1^7x^2y^6 - 342\,V_1T_2^2x^2y^6 - 14\,V_3x^2y^6 - 3560\,T_1^3V_1V_2x^2y^6 - 1944\,T_1V_1^3T_2x^2y^6 -$
$164\,T_1V_2^2x^2y^6 - 7664\,V_1T_1^6x^2y^6 - 3232\,T_1^4T_2x^2y^6 - 12468\,T_1^5V_1^2x^2y^6 - 264\,T_1^2V_1^2V_2xy^7 -$
$24\,T_1V_2^2xy^7 - 104\,T_1V_1^3V_2xy^7 - 14\,V_1V_2^2xy^7 - 208\,T_1V_1^3T_2xy^7 - 528\,T_1^2V_1^2T_2xy^7 - 164\,T_1^4V_2xy^7 -$
$52\,V_1T_2^2xy^7 - 48\,V_1T_2V_2xy^7 - 4\,V_3xy^7 - 24\,V_1^4V_2xy^7 - 10\,V_1^7xy^7 - 128\,T_1^7xy^7 - 368\,T_1^3V_1V_2xy^7 -$
$226\,T_1^2V_1^5xy^7 - 96\,T_1T_2^2xy^7 - 544\,T_1^3V_1^4xy^7 - 320\,T_1^4T_2xy^7 - 736\,T_1^3V_1T_2xy^7 - 60\,T_1V_1^6xy^7 -$
$608\,V_1T_1^6xy^7 - 8\,T_3xy^7 - 1016\,T_1^5V_1^2xy^7 - 44\,V_1^4T_2xy^7 - 96\,T_1T_2V_2xy^7 - 894\,T_1^4V_1^3xy^7$

$1144\,T_1^3V_1^5x^8y + 1408\,V_1T_1^7x^8y + 2848\,T_1^6V_1^2x^8y + 3048\,T_1^5V_1^3x^8y + 768\,T_1^5T_2x^8y +$
$400\,T_1^5V_2x^8y + 412\,T_1^2V_1^6x^8y + 16\,V_1T_3x^8y + 104\,V_1^2T_2^2x^8y + 28\,V_1^2V_2^2x^8y + 40\,V_1^5V_2x^8y +$
$2204\,T_1^4V_1^4x^8y + 32\,T_1T_3x^8y + 1160\,T_1^4V_1V_2x^8y + 384\,T_1^2T_2V_2x^8y + 1152\,T_1^3V_1^2V_2x^8y +$
$624\,T_1^2V_1^3V_2x^8y + 1248\,T_1^2V_1^3T_2x^8y + 16\,T_1V_3x^8y + 384\,T_1^2T_2^2x^8y + 8\,V_1V_3x^8y + 72\,V_1^5T_2x^8y +$
$104\,T_1V_1^7x^8y + 2304\,T_1^4V_1T_2x^8y + 104\,T_1V_1V_2^2x^8y + 224\,T_1V_1^4V_2x^8y + 2304\,T_1^3V_1^2T_2x^8y +$
$96\,T_1^2V_2^2x^8y + 384\,T_1V_1T_2V_2x^8y + 256\,T_1^8x^8y + 15\,V_1^8x^8y + 96\,V_1^2T_2V_2x^8y + 400\,T_1V_1T_2^2x^8y +$
$432\,T_1V_1^4T_2x^8y + 23136\,V_1T_1^7x^7y^2 + 5308\,T_1^5V_2x^7y^2 + 420\,V_1^5V_2x^7y^2 + 1352\,T_1V_1^7x^7y^2 +$
$47990\,T_1^5V_1^3x^7y^2 + 10432\,T_1^5T_2x^7y^2 + 16926\,T_1^3V_1^5x^7y^2 + 2612\,T_1V_1^4V_2x^7y^2 +$
$45336\,T_1^6V_1^2x^7y^2 + 169\,V_1^8x^7y^2 + 14912\,T_1^3V_1^2V_2x^7y^2 + 7924\,T_1^2V_1^3V_2x^7y^2 + 5851\,T_1^2V_1^6x^7y^2 +$
$3744\,T_1^2T_2V_2x^7y^2 + 3744\,T_1^2T_2^2x^7y^2 + 257\,V_1^2V_2^2x^7y^2 + 46\,V_1V_3x^7y^2 + 92\,T_1V_3x^7y^2 +$
$936\,T_1^2V_2^2x^7y^2 + 5132\,T_1V_1^4T_2x^7y^2 + 29824\,T_1^3V_1^2T_2x^7y^2 + 14958\,T_1^4V_1V_2x^7y^2 + 92\,V_1T_3x^7y^2 +$
$982\,V_1^2T_2^2x^7y^2 + 3836\,T_1V_1T_2^2x^7y^2 + 15848\,T_1^2V_1^3T_2x^7y^2 + 4480\,T_1^8x^7y^2 + 184\,T_1T_3x^7y^2 +$
$794\,V_1^5T_2x^7y^2 + 29824\,T_1^4V_1T_2x^7y^2 + 3744\,T_1V_1T_2V_2x^7y^2 + 936\,V_1^2T_2V_2x^7y^2 + 982\,T_1V_1V_2^2x^7y^2 +$
$33833\,T_1^4V_1^4x^7y^2 + 33176\,T_1^2V_1^3V_2x^6y^3 + 3264\,V_1^2T_2V_2x^6y^3 + 126176\,T_1^3V_1^2T_2x^6y^3 +$
$13056\,T_1^2T_2V_2x^6y^3 + 66352\,T_1^2V_1^3T_2x^6y^3 + 13308\,T_1V_1T_2^2x^6y^3 + 222896\,T_1^6V_1^2x^6y^3 +$
$22876\,T_1^5V_2x^6y^3 + 5870\,T_1V_1^7x^6y^3 + 63088\,T_1^3V_1^2V_2x^6y^3 + 45248\,T_1^5T_2x^6y^3 + 126\,V_1V_3x^6y^3 +$
$63214\,T_1^4V_1V_2x^6y^3 + 23296\,T_1^8x^6y^3 + 680\,V_1^8x^6y^3 + 10460\,T_1V_1^4V_2x^6y^3 + 3390\,T_1V_1V_2^2x^6y^3 +$

$26671\,T_1^2V_1^6x^6y^3 + 13056\,T_1V_1T_2V_2x^6y^3 + 234334\,T_1^5V_1^3x^6y^3 + 79382\,T_1^3V_1^5x^6y^3 +$
$3046\,V_1^5T_2x^6y^3 + 1586\,V_1^5V_2x^6y^3 + 126176\,T_1^4V_1T_2x^6y^3 + 252\,T_1V_3x^6y^3 + 504\,T_1T_3x^6y^3 +$
$879\,V_1^2V_2^2x^6y^3 + 115808\,V_1T_1^7x^6y^3 + 13056\,T_1^2T_2^2x^6y^3 + 3390\,V_1^2T_2^2x^6y^3 + 20668\,T_1V_1^4T_2x^6y^3 +$
$162623\,T_1^4V_1^4x^6y^3 + 252\,V_1T_3x^6y^3 + 3264\,T_1^2V_2^2x^6y^3 + 122732\,T_1^3V_1^2V_2x^5y^4 + 163466\,T_1^3V_1^5x^5y^4 +$
$5766\,V_1^2T_2V_2x^5y^4 + 245464\,T_1^4V_1T_2x^5y^4 + 128498\,T_1^2V_1^3T_2x^5y^4 + 23064\,T_1^2T_2V_2x^5y^4 +$
$122935\,T_1^4V_1V_2x^5y^4 + 23064\,T_1V_1T_2V_2x^5y^4 + 1303\,V_1^8x^5y^4 + 5766\,T_1^2V_2^2x^5y^4 + 44886\,T_1^5V_2x^5y^4 +$
$50400\,T_1^8x^5y^4 + 19869\,T_1V_1^4V_2x^5y^4 + 245464\,T_1^3V_1^2T_2x^5y^4 + 11643\,T_1V_1^7x^5y^4 +$
$64249\,T_1^2V_1^3V_2x^5y^4 + 812\,T_1T_3x^5y^4 + 406\,V_1T_3x^5y^4 + 203\,V_1V_3x^5y^4 + 2933\,V_1^5V_2x^5y^4 +$
$339009\,T_1^4V_1^4x^5y^4 + 5663\,V_1^5T_2x^5y^4 + 469766\,T_1^6V_1^2x^5y^4 + 88960\,T_1^5T_2x^5y^4 + 246080\,V_1T_1^7x^5y^4 +$
$23470\,T_1V_1T_2^2x^5y^4 + 54123\,T_1^2V_1^6x^5y^4 + 39332\,T_1V_1^4T_2x^5y^4 + 406\,T_1V_3x^5y^4 + 5969\,T_1V_1V_2^2x^5y^4 +$
$5969\,V_1^2T_2^2x^5y^4 + 492209\,T_1^5V_1^3x^5y^4 + 23064\,T_1^2T_2^2x^5y^4 + 1543\,V_1^2V_2^2x^5y^4 + 44886\,T_1^5V_2x^4y^5 +$
$469766\,T_1^6V_1^2x^4y^5 + 246080\,V_1T_1^7x^4y^5 + 23064\,T_1V_1T_2V_2x^4y^5 + 163466\,T_1^3V_1^5x^4y^5 +$
$5766\,T_1^2V_2^2x^4y^5 + 88960\,T_1^5T_2x^4y^5 + 245464\,T_1^4V_1T_2x^4y^5 + 2933\,V_1^5V_2x^4y^5 + 5969\,V_1^2T_2^2x^4y^5 +$
$406\,V_1T_3x^4y^5 + 122732\,T_1^3V_1^2V_2x^4y^5 + 812\,T_1T_3x^4y^5 + 339009\,T_1^4V_1^4x^4y^5 + 50400\,T_1^8x^4y^5 +$
$492209\,T_1^5V_1^3x^4y^5 + 245464\,T_1^3V_1^2T_2x^4y^5 + 5969\,T_1V_1V_2^2x^4y^5 + 19869\,T_1V_1^4V_2x^4y^5 +$
$128498\,T_1^2V_1^3T_2x^4y^5 + 1303\,V_1^8x^4y^5 + 1543\,V_1^2V_2^2x^4y^5 + 54123\,T_1^2V_1^6x^4y^5 + 11643\,T_1V_1^7x^4y^5 +$
$23064\,T_1^2T_2V_2x^4y^5 + 23470\,T_1V_1T_2^2x^4y^5 + 5663\,V_1^5T_2x^4y^5 + 64249\,T_1^2V_1^3V_2x^4y^5 +$
$122935\,T_1^4V_1V_2x^4y^5 + 23064\,T_1^2T_2^2x^4y^5 + 203\,V_1V_3x^4y^5 + 39332\,T_1V_1^4T_2x^4y^5 + 5766\,V_1^2T_2V_2x^4y^5 +$
$406\,T_1V_3x^4y^5 + 13056\,T_1^2T_2V_2x^3y^6 + 680\,V_1^8x^3y^6 + 3046\,V_1^5T_2x^3y^6 + 79382\,T_1^3V_1^5x^3y^6 +$
$1586\,V_1^5V_2x^3y^6 + 5870\,T_1V_1^7x^3y^6 + 879\,V_1^2V_2^2x^3y^6 + 3390\,T_1V_1V_2^2x^3y^6 + 3264\,T_1^2V_2^2x^3y^6 +$
$63214\,T_1^4V_1V_2x^3y^6 + 504\,T_1T_3x^3y^6 + 126\,V_1V_3x^3y^6 + 234334\,T_1^5V_1^3x^3y^6 + 45248\,T_1^5T_2x^3y^6 +$
$115808\,V_1T_1^7x^3y^6 + 252\,V_1T_3x^3y^6 + 126176\,T_1^4V_1T_2x^3y^6 + 13056\,T_1V_1T_2V_2x^3y^6 + 3390\,V_1^2T_2^2x^3y^6 +$
$162623\,T_1^4V_1^4x^3y^6 + 63088\,T_1^3V_1^2V_2x^3y^6 + 10460\,T_1V_1^4V_2x^3y^6 + 33176\,T_1^2V_1^3V_2x^3y^6 +$
$66352\,T_1^2V_1^3T_2x^3y^6 + 22876\,T_1^5V_2x^3y^6 + 222896\,T_1^6V_1^2x^3y^6 + 126176\,T_1^3V_1^2T_2x^3y^6 +$
$23296\,T_1^8x^3y^6 + 13056\,T_1^2T_2^2x^3y^6 + 26671\,T_1^2V_1^6x^3y^6 + 20668\,T_1V_1^4T_2x^3y^6 + 13308\,T_1V_1T_2^2x^3y^6 +$
$252\,T_1V_3x^3y^6 + 3264\,V_1^2T_2V_2x^3y^6 + 33833\,T_1^4V_1^4x^2y^7 + 14958\,T_1^4V_1V_2x^2y^7 + 5132\,T_1V_1^4T_2x^2y^7 +$
$257\,V_1^2V_2^2x^2y^7 + 184\,T_1T_3x^2y^7 + 982\,V_1^2T_2^2x^2y^7 + 7924\,T_1^2V_1^3V_2x^2y^7 + 2612\,T_1V_1^4V_2x^2y^7 +$
$4480\,T_1^8x^2y^7 + 45336\,T_1^6V_1^2x^2y^7 + 5851\,T_1^2V_1^6x^2y^7 + 169\,V_1^8x^2y^7 + 3744\,T_1^2T_2^2x^2y^7 +$
$420\,V_1^5V_2x^2y^7 + 982\,T_1V_1V_2^2x^2y^7 + 3744\,T_1V_1T_2V_2x^2y^7 + 936\,T_1^2V_2^2x^2y^7 + 23136\,V_1T_1^7x^2y^7 +$
$5308\,T_1^5V_2x^2y^7 + 29824\,T_1^3V_1^2T_2x^2y^7 + 15848\,T_1^2V_1^3T_2x^2y^7 + 14912\,T_1^3V_1^2V_2x^2y^7 +$
$92\,V_1T_3x^2y^7 + 794\,V_1^5T_2x^2y^7 + 3836\,T_1V_1T_2^2x^2y^7 + 92\,T_1V_3x^2y^7 + 16926\,T_1^3V_1^5x^2y^7 +$
$10432\,T_1^5T_2x^2y^7 + 29824\,T_1^4V_1T_2x^2y^7 + 3744\,T_1^2T_2V_2x^2y^7 + 47990\,T_1^5V_1^3x^2y^7 +$
$1352\,T_1V_1^7x^2y^7 + 936\,V_1^2T_2V_2x^2y^7 + 46\,V_1V_3x^2y^7 + 2304\,T_1^4V_1T_2xy^8 + 256\,T_1^8xy^8 +$
$96\,T_1^2V_2^2xy^8 + 72\,V_1^5T_2xy^8 + 384\,T_1V_1T_2V_2xy^8 + 32\,T_1T_3xy^8 + 412\,T_1^2V_1^6xy^8 + 15\,V_1^8xy^8 +$
$40\,V_1^5V_2xy^8 + 384\,T_1^2T_2^2xy^8 + 8\,V_1V_3xy^8 + 2204\,T_1^4V_1^4xy^8 + 16\,T_1V_3xy^8 + 104\,T_1V_1V_2^2xy^8 +$
$1160\,T_1^4V_1V_2xy^8 + 2848\,T_1^6V_1^2xy^8 + 104\,T_1V_1^7xy^8 + 104\,V_1^2T_2^2xy^8 + 624\,T_1^2V_1^3V_2xy^8 +$
$400\,T_1^5V_2xy^8 + 1144\,T_1^3V_1^5xy^8 + 400\,T_1V_1T_2^2xy^8 + 96\,V_1^2T_2V_2xy^8 + 1408\,V_1T_1^7xy^8 +$
$3048\,T_1^5V_1^3xy^8 + 28\,V_1^2V_2^2xy^8 + 224\,T_1V_1^4V_2xy^8 + 432\,T_1V_1^4T_2xy^8 + 2304\,T_1^3V_1^2T_2xy^8 +$
$1248\,T_1^2V_1^3T_2xy^8 + 16\,V_1T_3xy^8 + 384\,T_1^2T_2V_2xy^8 + 1152\,T_1^3V_1^2V_2xy^8 + 768\,T_1^5T_2xy^8$

Some values of the n-series for $F_{V,T}(x,y)$ at $p = 2$ are:

$[2]_{VT}(x) = (2\,x + (-2\,T_1 - V_1)x^2 + (8\,T_1^2 + 8\,T_1V_1 + 2\,V_1^2)x^3 + (-14\,T_2 - 61\,V_1T_1^2 - 7\,V_2 - 8\,V_1^3 -$
$36\,T_1^3 - 27\,T_1V_1^2)x^4 + (26\,V_1^4 + 176\,T_1^4 + 412\,V_1T_1^3 + 30\,V_1V_2 + 60\,V_1T_2 + 60\,T_1V_2 + 120\,T_1T_2 +$
$118\,T_1V_1^3 + 294\,T_1^2V_1^2)x^5 + (-84\,V_1^5 - 888\,T_1V_1T_2 - 444\,T_1V_1V_2 - 912\,T_1^5 - 111\,V_1^2V_2 -$
$222\,V_1^2T_2 - 444\,T_1^2V_2 - 888\,T_1^2T_2 - 1473\,T_1^2V_1^3 - 2724\,T_1^3V_1^2 - 2724\,V_1T_1^4 - 507\,T_1V_1^4)x^6 +$
$(300\,V_1^6 + 9808\,T_1^2V_1T_2 + 2340\,T_1V_1^2V_2 + 4904\,T_1^2V_1V_2 + 4680\,T_1V_1^2T_2 + 448\,T_2^2 + 112\,V_2^2 +$

$4928\,{T_1}^6 + 16220\,{T_1}^3{V_1}^3 + 23272\,{T_1}^4{V_1}^2 + 17904\,V_1{T_1}^5 + 7462\,{T_1}^2{V_1}^4 + 448\,T_2V_2 + 502\,{V_1}^3V_2 + 1004\,{V_1}^3T_2 + 2094\,T_1{V_1}^5 + 3120\,{T_1}^3V_2 + 6240\,{T_1}^3T_2)x^7 + (-12505\,T_1{V_1}^3V_2 - 3586\,V_1T_2V_2 - 46434\,{T_1}^3V_1V_2 - 7172\,T_1T_2V_2 - 67858\,{T_1}^2{V_1}^2T_2 - 92868\,{T_1}^3V_1T_2 - 25010\,T_1{V_1}^3T_2 - 33929\,{T_1}^2{V_1}^2V_2 - 27472\,{T_1}^7 - 254\,T_3 - 127\,V_3 - 1140\,{V_1}^7 - 2299\,{V_1}^4V_2 - 960\,V_1{V_2}^2 - 3713\,V_1{T_2}^2 - 1793\,T_1{V_2}^2 - 7172\,T_1{T_2}^2 - 4471\,{V_1}^4T_2 - 36332\,{T_1}^2{V_1}^5 - 21551\,{T_1}^4V_2 - 42848\,{T_1}^4T_2 - 163998\,{T_1}^4{V_1}^3 - 188869\,{T_1}^5{V_1}^2 - 117576\,V_1{T_1}^6 - 94024\,{T_1}^3{V_1}^4 - 8809\,T_1{V_1}^6)x^8 + O(x^9))$

$[3]_{VT}(x) = (3\,x + (-6\,T_1 - 3\,V_1)x^2 + (36\,{T_1}^2 + 36\,T_1V_1 + 9\,{V_1}^2)x^3 + (-78\,T_2 - 417\,V_1{T_1}^2 - 39\,V_2 - 51\,{V_1}^3 - 252\,{T_1}^3 - 189\,T_1{V_1}^2)x^4 + (261\,{V_1}^4 + 1944\,{T_1}^4 + 4446\,V_1{T_1}^3 + 279\,V_1V_2 + 558\,V_1T_2 + 558\,T_1V_2 + 1116\,T_1T_2 + 1251\,T_1{V_1}^3 + 3195\,{T_1}^2{V_1}^2)x^5 + (-1341\,{V_1}^5 - 13464\,T_1V_1T_2 - 6732\,T_1V_1V_2 - 15984\,{T_1}^5 - 1683\,{V_1}^2V_2 - 3366\,{V_1}^2T_2 - 6732\,{T_1}^2V_2 - 13464\,{T_1}^2T_2 - 25029\,{T_1}^2{V_1}^3 - 46692\,{T_1}^3{V_1}^2 - 46692\,V_1{T_1}^4 - 8361\,T_1{V_1}^4)x^6 + (7452\,{V_1}^6 + 237816\,{T_1}^2V_1T_2 + 57348\,T_1{V_1}^2V_2 + 118908\,{T_1}^2V_1V_2 + 114696\,T_1{V_1}^2T_2 + 8424\,{T_2}^2 + 2106\,{V_2}^2 + 137376\,{T_1}^6 + 439020\,{T_1}^3{V_1}^3 + 631962\,{T_1}^4{V_1}^2 + 488592\,V_1{T_1}^5 + 197802\,{T_1}^2{V_1}^4 + 8424\,T_2V_2 + 11664\,{V_1}^3V_2 + 23328\,{V_1}^3T_2 + 54432\,T_1{V_1}^5 + 76464\,{T_1}^3V_2 + 152928\,{T_1}^3T_2)x^7 + (-479421\,T_1{V_1}^3V_2 - 113850\,V_1T_2V_2 - 1803834\,{T_1}^3V_1V_2 - 227700\,T_1T_2V_2 - 2648826\,{T_1}^2{V_1}^2T_2 - 3607668\,{T_1}^3V_1T_2 - 958842\,T_1{V_1}^3T_2 - 1324413\,{T_1}^2{V_1}^2V_2 - 1219536\,{T_1}^7 - 6558\,T_3 - 3279\,V_3 - 43869\,{V_1}^7 - 82914\,{V_1}^4V_2 - 30102\,V_1{V_2}^2 - 117129\,V_1{T_2}^2 - 56925\,T_1{V_2}^2 - 227700\,T_1{T_2}^2 - 162549\,{V_1}^4T_2 - 1515339\,{T_1}^2{V_1}^5 - 848271\,{T_1}^4V_2 - 1689984\,{T_1}^4T_2 - 7055556\,{T_1}^4{V_1}^3 - 8149473\,{T_1}^5{V_1}^2 - 5113368\,V_1{T_1}^6 - 3992148\,{T_1}^3{V_1}^4 - 358866\,T_1{V_1}^6)x^8 + O(x^9))$

$[4]_{VT}(x) = (4\,x + (-12\,T_1 - 6\,V_1)x^2 + (96\,{T_1}^2 + 96\,T_1V_1 + 24\,{V_1}^2)x^3 + (-252\,T_2 - 1494\,V_1{T_1}^2 - 126\,V_2 - 177\,{V_1}^3 - 912\,{T_1}^3 - 684\,T_1{V_1}^2)x^4 + (1236\,{V_1}^4 + 9600\,{T_1}^4 + 21744\,V_1{T_1}^3 + 1272\,V_1V_2 + 2544\,V_1T_2 + 2544\,T_1V_2 + 5088\,T_1T_2 + 6072\,T_1{V_1}^3 + 15672\,{T_1}^2{V_1}^2)x^5 + (-8694\,{V_1}^5 - 85152\,T_1V_1T_2 - 42576\,T_1V_1V_2 - 107904\,{T_1}^5 - 10644\,{V_1}^2V_2 - 21288\,{V_1}^2T_2 - 42576\,{T_1}^2V_2 - 85152\,{T_1}^2T_2 - 166812\,{T_1}^2{V_1}^3 - 312336\,{T_1}^3{V_1}^2 - 312336\,V_1{T_1}^4 - 55008\,T_1{V_1}^4)x^6 + (65544\,{V_1}^6 + 2065536\,{T_1}^2V_1T_2 + 500256\,T_1{V_1}^2V_2 + 1032768\,{T_1}^2V_1V_2 + 1000512\,T_1{V_1}^2T_2 + 64512\,{T_2}^2 + 16128\,{V_2}^2 + 1268736\,{T_1}^6 + 4005600\,{T_1}^3{V_1}^3 + 5774400\,{T_1}^4{V_1}^2 + 4473216\,V_1{T_1}^5 + 1789200\,{T_1}^2{V_1}^4 + 64512\,T_2V_2 + 99504\,{V_1}^3V_2 + 199008\,{V_1}^3T_2 + 488016\,T_1{V_1}^5 + 667008\,{T_1}^3V_2 + 1334016\,{T_1}^3T_2)x^7 + (-5685732\,T_1{V_1}^3V_2 - 1231368\,V_1T_2V_2 - 21511560\,{T_1}^3V_1V_2 - 2462736\,T_1T_2V_2 - 31651656\,{T_1}^2{V_1}^2T_2 - 43023120\,{T_1}^3V_1T_2 - 11371464\,T_1{V_1}^3T_2 - 15825828\,{T_1}^2{V_1}^2V_2 - 15414528\,{T_1}^7 - 65532\,T_3 - 32766\,V_3 - 522456\,{V_1}^7 - 957981\,{V_1}^4V_2 - 324225\,V_1{V_2}^2 - 1264134\,V_1{T_2}^2 - 615684\,T_1{V_2}^2 - 2462736\,T_1{T_2}^2 - 1883196\,{V_1}^4T_2 - 18662454\,{T_1}^2{V_1}^5 - 10172862\,{T_1}^4V_2 - 20280192\,{T_1}^4T_2 - 88042977\,{T_1}^4{V_1}^3 - 101822148\,{T_1}^5{V_1}^2 - 64090944\,V_1{T_1}^6 - 49545108\,{T_1}^3{V_1}^4 - 4374909\,T_1{V_1}^6)x^8 + O(x^9))$

$[5]_{VT}(x) = (5\,x + (-20\,T_1 - 10\,V_1)x^2 + (200\,{T_1}^2 + 200\,T_1V_1 + 50\,{V_1}^2)x^3 + (-620\,T_2 - 3910\,V_1{T_1}^2 - 310\,V_2 - 455\,{V_1}^3 - 2400\,{T_1}^3 - 1800\,T_1{V_1}^2)x^4 + (4025\,{V_1}^4 + 32000\,{T_1}^4 + 72100\,V_1{T_1}^3 + 4050\,V_1V_2 + 8100\,V_1T_2 + 8100\,T_1V_2 + 16200\,T_1T_2 + 20050\,T_1{V_1}^3 + 52050\,{T_1}^2{V_1}^2)x^5 + (-35925\,{V_1}^5 - 346800\,T_1V_1T_2 - 173400\,T_1V_1V_2 - 456000\,{T_1}^5 - 43350\,{V_1}^2V_2 - 86700\,{V_1}^2T_2 - 173400\,{T_1}^2V_2 - 346800\,{T_1}^2T_2 - 700050\,{T_1}^2{V_1}^3 - 1313400\,{T_1}^3{V_1}^2 - 1313400\,V_1{T_1}^4 - 229200\,T_1{V_1}^4)x^6 + (342000\,{V_1}^6 + 10696000\,{T_1}^2V_1T_2 + 2596500\,T_1{V_1}^2V_2 + 5348000\,{T_1}^2V_1V_2 + 5193000\,T_1{V_1}^2T_2 + 310000\,{T_2}^2 + 77500\,{V_2}^2 + 6800000\,{T_1}^6 + 21327500\,{T_1}^3{V_1}^3 + 30770500\,{T_1}^4{V_1}^2 + 23862000\,V_1{T_1}^5 + 9481750\,{T_1}^2{V_1}^4 + 310000\,T_2V_2 + 510250\,{V_1}^3V_2 + 1020500\,{V_1}^3T_2 + 2573250\,T_1{V_1}^5 + 3462000\,{T_1}^3V_2 + 6924000\,{T_1}^3T_2)x^7 + (-37308100\,T_1{V_1}^3V_2 - 7652200\,V_1T_2V_2 - 141580200\,{T_1}^3V_1V_2 - 15304400\,T_1T_2V_2 - 208544200\,{T_1}^2{V_1}^2T_2 - 283160400\,{T_1}^3V_1T_2 - 74616200\,T_1{V_1}^3T_2 - 104272100\,{T_1}^2{V_1}^2V_2 - 104800000\,{T_1}^7 - 390620\,T_3 - 195310\,V_3 - 3438465\,{V_1}^7 - 6195955\,{V_1}^4V_2 - 2010705\,V_1{V_2}^2 - 7847510\,V_1{T_2}^2 - 3826100\,T_1{V_2}^2 - 15304400\,T_1{T_2}^2 - 12196600\,{V_1}^4T_2 - 125096300\,{T_1}^2{V_1}^5 - 67159310\,{T_1}^4V_2 - 133928000\,{T_1}^4T_2 - 594438705\,{T_1}^4{V_1}^3 - 687954100\,{T_1}^5{V_1}^2 - 433764000\,V_1{T_1}^6 - 333522100\,{T_1}^3{V_1}^4 - 29160025\,T_1{V_1}^6)x^8 + O(x^9))$

$[6]_{VT}(x) = (6\,x + (-30\,T_1 - 15\,V_1)x^2 + (360\,{T_1}^2 + 360\,T_1V_1 + 90\,{V_1}^2)x^3 + (-1290\,T_2 - 8475\,V_1{T_1}^2 - 645\,V_2 - 975\,{V_1}^3 - 5220\,{T_1}^3 - 3915\,T_1{V_1}^2)x^4 + (10440\,{V_1}^4 + 84240\,{T_1}^4 + 189180\,V_1{T_1}^3 + 10350\,V_1V_2 + 20700\,V_1T_2 + 20700\,T_1V_2 + 41400\,T_1T_2 + 52470\,T_1{V_1}^3 + 136710\,{T_1}^2{V_1}^2)x^5 + (-112905\,{V_1}^5 - 1079640\,T_1V_1T_2 - 539820\,T_1V_1V_2 - 1453680\,{T_1}^5 - 134955\,{V_1}^2V_2 - 269910\,{V_1}^2T_2 - 539820\,{T_1}^2V_2 - 1079640\,{T_1}^2T_2 - 2221965\,{T_1}^2{V_1}^3 - 4174020\,{T_1}^3{V_1}^2 - 4174020\,V_1{T_1}^4 - 724185\,T_1{V_1}^4)x^6 + (1298430\,{V_1}^6 + 40402800\,{T_1}^2V_1T_2 + 9822060\,T_1{V_1}^2V_2 + 20201400\,{T_1}^2V_1V_2 + 19644120\,T_1{V_1}^2T_2 + 1114560\,{T_2}^2 + 278640\,{V_2}^2 + 26256960\,{T_1}^6 + 82012500\,{T_1}^3{V_1}^3 + 118386360\,{T_1}^4{V_1}^2 + 91866960\,V_1{T_1}^5 + 36353610\,{T_1}^2{V_1}^4 + 1114560\,T_2V_2 + 1915650\,{V_1}^3V_2 + 3831300\,{V_1}^3T_2 + 9834210\,T_1{V_1}^5 + 13096080\,{T_1}^3V_2 + 26192160\,{T_1}^3T_2)x^7 + (-170613225\,T_1{V_1}^3V_2 - 33763410\,V_1T_2V_2 - 648689490\,{T_1}^3V_1V_2 - 67526820\,T_1T_2V_2 - 956152530\,{T_1}^2{V_1}^2T_2 - 1297378980\,{T_1}^3V_1T_2 - 341226450\,T_1{V_1}^3T_2 - 478076265\,{T_1}^2{V_1}^2V_2 - 490205520\,{T_1}^7 - 1679610\,T_3 - 839805\,V_3 - 15758115\,{V_1}^7 - 28077195\,{V_1}^4V_2 - 8860755\,V_1{V_2}^2 - 34603215\,V_1{T_2}^2 - 16881705\,T_1{V_2}^2 - 67526820\,T_1{T_2}^2 - 55314585\,{V_1}^4T_2 - 579951945\,{T_1}^2{V_1}^5 - 308302845\,{T_1}^4V_2 - 614926080\,{T_1}^4T_2 - 2768435985\,{T_1}^4{V_1}^3 - 3205386765\,{T_1}^5{V_1}^2 - 2023182360\,V_1{T_1}^6 - 1550400840\,{T_1}^3{V_1}^4 - 134702415\,T_1{V_1}^6)x^8 + O(x^9))$

$[7]_{VT}(x) = (7\,x + (-42\,T_1 - 21\,V_1)x^2 + (588\,{T_1}^2 + 588\,T_1V_1 + 147\,{V_1}^2)x^3 + (-2394\,T_2 - 16191\,V_1{T_1}^2 - 1197\,V_2 - 1848\,{V_1}^3 - 9996\,{T_1}^3 - 7497\,T_1{V_1}^2)x^4 + (23226\,{V_1}^4 + 189336\,{T_1}^4 + 424242\,V_1{T_1}^3 + 22785\,V_1V_2 + 45570\,V_1T_2 + 45570\,T_1V_2 + 91140\,T_1T_2 + 117453\,T_1{V_1}^3 + 306789\,{T_1}^2{V_1}^2)x^5 + (-295029\,{V_1}^5 - 2802408\,T_1V_1T_2 - 1401204\,T_1V_1V_2 - 3836112\,{T_1}^5 - 350301\,{V_1}^2V_2 - 700602\,{V_1}^2T_2 - 1401204\,{T_1}^2V_2 - 2802408\,{T_1}^2T_2 - 5846043\,{T_1}^2{V_1}^3 - 10991484\,{T_1}^3{V_1}^2 - 10991484\,V_1{T_1}^4 - 1899387\,T_1{V_1}^4)x^6 + (3977085\,{V_1}^6 + 123307128\,{T_1}^2V_1T_2 + 30005640\,T_1{V_1}^2V_2 + 61653564\,{T_1}^2V_1V_2 + 60011280\,T_1{V_1}^2T_2 + 3284568\,{T_2}^2 + 821142\,{V_2}^2 + 81365088\,{T_1}^6 + 253422120\,{T_1}^3{V_1}^3 + 365951502\,{T_1}^4{V_1}^2 + 284102784\,V_1{T_1}^5 + 112107492\,{T_1}^2{V_1}^4 + 3284568\,T_2V_2 + 5822082\,{V_1}^3V_2 + 11644164\,{V_1}^3T_2 + 30258774\,T_1{V_1}^5 + 40007520\,{T_1}^3V_2 + 80015040\,{T_1}^3T_2)x^7 + (-611263485\,T_1{V_1}^3V_2 - 117940746\,V_1T_2V_2 - 2327113194\,{T_1}^3V_1V_2 - 235881492\,T_1T_2V_2 - 3431699418\,{T_1}^2{V_1}^2T_2 - 4654226388\,{T_1}^3V_1T_2 - 1222526970\,T_1{V_1}^3T_2 - 1715849709\,{T_1}^2{V_1}^2V_2 - 1783923792\,{T_1}^7 - 5764794\,T_3 - 2882397\,V_3 - 56547120\,{V_1}^7 - 99963024\,{V_1}^4V_2 - 30926385\,V_1{V_2}^2 - 120823143\,V_1{T_2}^2 - 58970373\,T_1{V_2}^2 - 235881492\,T_1{T_2}^2 - 197043651\,{V_1}^4T_2 - 2097661482\,{T_1}^2{V_1}^5 - 1107468621\,{T_1}^4V_2 - 2209172448\,{T_1}^4T_2 - 10044765423\,{T_1}^4{V_1}^3 - 11633742729\,{T_1}^5{V_1}^2 - 7348319496\,V_1{T_1}^6 - 5618183004\,{T_1}^3{V_1}^4 - 486005814\,T_1{V_1}^6)x^8 + O(x^9))$

$[8]_{VT}(x) = (8\,x + (-56\,T_1 - 28\,V_1)x^2 + (896\,{T_1}^2 + 896\,T_1V_1 + 224\,{V_1}^2)x^3 + (-4088\,T_2 - 28252\,V_1{T_1}^2 - 2044\,V_2 - 3206\,{V_1}^3 - 17472\,{T_1}^3 - 13104\,T_1{V_1}^2)x^4 + (46256\,{V_1}^4 + 379904\,{T_1}^4 + 849856\,V_1{T_1}^3 + 45024\,V_1V_2 + 90048\,V_1T_2 + 90048\,T_1V_2 + 180096\,T_1T_2 + 234976\,T_1{V_1}^3 + 614880\,{T_1}^2{V_1}^2)x^5 + (-674856\,{V_1}^5 - 6378624\,T_1V_1T_2 - 3189312\,T_1V_1V_2 - 8838144\,{T_1}^5 - 797328\,{V_1}^2V_2 - 1594656\,{V_1}^2T_2 - 3189312\,{T_1}^2V_2 - 6378624\,{T_1}^2T_2 - 13439664\,{T_1}^2{V_1}^3 - 25284672\,{T_1}^3{V_1}^2 - 25284672\,V_1{T_1}^4 - 4356576\,T_1{V_1}^4)x^6 + (10433472\,{V_1}^6 + 322610176\,{T_1}^2V_1T_2 + 78559488\,T_1{V_1}^2V_2 + 161305088\,{T_1}^2V_1V_2 + 157118976\,T_1{V_1}^2T_2 + 8372224\,{T_2}^2 + 2093056\,{V_2}^2 + 215269376\,{T_1}^6 + 669105920\,{T_1}^3{V_1}^3 + 966472192\,{T_1}^4{V_1}^2 + 750554112\,V_1{T_1}^5 + 295560832\,{T_1}^2{V_1}^4 + 8372224\,T_2V_2 + 15186304\,{V_1}^3V_2 + 30372608\,{V_1}^3T_2 + 79642752\,T_1{V_1}^5 + 104745984\,{T_1}^3V_2 + 209491968\,{T_1}^3T_2)x^7 + (-1836130576\,T_1{V_1}^3V_2 - 347660320\,V_1T_2V_2 - 6996861984\,{T_1}^3V_1V_2 - 695320640\,T_1T_2V_2 - 10321462816\,{T_1}^2{V_1}^2T_2 - 13993723968\,{T_1}^3V_1T_2 - 3672261152\,T_1{V_1}^3T_2 - 5160731408\,{T_1}^2{V_1}^2V_2 - 5420240896\,{T_1}^7 - 16777208\,T_3 - 8388604\,V_3 - 170065329\,{V_1}^7 - 298896934\,{V_1}^4V_2 -$

$91109382\,V_1{V_2}^2 - 356048924\,V_1{T_2}^2 - 173830160\,T_1{V_2}^2 - 695320640\,T_1{T_2}^2 - 589405264\,{V_1}^4T_2 - 6345186344\,{T_1}^2{V_1}^5 - 3332989436\,{T_1}^4V_2 - 6649201664\,{T_1}^4T_2 - 30453864966\,{T_1}^4{V_1}^3 - 35279296528\,{T_1}^5{V_1}^2 - 22295443968\,V_1{T_1}^6 - 17017508368\,{T_1}^3{V_1}^4 - 1467446596\,T_1{V_1}^6)x^8 + O(x^9))$

7.7. $F_{W,T}(x,y)$ **at** $p = 2$ **over** $\mathbb{Z}_{(2)}[W;T]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> lambda:=(p,n)->expand(add(lambda(p,i)*w[n-i]^(p^i),
  i=0..(n-1))/(p-p^(p^n)));
> w[0]:=2:
> lambda(2,0):=1:
> lambda(2,1);
> lambda(2,2);
> unassign('w');
> F_WT:=proc(p,d)
> local tot,C,t,f_WT,logWT,expWT,e_WT,F_WT,w;
> tot:=evalf(1+ceil(log(d-1)/log(p)));
> # print(tot); # the evalf above is necessary!!!
> w[0]:=p: lambda(p,0):=1:
  # some initial values for the recursion
> C[0]:=1: t[0]:=1:
> f_WT:=x->add( (add(lambda(p,j)*t[i-j]^(p^j),
  j=0..i))*x^(p^i), i=0..tot);
> print(f_WT(x));
> latex(f_WT(x));
> logWT:=powpoly(f_WT(x),x);
> expWT:=reversion(logWT);
> e_WT:=x->convert(simplify(tpsform(expWT,x,d+2)),
  polynom);
> F_WT:=(x,y)->sort(simplify(mtaylor(subs(
  z=f_WT(x)+f_WT(y),e_WT(z)),[x,y],d+1)), [x,y]);
> print(F_WT(x,y));
> latex(F_WT(x,y));
> end proc:
> F_WT(2,9);
```

The results of these computations are that the logarithm $\log_{W,T}(x)$ at $p = 2$ equals

$x + (t_1 - 1/2\,w_1)x^2 + (t_2 - 1/2\,w_1t_1{}^2 - 1/14\,w_2 + 1/28\,{w_1}^3)x^4 + (t_3 - 1/2\,w_1t_2{}^2 + (-1/14\,w_2 + 1/28\,{w_1}^3)t_1{}^4 - \frac{1}{254}\,w_3 + \frac{1}{508}\,w_1{w_2}^2 + \frac{1}{3556}\,{w_1}^4w_2 - \frac{1}{7112}\,{w_1}^7)x^8 + (t_4 - 1/2\,w_1t_3{}^2 + (-1/14\,w_2 + 1/28\,{w_1}^3)t_2{}^4 + (-\frac{1}{254}\,w_3 + \frac{1}{508}\,w_1{w_2}^2 + \frac{1}{3556}\,{w_1}^4w_2 - \frac{1}{7112}\,{w_1}^7)t_1{}^8 - \frac{1}{65534}\,w_4 + \frac{1}{131068}\,w_1{w_3}^2 + \frac{1}{917476}\,{w_2}^5 - \frac{1}{1834952}\,{w_2}^4{w_1}^3 + \frac{1}{16645636}\,{w_1}^8w_3 - \frac{1}{33291272}\,{w_1}^9{w_2}^2 - \frac{1}{233038904}\,{w_1}^{12}w_2 + \frac{1}{466077808}\,{w_1}^{15})x^{16}$

and the formal group law $F_{W,T}(x,y)$ at $p = 2$ equals

$x + y$

$+w_1xy - 2\,t_1xy$

$-4\,t_1w_1x^2y + {w_1}^2x^2y + 4\,{t_1}^2x^2y + 4\,{t_1}^2xy^2 - 4\,t_1w_1xy^2 + {w_1}^2xy^2$

$$-4\,t_2x^3y + 14\,w_1t_1{}^2x^3y + 2/7\,w_2x^3y - 8\,t_1{}^3x^3y + 6/7\,w_1{}^3x^3y - 6\,t_1w_1{}^2x^3y - 15\,t_1w_1{}^2x^2y^2 + 33\,w_1t_1{}^2x^2y^2 + 3/7\,w_2x^2y^2 - 6\,t_2x^2y^2 - 20\,t_1{}^3x^2y^2 + \tfrac{16}{7}\,w_1{}^3x^2y^2 + 14\,w_1t_1{}^2xy^3 - 6\,t_1w_1{}^2xy^3 - 8\,t_1{}^3xy^3 + 6/7\,w_1{}^3xy^3 + 2/7\,w_2xy^3 - 4\,t_2xy^3$$

$$+5/7\,w_1{}^4x^4y - 8\,w_1t_2x^4y + 16\,t_1t_2x^4y - 40\,w_1t_1{}^3x^4y + 16\,t_1{}^4x^4y - \tfrac{8}{7}\,t_1w_2x^4y + 4/7\,w_1w_2x^4y + 28\,t_1{}^2w_1{}^2x^4y - \tfrac{52}{7}\,t_1w_1{}^3x^4y - 22\,w_1t_2x^3y^2 - \tfrac{241}{7}\,t_1w_1{}^3x^3y^2 + \tfrac{11}{7}\,w_1w_2x^3y^2 + 119\,t_1{}^2w_1{}^2x^3y^2 - 166\,w_1t_1{}^3x^3y^2 - \tfrac{22}{7}\,t_1w_2x^3y^2 + \tfrac{26}{7}\,w_1{}^4x^3y^2 + 44\,t_1t_2x^3y^2 + 72\,t_1{}^4x^3y^2 - 166\,w_1t_1{}^3x^2y^3 + 44\,t_1t_2x^2y^3 - 22\,w_1t_2x^2y^3 + \tfrac{26}{7}\,w_1{}^4x^2y^3 - \tfrac{22}{7}\,t_1w_2x^2y^3 - \tfrac{241}{7}\,t_1w_1{}^3x^2y^3 + 72\,t_1{}^4x^2y^3 + 119\,t_1{}^2w_1{}^2x^2y^3 + \tfrac{11}{7}\,w_1w_2x^2y^3 + 5/7\,w_1{}^4xy^4 + 16\,t_1t_2xy^4 - 40\,w_1t_1{}^3xy^4 - 8\,w_1t_2xy^4 + 16\,t_1{}^4xy^4 - \tfrac{52}{7}\,t_1w_1{}^3xy^4 + 28\,t_1{}^2w_1{}^2xy^4 - \tfrac{8}{7}\,t_1w_2xy^4 + 4/7\,w_1w_2xy^4$$

$$-32\,t_1{}^5x^5y - 104\,t_1{}^3w_1{}^2x^5y - \tfrac{58}{7}\,t_1w_1{}^4x^5y + 6/7\,w_1{}^2w_2x^5y + \tfrac{24}{7}\,t_1{}^2w_2x^5y - 12\,w_1{}^2t_2x^5y + 4/7\,w_1{}^5x^5y - 48\,t_1{}^2t_2x^5y + \tfrac{310}{7}\,t_1{}^2w_1{}^3x^5y + 104\,w_1t_1{}^4x^5y - \tfrac{24}{7}\,t_1w_1w_2x^5y + 48\,t_1w_1t_2x^5y + 224\,t_1w_1t_2x^4y^2 - 224\,t_1{}^5x^4y^2 - 56\,w_1{}^2t_2x^4y^2 - 62\,t_1w_1{}^4x^4y^2 - 224\,t_1{}^2t_2x^4y^2 - 672\,t_1{}^3w_1{}^2x^4y^2 + 300\,t_1{}^2w_1{}^3x^4y^2 + 672\,w_1t_1{}^4x^4y^2 + 16\,t_1{}^2w_2x^4y^2 + 5\,w_1{}^5x^4y^2 - 16\,t_1w_1w_2x^4y^2 + 4\,w_1{}^2w_2x^4y^2 + 344\,t_1w_1t_2x^3y^3 - \tfrac{789}{7}\,t_1w_1{}^4x^3y^3 - 400\,t_1{}^5x^3y^3 + \tfrac{172}{7}\,t_1{}^2w_2x^3y^3 - 1172\,t_1{}^3w_1{}^2x^3y^3 - 86\,w_1{}^2t_2x^3y^3 + \tfrac{3715}{7}\,t_1{}^2w_1{}^3x^3y^3 + 1172\,w_1t_1{}^4x^3y^3 - 344\,t_1{}^2t_2x^3y^3 - \tfrac{172}{7}\,t_1w_1w_2x^3y^3 + \tfrac{66}{7}\,w_1{}^5x^3y^3 + \tfrac{43}{7}\,w_1{}^2w_2x^3y^3 - 224\,t_1{}^5x^2y^4 + 4\,w_1{}^2w_2x^2y^4 - 56\,w_1{}^2t_2x^2y^4 + 300\,t_1{}^2w_1{}^3x^2y^4 - 62\,t_1w_1{}^4x^2y^4 + 16\,t_1{}^2w_2x^2y^4 + 5\,w_1{}^5x^2y^4 - 16\,t_1w_1w_2x^2y^4 + 224\,t_1w_1t_2x^2y^4 + 672\,w_1t_1{}^4x^2y^4 - 224\,t_1{}^2t_2x^2y^4 - 672\,t_1{}^3w_1{}^2x^2y^4 + 104\,w_1t_1{}^4xy^5 + \tfrac{24}{7}\,t_1{}^2w_2xy^5 - \tfrac{24}{7}\,t_1w_1w_2xy^5 + 6/7\,w_1{}^2w_2xy^5 - 12\,w_1{}^2t_2xy^5 - 32\,t_1{}^5xy^5 + 48\,t_1w_1t_2xy^5 - 104\,t_1{}^3w_1{}^2xy^5 + \tfrac{310}{7}\,t_1{}^2w_1{}^3xy^5 - 48\,t_1{}^2t_2xy^5 - \tfrac{58}{7}\,t_1w_1{}^4xy^5 + 4/7\,w_1{}^5xy^5$$

$$+96\,t_1w_1{}^2t_2x^6y + 340\,t_1{}^4w_1{}^2x^6y - \tfrac{1424}{7}\,t_1{}^3w_1{}^3x^6y + \tfrac{4}{49}\,w_2{}^2x^6y - 208\,t_1{}^2w_1t_2x^6y + 16\,t_2{}^2x^6y - 256\,w_1t_1{}^5x^6y + 64\,t_1{}^6x^6y + 128\,t_1{}^3t_2x^6y - \tfrac{48}{7}\,t_1w_1{}^2w_2x^6y + \tfrac{104}{7}\,t_1{}^2w_1w_2x^6y + \tfrac{424}{7}\,t_1{}^2w_1{}^4x^6y - \tfrac{16}{7}\,t_2w_2x^6y + \tfrac{52}{49}\,w_1{}^3w_2x^6y - \tfrac{64}{7}\,t_1{}^3w_2x^6y - \tfrac{60}{7}\,t_1w_1{}^5x^6y + \tfrac{22}{49}\,w_1{}^6x^6y - \tfrac{104}{7}\,w_1{}^3t_2x^6y + \tfrac{381}{49}\,w_1{}^3w_2x^5y^2 - \tfrac{762}{7}\,w_1{}^3t_2x^5y^2 + \tfrac{18}{49}\,w_2{}^2x^5y^2 - \tfrac{669}{7}\,t_1w_1{}^5x^5y^2 - 1440\,t_1{}^2w_1t_2x^5y^2 + \tfrac{295}{49}\,w_1{}^6x^5y^2 - \tfrac{72}{7}\,t_2w_2x^5y^2 - \tfrac{342}{7}\,t_1w_1{}^2w_2x^5y^2 + 640\,t_1{}^6x^5y^2 + 684\,t_1w_1{}^2t_2x^5y^2 - \tfrac{456}{7}\,t_1{}^3w_2x^5y^2 + 3102\,t_1{}^4w_1{}^2x^5y^2 + \tfrac{720}{7}\,t_1{}^2w_1w_2x^5y^2 + 72\,t_2{}^2x^5y^2 + \tfrac{4239}{7}\,t_1{}^2w_1{}^4x^5y^2 + 912\,t_1{}^3t_2x^5y^2 - 2376\,w_1t_1{}^5x^5y^2 - \tfrac{13366}{7}\,t_1{}^3w_1{}^3x^5y^2 + 136\,t_2{}^2x^4y^3 - 3256\,t_1{}^2w_1t_2x^4y^3 - 6320\,w_1t_1{}^5x^4y^3 - \tfrac{1920}{7}\,t_1w_1{}^5x^4y^3 - \tfrac{35740}{7}\,t_1{}^3w_1{}^3x^4y^3 + \tfrac{34}{49}\,w_2{}^2x^4y^3 + 1560\,t_1w_1{}^2t_2x^4y^3 + 2080\,t_1{}^3t_2x^4y^3 + 1760\,t_1{}^6x^4y^3 - \tfrac{780}{7}\,t_1w_1{}^2w_2x^4y^3 - \tfrac{1040}{7}\,t_1{}^3w_2x^4y^3 - \tfrac{1752}{7}\,w_1{}^3t_2x^4y^3 + \tfrac{11646}{7}\,t_1{}^2w_1{}^4x^4y^3 + 8194\,t_1{}^4w_1{}^2x^4y^3 + \tfrac{901}{49}\,w_1{}^6x^4y^3 + \tfrac{1628}{7}\,t_1{}^2w_1w_2x^4y^3 + \tfrac{876}{49}\,w_1{}^3w_2x^4y^3 - \tfrac{136}{7}\,t_2w_2x^4y^3 + \tfrac{901}{49}\,w_1{}^6x^3y^4 - \tfrac{1920}{7}\,t_1w_1{}^5x^3y^4 + 1560\,t_1w_1{}^2t_2x^3y^4 + 8194\,t_1{}^4w_1{}^2x^3y^4 + \tfrac{34}{49}\,w_2{}^2x^3y^4 + \tfrac{1628}{7}\,t_1{}^2w_1w_2x^3y^4 + \tfrac{876}{49}\,w_1{}^3w_2x^3y^4 - \tfrac{136}{7}\,t_2w_2x^3y^4 - 3256\,t_1{}^2w_1t_2x^3y^4 - \tfrac{780}{7}\,t_1w_1{}^2w_2x^3y^4 + 1760\,t_1{}^6x^3y^4 + 136\,t_2{}^2x^3y^4 - \tfrac{35740}{7}\,t_1{}^3w_1{}^3x^3y^4 - 6320\,w_1t_1{}^5x^3y^4 - \tfrac{1040}{7}\,t_1{}^3w_2x^3y^4 + \tfrac{11646}{7}\,t_1{}^2w_1{}^4x^3y^4 + 2080\,t_1{}^3t_2x^3y^4 - \tfrac{1752}{7}\,w_1{}^3t_2x^3y^4 + 640\,t_1{}^6x^2y^5 - 1440\,t_1{}^2w_1t_2x^2y^5 + \tfrac{295}{49}\,w_1{}^6x^2y^5 + \tfrac{720}{7}\,t_1{}^2w_1w_2x^2y^5 - \tfrac{72}{7}\,t_2w_2x^2y^5 + \tfrac{381}{49}\,w_1{}^3w_2x^2y^5 + \tfrac{18}{49}\,w_2{}^2x^2y^5 - \tfrac{762}{7}\,w_1{}^3t_2x^2y^5 - \tfrac{456}{7}\,t_1{}^3w_2x^2y^5 + 912\,t_1{}^3t_2x^2y^5 - 2376\,w_1t_1{}^5x^2y^5 + 684\,t_1w_1{}^2t_2x^2y^5 + 72\,t_2{}^2x^2y^5 - \tfrac{342}{7}\,t_1w_1{}^2w_2x^2y^5 + 3102\,t_1{}^4w_1{}^2x^2y^5 - \tfrac{669}{7}\,t_1w_1{}^5x^2y^5 + \tfrac{4239}{7}\,t_1{}^2w_1{}^4x^2y^5 - \tfrac{13366}{7}\,t_1{}^3w_1{}^3x^2y^5 + 16\,t_2{}^2xy^6 - 256\,w_1t_1{}^5xy^6 - \tfrac{48}{7}\,t_1w_1{}^2w_2xy^6 + 64\,t_1{}^6xy^6 + \tfrac{4}{49}\,w_2{}^2xy^6 - \tfrac{64}{7}\,t_1{}^3w_2xy^6 - \tfrac{104}{7}\,w_1{}^3t_2xy^6 - \tfrac{60}{7}\,t_1w_1{}^5xy^6 + 96\,t_1w_1{}^2t_2xy^6 - \tfrac{16}{7}\,t_2w_2xy^6 + 340\,t_1{}^4w_1{}^2xy^6 + \tfrac{424}{7}\,t_1{}^2w_1{}^4xy^6 + \tfrac{52}{49}\,w_1{}^3w_2xy^6 - \tfrac{1424}{7}\,t_1{}^3w_1{}^3xy^6 + 128\,t_1{}^3t_2xy^6 - 208\,t_1{}^2w_1t_2xy^6 + \tfrac{104}{7}\,t_1{}^2w_1w_2xy^6 + \tfrac{22}{49}\,w_1{}^6xy^6$$

$$+608\,w_1t_1{}^6x^7y + 736\,t_1{}^3w_1t_2x^7y + \tfrac{164}{7}\,t_1{}^4w_2x^7y + \tfrac{1072}{7}\,t_1w_1{}^3t_2x^7y + \tfrac{264}{7}\,t_1{}^2w_1{}^2w_2x^7y - \tfrac{48}{7}\,w_1t_2w_2x^7y + \tfrac{4}{127}\,w_3x^7y - 128\,t_1{}^7x^7y + \tfrac{2166}{6223}\,w_1{}^7x^7y - 528\,t_1{}^2w_1{}^2t_2x^7y + \tfrac{526}{7}\,t_1{}^2w_1{}^5x^7y - 1016\,t_1{}^5w_1{}^2x^7y + 52\,w_1t_2{}^2x^7y - \tfrac{368}{7}\,t_1{}^3w_1w_2x^7y - 320\,t_1{}^4t_2x^7y - \tfrac{2336}{7}\,t_1{}^3w_1{}^4x^7y + \tfrac{5602}{7}\,t_1{}^4w_1{}^3x^7y + \tfrac{7352}{6223}\,w_1{}^4w_2x^7y - \tfrac{24}{49}\,t_1w_2{}^2x^7y - \tfrac{412}{49}\,t_1w_1{}^6x^7y - \tfrac{536}{49}\,t_1w_1{}^3w_2x^7y - 8\,t_3x^7y - 96\,t_1t_2{}^2x^7y - \tfrac{116}{7}\,w_1{}^4t_2x^7y + \tfrac{96}{7}\,t_1t_2w_2x^7y +$$

$$\tfrac{1426}{6223}\,w_1w_2{}^2x^7y - \tfrac{328}{7}\,w_1t_2w_2x^6y^2 + 342\,w_1t_2{}^2x^6y^2 + 7120\,t_1{}^3w_1t_2x^6y^2 + \tfrac{14}{127}\,w_3x^6y^2 - 3232\,t_1{}^4t_2x^6y^2 + \tfrac{79326}{6223}\,w_1{}^4w_2x^6y^2 - 12468\,t_1{}^5w_1{}^2x^6y^2 + \tfrac{69647}{7}\,t_1{}^4w_1{}^3x^6y^2 - 656\,t_1t_2{}^2x^6y^2 + 7664\,w_1t_1{}^6x^6y^2 - \tfrac{6474}{49}\,t_1w_1{}^6x^6y^2 + \tfrac{10984}{7}\,t_1w_1{}^3t_2x^6y^2 + \tfrac{7351}{7}\,t_1{}^2w_1{}^5x^6y^2 - \tfrac{3560}{7}\,t_1{}^3w_1w_2x^6y^2 - \tfrac{1250}{7}\,w_1{}^4t_2x^6y^2 - 5176\,t_1{}^2w_1{}^2t_2x^6y^2 + \tfrac{656}{7}\,t_1t_2w_2x^6y^2 + \tfrac{41744}{6223}\,w_1{}^7x^6y^2 - 28\,t_3x^6y^2 - \tfrac{5492}{49}\,t_1w_1{}^3w_2x^6y^2 + \tfrac{10071}{6223}\,w_1w_2{}^2x^6y^2 - 1728\,t_1{}^7x^6y^2 - \tfrac{30336}{7}\,t_1{}^3w_1{}^4x^6y^2 + \tfrac{2588}{7}\,t_1{}^2w_1{}^2w_2x^6y^2 + \tfrac{1630}{7}\,t_1{}^4w_2x^6y^2 - \tfrac{164}{49}\,t_1w_2{}^2x^6y^2 + \tfrac{28}{127}\,w_3x^5y^3 - \tfrac{424}{49}\,t_1w_2{}^2x^5y^3 - 56\,t_3x^5y^3 - 6720\,t_1{}^7x^5y^3 - 1696\,t_1t_2{}^2x^5y^3 - \tfrac{4126}{7}\,w_1{}^4t_2x^5y^3 + \tfrac{5228}{7}\,t_1{}^4w_2x^5y^3 - \tfrac{115476}{7}\,t_1{}^3w_1{}^4x^5y^3 - 10400\,t_1{}^4t_2x^5y^3 + \tfrac{261903}{6223}\,w_1{}^4w_2x^5y^3 + \tfrac{259270}{7}\,t_1{}^4w_1{}^3x^5y^3 - \tfrac{848}{7}\,w_1t_2w_2x^5y^3 - 16448\,t_1{}^2w_1{}^2t_2x^5y^3 + \tfrac{1696}{7}\,t_1t_2w_2x^5y^3 + \tfrac{29033}{7}\,t_1{}^2w_1{}^5x^5y^3 + 22496\,t_1{}^3w_1t_2x^5y^3 - \tfrac{11248}{7}\,t_1{}^3w_1w_2x^5y^3 + \tfrac{189025}{6223}\,w_1{}^7x^5y^3 + \tfrac{26238}{6223}\,w_1w_2{}^2x^5y^3 - 46104\,t_1{}^5w_1{}^2x^5y^3 + \tfrac{35552}{7}\,t_1w_1{}^3t_2x^5y^3 + 28720\,w_1t_1{}^6x^5y^3 - \tfrac{17776}{49}\,t_1w_1{}^3w_2x^5y^3 + 876\,w_1t_2{}^2x^5y^3 + \tfrac{8224}{7}\,t_1{}^2w_1{}^2w_2x^5y^3 - \tfrac{27021}{49}\,t_1w_1{}^6x^5y^3 + \tfrac{35274}{6223}\,w_1w_2{}^2x^4y^4 + \tfrac{44788}{7}\,t_1{}^2w_1{}^5x^4y^4 + \tfrac{378909}{6223}\,w_1{}^4w_2x^4y^4 + 32164\,t_1{}^3w_1t_2x^4y^4 - \tfrac{1138}{7}\,w_1t_2w_2x^4y^4 - \tfrac{5969}{7}\,w_1{}^4t_2x^4y^4 + 1173\,w_1t_2{}^2x^4y^4 + \tfrac{35}{127}\,w_3x^4y^4 - \tfrac{569}{49}\,t_1w_2{}^2x^4y^4 + \tfrac{2276}{7}\,t_1t_2w_2x^4y^4 - \tfrac{42375}{49}\,t_1w_1{}^6x^4y^4 + \tfrac{303242}{6223}\,w_1{}^7x^4y^4 - \tfrac{25583}{49}\,t_1w_1{}^3w_2x^4y^4 - 70\,t_3x^4y^4 + \tfrac{51166}{7}\,t_1w_1{}^3t_2x^4y^4 + \tfrac{7507}{7}\,t_1{}^4w_2x^4y^4 + 43592\,w_1t_1{}^6x^4y^4 - \tfrac{176136}{7}\,t_1{}^3w_1{}^4x^4y^4 - 23554\,t_1{}^2w_1{}^2t_2x^4y^4 + \tfrac{11777}{7}\,t_1{}^2w_1{}^2w_2x^4y^4 - 2276\,t_1t_2{}^2x^4y^4 - 69693\,t_1{}^5w_1{}^2x^4y^4 - \tfrac{16082}{7}\,t_1{}^3w_1w_2x^4y^4 - 10320\,t_1{}^7x^4y^4 - 14944\,t_1{}^4t_2x^4y^4 + \tfrac{392744}{7}\,t_1{}^4w_1{}^3x^4y^4 - \tfrac{848}{7}\,w_1t_2w_2x^3y^5 + \tfrac{189025}{6223}\,w_1{}^7x^3y^5 + \tfrac{29033}{7}\,t_1{}^2w_1{}^5x^3y^5 + 28720\,w_1t_1{}^6x^3y^5 - \tfrac{424}{49}\,t_1w_2{}^2x^3y^5 - \tfrac{17776}{49}\,t_1w_1{}^3w_2x^3y^5 - 6720\,t_1{}^7x^3y^5 + \tfrac{35552}{7}\,t_1w_1{}^3t_2x^3y^5 + \tfrac{261903}{6223}\,w_1{}^4w_2x^3y^5 - 16448\,t_1{}^2w_1{}^2t_2x^3y^5 - \tfrac{27021}{49}\,t_1w_1{}^6x^3y^5 - 56\,t_3x^3y^5 - 46104\,t_1{}^5w_1{}^2x^3y^5 + \tfrac{26238}{6223}\,w_1w_2{}^2x^3y^5 + \tfrac{8224}{7}\,t_1{}^2w_1{}^2w_2x^3y^5 - \tfrac{11248}{7}\,t_1{}^3w_1w_2x^3y^5 + 22496\,t_1{}^3w_1t_2x^3y^5 - 10400\,t_1{}^4t_2x^3y^5 - \tfrac{115476}{7}\,t_1{}^3w_1{}^4x^3y^5 + \tfrac{5228}{7}\,t_1{}^4w_2x^3y^5 - 1696\,t_1t_2{}^2x^3y^5 - \tfrac{4126}{7}\,w_1{}^4t_2x^3y^5 + \tfrac{259270}{7}\,t_1{}^4w_1{}^3x^3y^5 + \tfrac{28}{127}\,w_3x^3y^5 + \tfrac{1696}{7}\,t_1t_2w_2x^3y^5 + 876\,w_1t_2{}^2x^3y^5 - 3232\,t_1{}^4t_2x^2y^6 - \tfrac{1250}{7}\,w_1{}^4t_2x^2y^6 + \tfrac{14}{127}\,w_3x^2y^6 - \tfrac{164}{49}\,t_1w_2{}^2x^2y^6 - \tfrac{30336}{7}\,t_1{}^3w_1{}^4x^2y^6 - 12468\,t_1{}^5w_1{}^2x^2y^6 + \tfrac{69647}{7}\,t_1{}^4w_1{}^3x^2y^6 - 28\,t_3x^2y^6 + \tfrac{41744}{6223}\,w_1{}^7x^2y^6 + 7120\,t_1{}^3w_1t_2x^2y^6 - 656\,t_1t_2{}^2x^2y^6 - 1728\,t_1{}^7x^2y^6 + \tfrac{7351}{7}\,t_1{}^2w_1{}^5x^2y^6 - 5176\,t_1{}^2w_1{}^2t_2x^2y^6 + \tfrac{656}{7}\,t_1t_2w_2x^2y^6 - \tfrac{3560}{7}\,t_1{}^3w_1w_2x^2y^6 + 7664\,w_1t_1{}^6x^2y^6 + \tfrac{10071}{6223}\,w_1w_2{}^2x^2y^6 + \tfrac{1630}{7}\,t_1{}^4w_2x^2y^6 + \tfrac{10984}{7}\,t_1w_1{}^3t_2x^2y^6 - \tfrac{5492}{49}\,t_1w_1{}^3w_2x^2y^6 - \tfrac{6474}{49}\,t_1w_1{}^6x^2y^6 + \tfrac{79326}{6223}\,w_1{}^4w_2x^2y^6 - \tfrac{328}{7}\,w_1t_2w_2x^2y^6 + 342\,w_1t_2{}^2x^2y^6 + \tfrac{2588}{7}\,t_1{}^2w_1{}^2w_2x^2y^6 + \tfrac{1072}{7}\,t_1w_1{}^3t_2xy^7 - 8\,t_3xy^7 + \tfrac{1426}{6223}\,w_1w_2{}^2xy^7 - \tfrac{48}{7}\,w_1t_2w_2xy^7 - \tfrac{536}{49}\,t_1w_1{}^3w_2xy^7 - \tfrac{368}{7}\,t_1{}^3w_1w_2xy^7 + 608\,w_1t_1{}^6xy^7 + \tfrac{2166}{6223}\,w_1{}^7xy^7 + 52\,w_1t_2{}^2xy^7 + 736\,t_1{}^3w_1t_2xy^7 - \tfrac{116}{7}\,w_1{}^4t_2xy^7 + \tfrac{264}{7}\,t_1{}^2w_1{}^2w_2xy^7 - \tfrac{2336}{7}\,t_1{}^3w_1{}^4xy^7 - 1016\,t_1{}^5w_1{}^2xy^7 + \tfrac{5602}{7}\,t_1{}^4w_1{}^3xy^7 - 96\,t_1t_2{}^2xy^7 + \tfrac{7352}{6223}\,w_1{}^4w_2xy^7 + \tfrac{96}{7}\,t_1t_2w_2xy^7 + \tfrac{4}{127}\,w_3xy^7 + \tfrac{526}{7}\,t_1{}^2w_1{}^5xy^7 - \tfrac{412}{49}\,t_1w_1{}^6xy^7 - \tfrac{24}{49}\,t_1w_2{}^2xy^7 - 128\,t_1{}^7xy^7 + \tfrac{164}{7}\,t_1{}^4w_2xy^7 - 528\,t_1{}^2w_1{}^2t_2xy^7 - 320\,t_1{}^4t_2xy^7$$

$$\tfrac{384}{7}\,t_1w_1t_2w_2x^8y + \tfrac{3600}{49}\,t_1{}^2w_1{}^3w_2x^8y + 256\,t_1{}^8x^8y + \tfrac{1665}{6223}\,w_1{}^8x^8y - \tfrac{49304}{6223}\,t_1w_1{}^7x^8y + \tfrac{96}{49}\,t_1{}^2w_2{}^2x^8y - \tfrac{7200}{7}\,t_1{}^2w_1{}^3t_2x^8y - 2304\,t_1{}^4w_1t_2x^8y - 400\,t_1w_1t_2{}^2x^8y - \tfrac{1152}{7}\,t_1{}^3w_1{}^2w_2x^8y + \tfrac{1160}{7}\,t_1{}^4w_1w_2x^8y + \tfrac{1488}{7}\,t_1w_1{}^4t_2x^8y - \tfrac{384}{7}\,t_1{}^2t_2w_2x^8y + \tfrac{10788}{7}\,t_1{}^4w_1{}^4x^8y + 384\,t_1{}^2t_2{}^2x^8y + 32\,t_1t_3x^8y - \tfrac{16}{127}\,t_1w_3x^8y - 16\,w_1t_3x^8y + \tfrac{8}{127}\,w_1w_3x^8y + \tfrac{4252}{49}\,t_1{}^2w_1{}^6x^8y - \tfrac{3400}{7}\,t_1{}^3w_1{}^5x^8y - 1408\,w_1t_1{}^7x^8y + 2848\,t_1{}^6w_1{}^2x^8y - \tfrac{19736}{7}\,t_1{}^5w_1{}^3x^8y + 768\,t_1{}^5t_2x^8y - \tfrac{400}{7}\,t_1{}^5w_2x^8y - \tfrac{11800}{6223}\,t_1w_1w_2{}^2x^8y - \tfrac{94432}{6223}\,t_1w_1{}^4w_2x^8y + 104\,w_1{}^2t_2{}^2x^8y + \tfrac{2852}{6223}\,w_1{}^2w_2{}^2x^8y - \tfrac{96}{7}\,w_1{}^2t_2w_2x^8y + \tfrac{7592}{6223}\,w_1{}^5w_2x^8y - \tfrac{120}{7}\,w_1{}^5t_2x^8y + 2304\,t_1{}^3w_1{}^2t_2x^8y + 45336\,t_1{}^6w_1{}^2x^7y^2 + 29824\,t_1{}^3w_1{}^2t_2x^7y^2 - \tfrac{1814}{7}\,w_1{}^5t_2x^7y^2 + \tfrac{936}{49}\,t_1{}^2w_2{}^2x^7y^2 + 4480\,t_1{}^8x^7y^2 + \tfrac{43959}{6223}\,w_1{}^8x^7y^2 + \tfrac{14958}{7}\,t_1{}^4w_1w_2x^7y^2 - \tfrac{314698}{7}\,t_1{}^5w_1{}^3x^7y^2 + 10432\,t_1{}^5t_2x^7y^2 + \tfrac{3744}{7}\,t_1w_1t_2w_2x^7y^2 + \tfrac{47980}{49}\,t_1{}^2w_1{}^3w_2x^7y^2 + 3744\,t_1{}^2t_2{}^2x^7y^2 + 184\,t_1t_3x^7y^2 - \tfrac{92}{127}\,t_1w_3x^7y^2 - \tfrac{1047784}{6223}\,t_1w_1{}^7x^7y^2 - \tfrac{95960}{7}\,t_1{}^2w_1{}^3t_2x^7y^2 + \tfrac{79803}{49}\,t_1{}^2w_1{}^6x^7y^2 - 3836\,t_1w_1t_2{}^2x^7y^2 - \tfrac{14912}{7}\,t_1{}^3w_1{}^2w_2x^7y^2 - 23136\,w_1t_1{}^7x^7y^2 + \tfrac{20948}{7}\,t_1w_1{}^4t_2x^7y^2 - \tfrac{3744}{7}\,t_1{}^2t_2w_2x^7y^2 - \tfrac{1329876}{6223}\,t_1w_1{}^4w_2x^7y^2 - \tfrac{5308}{7}\,t_1{}^5w_2x^7y^2 + \tfrac{28591}{6223}\,w_1{}^2w_2{}^2x^7y^2 + 982\,w_1{}^2t_2{}^2x^7y^2 + \tfrac{46}{127}\,w_1w_3x^7y^2 + \tfrac{115028}{6223}\,w_1{}^5w_2x^7y^2 - 29824\,t_1{}^4w_1t_2x^7y^2 - \tfrac{116618}{6223}\,t_1w_1w_2{}^2x^7y^2 - \tfrac{58834}{7}\,t_1{}^3w_1{}^5x^7y^2 + \tfrac{176999}{7}\,t_1{}^4w_1{}^4x^7y^2 -$$

$$92\,w_1t_3x^7y^2 - \tfrac{936}{7}\,w_1{}^2t_2w_2x^7y^2 + 222896\,t_1{}^6w_1{}^2x^6y^3 + 504\,t_1t_3x^6y^3 + \tfrac{430175}{49}\,t_1{}^2w_1{}^6x^6y^3 +$$
$$13056\,t_1{}^2t_2{}^2x^6y^3 + 45248\,t_1{}^5t_2x^6y^3 + \tfrac{3264}{49}\,t_1{}^2w_2{}^2x^6y^3 + \tfrac{92452}{7}\,t_1w_1{}^4t_2x^6y^3 - \tfrac{408354}{6223}\,t_1w_1w_2{}^2x^6y^3 -$$
$$221262\,t_1{}^5w_1{}^3x^6y^3 + \tfrac{63214}{7}\,t_1{}^4w_1w_2x^6y^3 + \tfrac{206120}{49}\,t_1{}^2w_1{}^3w_2x^6y^3 - \tfrac{6022146}{6223}\,t_1w_1{}^7x^6y^3 - \tfrac{5869820}{6223}\,t_1w_1{}^4w_2x^6y^3 +$$
$$\tfrac{13056}{7}\,t_1w_1t_2w_2x^6y^3 - \tfrac{252}{127}\,t_1w_3x^6y^3 - 115808\,w_1t_1{}^7x^6y^3 + \tfrac{278160}{6223}\,w_1{}^8x^6y^3 + \tfrac{524450}{6223}\,w_1{}^5w_2x^6y^3 -$$
$$\tfrac{303322}{7}\,t_1{}^3w_1{}^5x^6y^3 + 23296\,t_1{}^8x^6y^3 + \tfrac{100545}{6223}\,w_1{}^2w_2{}^2x^6y^3 - \tfrac{13056}{7}\,t_1{}^2t_2w_2x^6y^3 + \tfrac{885505}{7}\,t_1{}^4w_1{}^4x^6y^3 -$$
$$\tfrac{8266}{7}\,w_1{}^5t_2x^6y^3 - \tfrac{63088}{7}\,t_1{}^3w_1{}^2w_2x^6y^3 - 3268\,t_1{}^5w_2x^6y^3 + \tfrac{126}{127}\,w_1w_3x^6y^3 - \tfrac{3264}{7}\,w_1{}^2t_2w_2x^6y^3 +$$
$$3390\,w_1{}^2t_2{}^2x^6y^3 - 252\,w_1t_3x^6y^3 - 126176\,t_1{}^4w_1t_2x^6y^3 - 13308\,t_1w_1t_2{}^2x^6y^3 + 126176\,t_1{}^3w_1{}^2t_2x^6y^3 -$$
$$\tfrac{412240}{7}\,t_1{}^2w_1{}^3t_2x^6y^3 - \tfrac{44886}{7}\,t_1{}^5w_2x^5y^4 - \tfrac{3265919}{7}\,t_1{}^5w_1{}^3x^5y^4 - \tfrac{722335}{6223}\,t_1w_1w_2{}^2x^5y^4 - \tfrac{5766}{7}\,w_1{}^2t_2w_2x^5y^4 +$$
$$469766\,t_1{}^6w_1{}^2x^5y^4 + 5969\,w_1{}^2t_2{}^2x^5y^4 + 88960\,t_1{}^5t_2x^5y^4 + 23064\,t_1{}^2t_2{}^2x^5y^4 + \tfrac{1051929}{6223}\,w_1{}^5w_2x^5y^4 +$$
$$\tfrac{178097}{6223}\,w_1{}^2w_2{}^2x^5y^4 + \tfrac{653421}{6223}\,w_1{}^8x^5y^4 - \tfrac{11623397}{6223}\,t_1w_1{}^4w_2x^5y^4 - 246080\,w_1t_1{}^7x^5y^4 + \tfrac{23064}{7}\,t_1w_1t_2w_2x^5y^4 +$$
$$\tfrac{203}{127}\,w_1w_3x^5y^4 + \tfrac{1881323}{7}\,t_1{}^4w_1{}^4x^5y^4 - \tfrac{807230}{7}\,t_1{}^2w_1{}^3t_2x^5y^4 - 406\,w_1t_3x^5y^4 + \tfrac{122935}{7}\,t_1{}^4w_1w_2x^5y^4 -$$
$$\tfrac{406}{127}\,t_1w_3x^5y^4 + 812\,t_1t_3x^5y^4 + \tfrac{403615}{49}\,t_1{}^2w_1{}^3w_2x^5y^4 + 245464\,t_1{}^3w_1{}^2t_2x^5y^4 + \tfrac{5766}{49}\,t_1{}^2w_2{}^2x^5y^4 -$$
$$\tfrac{653334}{7}\,t_1{}^3w_1{}^5x^5y^4 - \tfrac{122732}{7}\,t_1{}^3w_1{}^2w_2x^5y^4 - 245464\,t_1{}^4w_1t_2x^5y^4 - 23470\,t_1w_1t_2{}^2x^5y^4 + 50400\,t_1{}^8x^5y^4 -$$
$$\tfrac{16577}{7}\,w_1{}^5t_2x^5y^4 - \tfrac{23064}{7}\,t_1{}^2t_2w_2x^5y^4 + \tfrac{183068}{7}\,t_1w_1{}^4t_2x^5y^4 + \tfrac{945311}{49}\,t_1{}^2w_1{}^6x^5y^4 - \tfrac{13607681}{6223}\,t_1w_1{}^7x^5y^4 +$$
$$50400\,t_1{}^8x^4y^5 - \tfrac{23064}{7}\,t_1{}^2t_2w_2x^4y^5 - \tfrac{11623397}{6223}\,t_1w_1{}^4w_2x^4y^5 - 246080\,w_1t_1{}^7x^4y^5 + 88960\,t_1{}^5t_2x^4y^5 +$$
$$\tfrac{5766}{49}\,t_1{}^2w_2{}^2x^4y^5 - \tfrac{653334}{7}\,t_1{}^3w_1{}^5x^4y^5 + \tfrac{945311}{49}\,t_1{}^2w_1{}^6x^4y^5 + \tfrac{403615}{49}\,t_1{}^2w_1{}^3w_2x^4y^5 - \tfrac{3265919}{7}\,t_1{}^5w_1{}^3x^4y^5 +$$
$$\tfrac{203}{127}\,w_1w_3x^4y^5 - \tfrac{44886}{7}\,t_1{}^5w_2x^4y^5 - \tfrac{722335}{6223}\,t_1w_1w_2{}^2x^4y^5 + \tfrac{23064}{7}\,t_1w_1t_2w_2x^4y^5 - \tfrac{807230}{7}\,t_1{}^2w_1{}^3t_2x^4y^5 +$$
$$23064\,t_1{}^2t_2{}^2x^4y^5 + 245464\,t_1{}^3w_1{}^2t_2x^4y^5 + \tfrac{1051929}{6223}\,w_1{}^5w_2x^4y^5 - \tfrac{16577}{7}\,w_1{}^5t_2x^4y^5 + \tfrac{122935}{7}\,t_1{}^4w_1w_2x^4y^5 +$$
$$\tfrac{183068}{7}\,t_1w_1{}^4t_2x^4y^5 + \tfrac{1881323}{7}\,t_1{}^4w_1{}^4x^4y^5 + \tfrac{653421}{6223}\,w_1{}^8x^4y^5 + 469766\,t_1{}^6w_1{}^2x^4y^5 - 245464\,t_1{}^4w_1t_2x^4y^5 -$$
$$\tfrac{5766}{7}\,w_1{}^2t_2w_2x^4y^5 - \tfrac{406}{127}\,t_1w_3x^4y^5 - \tfrac{13607681}{6223}\,t_1w_1{}^7x^4y^5 - 406\,w_1t_3x^4y^5 + 812\,t_1t_3x^4y^5 +$$
$$\tfrac{178097}{6223}\,w_1{}^2w_2{}^2x^4y^5 - 23470\,t_1w_1t_2{}^2x^4y^5 - \tfrac{122732}{7}\,t_1{}^3w_1{}^2w_2x^4y^5 + 5969\,w_1{}^2t_2{}^2x^4y^5 + \tfrac{126}{127}\,w_1w_3x^3y^6 -$$
$$252\,w_1t_3x^3y^6 - \tfrac{63088}{7}\,t_1{}^3w_1{}^2w_2x^3y^6 + \tfrac{100545}{6223}\,w_1{}^2w_2{}^2x^3y^6 - \tfrac{3264}{7}\,w_1{}^2t_2w_2x^3y^6 - \tfrac{13056}{7}\,t_1{}^2t_2w_2x^3y^6 +$$
$$504\,t_1t_3x^3y^6 - 13308\,t_1w_1t_2{}^2x^3y^6 + 13056\,t_1{}^2t_2{}^2x^3y^6 + \tfrac{92452}{7}\,t_1w_1{}^4t_2x^3y^6 - \tfrac{252}{127}\,t_1w_3x^3y^6 +$$
$$\tfrac{278160}{6223}\,w_1{}^8x^3y^6 + \tfrac{63214}{7}\,t_1{}^4w_1w_2x^3y^6 - \tfrac{5869820}{6223}\,t_1w_1{}^4w_2x^3y^6 + \tfrac{430175}{49}\,t_1{}^2w_1{}^6x^3y^6 + 3390\,w_1{}^2t_2{}^2x^3y^6 +$$
$$126176\,t_1{}^3w_1{}^2t_2x^3y^6 - 126176\,t_1{}^4w_1t_2x^3y^6 + 23296\,t_1{}^8x^3y^6 - \tfrac{6022146}{6223}\,t_1w_1{}^7x^3y^6 + \tfrac{524450}{6223}\,w_1{}^5w_2x^3y^6 +$$
$$\tfrac{13056}{7}\,t_1w_1t_2w_2x^3y^6 - 3268\,t_1{}^5w_2x^3y^6 - 115808\,w_1t_1{}^7x^3y^6 - \tfrac{303322}{7}\,t_1{}^3w_1{}^5x^3y^6 + \tfrac{885505}{7}\,t_1{}^4w_1{}^4x^3y^6 -$$
$$\tfrac{8266}{7}\,w_1{}^5t_2x^3y^6 - \tfrac{412240}{7}\,t_1{}^2w_1{}^3t_2x^3y^6 + 45248\,t_1{}^5t_2x^3y^6 + \tfrac{3264}{49}\,t_1{}^2w_2{}^2x^3y^6 - \tfrac{408354}{6223}\,t_1w_1w_2{}^2x^3y^6 +$$
$$222896\,t_1{}^6w_1{}^2x^3y^6 + \tfrac{206120}{49}\,t_1{}^2w_1{}^3w_2x^3y^6 - 221262\,t_1{}^5w_1{}^3x^3y^6 - \tfrac{314698}{7}\,t_1{}^5w_1{}^3x^2y^7 - 92\,w_1t_3x^2y^7 +$$
$$\tfrac{46}{127}\,w_1w_3x^2y^7 + \tfrac{43959}{6223}\,w_1{}^8x^2y^7 - \tfrac{1329876}{6223}\,t_1w_1{}^4w_2x^2y^7 - \tfrac{5308}{7}\,t_1{}^5w_2x^2y^7 + \tfrac{28591}{6223}\,w_1{}^2w_2{}^2x^2y^7 +$$
$$3744\,t_1{}^2t_2{}^2x^2y^7 + \tfrac{79803}{49}\,t_1{}^2w_1{}^6x^2y^7 + \tfrac{176999}{7}\,t_1{}^4w_1{}^4x^2y^7 - \tfrac{1814}{7}\,w_1{}^5t_2x^2y^7 - \tfrac{1047784}{6223}\,t_1w_1{}^7x^2y^7 -$$
$$\tfrac{936}{7}\,w_1{}^2t_2w_2x^2y^7 + 184\,t_1t_3x^2y^7 + 4480\,t_1{}^8x^2y^7 - \tfrac{95960}{7}\,t_1{}^2w_1{}^3t_2x^2y^7 + \tfrac{115028}{6223}\,w_1{}^5w_2x^2y^7 -$$
$$\tfrac{116618}{6223}\,t_1w_1w_2{}^2x^2y^7 - \tfrac{14912}{7}\,t_1{}^3w_1{}^2w_2x^2y^7 + \tfrac{14958}{7}\,t_1{}^4w_1w_2x^2y^7 + 982\,w_1{}^2t_2{}^2x^2y^7 - \tfrac{92}{127}\,t_1w_3x^2y^7 +$$
$$45336\,t_1{}^6w_1{}^2x^2y^7 + 10432\,t_1{}^5t_2x^2y^7 - \tfrac{58834}{7}\,t_1{}^3w_1{}^5x^2y^7 + \tfrac{20948}{7}\,t_1w_1{}^4t_2x^2y^7 + 29824\,t_1{}^3w_1{}^2t_2x^2y^7 -$$
$$29824\,t_1{}^4w_1t_2x^2y^7 - 3836\,t_1w_1t_2{}^2x^2y^7 - \tfrac{3744}{7}\,t_1{}^2t_2w_2x^2y^7 + \tfrac{47980}{49}\,t_1{}^2w_1{}^3w_2x^2y^7 + \tfrac{3744}{7}\,t_1w_1t_2w_2x^2y^7 +$$
$$\tfrac{936}{49}\,t_1{}^2w_2{}^2x^2y^7 - 23136\,w_1t_1{}^7x^2y^7 + 104\,w_1{}^2t_2{}^2xy^8 + \tfrac{1160}{7}\,t_1{}^4w_1w_2xy^8 - \tfrac{1152}{7}\,t_1{}^3w_1{}^2w_2xy^8 - \tfrac{16}{127}\,t_1w_3xy^8 +$$
$$\tfrac{1488}{7}\,t_1w_1{}^4t_2xy^8 + 32\,t_1t_3xy^8 - 2304\,t_1{}^4w_1t_2xy^8 + 2304\,t_1{}^3w_1{}^2t_2xy^8 - \tfrac{120}{7}\,w_1{}^5t_2xy^8 + 384\,t_1{}^2t_2{}^2xy^8 -$$
$$400\,t_1w_1t_2{}^2xy^8 + \tfrac{4252}{49}\,t_1{}^2w_1{}^6xy^8 - \tfrac{7200}{7}\,t_1{}^2w_1{}^3t_2xy^8 + \tfrac{2852}{6223}\,w_1{}^2w_2{}^2xy^8 - \tfrac{384}{7}\,t_1{}^2t_2w_2xy^8 + \tfrac{10788}{7}\,t_1{}^4w_1{}^4xy^8 +$$
$$\tfrac{8}{127}\,w_1w_3xy^8 + \tfrac{7592}{6223}\,w_1{}^5w_2xy^8 + \tfrac{384}{7}\,t_1w_1t_2w_2xy^8 - 16\,w_1t_3xy^8 - 1408\,w_1t_1{}^7xy^8 - \tfrac{400}{7}\,t_1{}^5w_2xy^8 +$$
$$\tfrac{1665}{6223}\,w_1{}^8xy^8 - \tfrac{11800}{6223}\,t_1w_1w_2{}^2xy^8 - \tfrac{19736}{7}\,t_1{}^5w_1{}^3xy^8 + \tfrac{96}{49}\,t_1{}^2w_2{}^2xy^8 - \tfrac{3400}{7}\,t_1{}^3w_1{}^5xy^8 - \tfrac{96}{7}\,w_1{}^2t_2w_2xy^8 -$$
$$\tfrac{49304}{6223}\,t_1w_1{}^7xy^8 + 256\,t_1{}^8xy^8 + 2848\,t_1{}^6w_1{}^2xy^8 + \tfrac{3600}{49}\,t_1{}^2w_1{}^3w_2xy^8 - \tfrac{94432}{6223}\,t_1w_1{}^4w_2xy^8 + 768\,t_1{}^5t_2xy^8$$

Some values of the n-series for $F_{W,T}(x,y)$ at $p = 2$ are:

Omitted.

7.8. $F_{E(2)}(x,y)$ **at** $p=2$ **over** $\mathbb{Z}_{(2)}[w_1,w_2,\ldots,w_n]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> n:=2: # n is the height of the fgl
> lambda[0]:=1:
> w[0]:=p:
> L:=(m,n)->{ seq(p*lambda[j]=add(
  lambda[i]*w[j-i]^(p^i),i=0..j),j=m..n) };
> # the inputs m and n are the lower and upper
  # bounds for the subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> subs({seq(w[i]=0,i=n+1..6)},%);
> assign(expand(%));
> p:=2:
> m:=16: # calculate to O(m+1)
> q:=5: # the number of lambda_i's in the logarithm
  # so we know the logarithm to degree x^(p^q)
> f_En:=x->sum(lambda[i]*x^(p^i),i=0..q);
> f_En(x); # Johnson-Wilson Theory
> latex(%);
> log_En:=powpoly(f_En(x),x);
> exp_En:=reversion(log_En);
> simplify(tpsform(exp_En,x,m+1));
> latex(%);
> e_En:=x->convert(simplify(tpsform(exp_En,x,m+1)),
  polynom);
> F_En:=(x,y)->sort(simplify(mtaylor(subs(
  z=f_En(x)+f_En(y),e_En(z)),[x,y],m+1)),[x,y]);
> F_En(x,y);
```

The results of these computations are that the logarithm $\log_{E(2)}(x)$ at $p=2$ equals

$$x - 1/2\,w_1x^2 + (1/28\,{w_1}^3 - 1/14\,w_2)x^4 + (\tfrac{1}{3556}\,{w_1}^4w_2 - \tfrac{1}{7112}\,{w_1}^7 + \tfrac{1}{508}\,w_1{w_2}^2)x^8 + (-\tfrac{1}{33291272}\,{w_1}^9{w_2}^2 + \tfrac{1}{466077808}\,{w_1}^{15} - \tfrac{1}{233038904}\,{w_1}^{12}w_2 + \tfrac{1}{917476}\,{w_2}^5 - \tfrac{1}{1834952}\,{w_2}^4{w_1}^3)x^{16} + (\tfrac{1}{7881058826059888}\,{w_1}^{19}{w_2}^4 - \tfrac{1}{3940529413029944}\,{w_1}^{16}{w_2}^5 - \tfrac{1}{15272903697464}\,{w_2}^9{w_1}^4 + \tfrac{1}{3054580739492 8}\,{w_2}^8{w_1}^7 + \tfrac{1}{142984924415657968}\,{w_1}^{25}{w_2}^2 + \tfrac{1}{1000894470909605776}\,{w_1}^{28}w_2 - \tfrac{1}{2001788941819211552}\,{w_1}^{31} - \tfrac{1}{2181843385352}\,{w_2}^{10}w_1)x^{32}$$

and the formal group law $F_{E(2)}(x,y)$ at $p=2$ equals

$$x+y$$

$$+w_1xy$$

$$+{w_1}^2x^2y + {w_1}^2xy^2$$

$$+6/7\,{w_1}^3x^3y + 2/7\,w_2x^3y + \tfrac{16}{7}\,{w_1}^3x^2y^2 + 3/7\,w_2x^2y^2 + 2/7\,w_2xy^3 + 6/7\,{w_1}^3xy^3$$

$$+5/7\,{w_1}^4x^4y + 4/7\,w_1w_2x^4y + \tfrac{26}{7}\,{w_1}^4x^3y^2 + \tfrac{11}{7}\,w_1w_2x^3y^2 + \tfrac{11}{7}\,w_1w_2x^2y^3 + \tfrac{26}{7}\,{w_1}^4x^2y^3 + 4/7\,w_1w_2xy^4 + 5/7\,{w_1}^4xy^4$$

$$+6/7\,{w_1}^2w_2x^5y + 4/7\,{w_1}^5x^5y + 4\,{w_1}^2w_2x^4y^2 + 5\,{w_1}^5x^4y^2 + \tfrac{43}{7}\,{w_1}^2w_2x^3y^3 + \tfrac{66}{7}\,{w_1}^5x^3y^3 + 5\,{w_1}^5x^2y^4 + 4\,{w_1}^2w_2x^2y^4 + 4/7\,{w_1}^5xy^5 + 6/7\,{w_1}^2w_2xy^5$$

$$+\tfrac{4}{49}\,{w_2}^2x^6y + \tfrac{22}{49}\,{w_1}^6x^6y + \tfrac{52}{49}\,{w_1}^3w_2x^6y + \tfrac{295}{49}\,{w_1}^6x^5y^2 + \tfrac{381}{49}\,{w_1}^3w_2x^5y^2 + \tfrac{18}{49}\,{w_2}^2x^5y^2 + \tfrac{876}{49}\,{w_1}^3w_2x^4y^3 + \tfrac{34}{49}\,{w_2}^2x^4y^3 + \tfrac{901}{49}\,{w_1}^6x^4y^3 + \tfrac{876}{49}\,{w_1}^3w_2x^3y^4 + \tfrac{34}{49}\,{w_2}^2x^3y^4 + \tfrac{901}{49}\,{w_1}^6x^3y^4 + \tfrac{295}{49}\,{w_1}^6x^2y^5 + \tfrac{18}{49}\,{w_2}^2x^2y^5 + \tfrac{381}{49}\,{w_1}^3w_2x^2y^5 + \tfrac{52}{49}\,{w_1}^3w_2xy^6 + \tfrac{4}{49}\,{w_2}^2xy^6 + \tfrac{22}{49}\,{w_1}^6xy^6$$

$$+\tfrac{2166}{6223}\,{w_1}^7x^7y + \tfrac{7352}{6223}\,{w_1}^4w_2x^7y + \tfrac{1426}{6223}\,w_1{w_2}^2x^7y + \tfrac{79326}{6223}\,{w_1}^4w_2x^6y^2 + \tfrac{41744}{6223}\,{w_1}^7x^6y^2 + \tfrac{10071}{6223}\,w_1{w_2}^2x^6y^2 + \tfrac{26238}{6223}\,w_1{w_2}^2x^5y^3 + \tfrac{261903}{6223}\,{w_1}^4w_2x^5y^3 + \tfrac{189025}{6223}\,{w_1}^7x^5y^3 + \tfrac{35274}{6223}\,w_1{w_2}^2x^4y^4 + \tfrac{303242}{6223}\,{w_1}^7x^4y^4 + \tfrac{378909}{6223}\,{w_1}^4w_2x^4y^4 + \tfrac{26238}{6223}\,w_1{w_2}^2x^3y^5 + \tfrac{261903}{6223}\,{w_1}^4w_2x^3y^5 + \tfrac{189025}{6223}\,{w_1}^7x^3y^5 + \tfrac{41744}{6223}\,{w_1}^7x^2y^6 + \tfrac{79326}{6223}\,{w_1}^4w_2x^2y^6 + \tfrac{10071}{6223}\,w_1{w_2}^2x^2y^6 + \tfrac{1426}{6223}\,w_1{w_2}^2xy^7 + \tfrac{7352}{6223}\,{w_1}^4w_2xy^7 + \tfrac{2166}{6223}\,{w_1}^7xy^7$$

$$+\tfrac{1665}{6223}\,{w_1}^8x^8y + \tfrac{2852}{6223}\,{w_1}^2{w_2}^2x^8y + \tfrac{7592}{6223}\,{w_1}^5w_2x^8y + \tfrac{28591}{6223}\,{w_1}^2{w_2}^2x^7y^2 + \tfrac{43959}{6223}\,{w_1}^8x^7y^2 + \tfrac{115028}{6223}\,{w_1}^5w_2x^7y^2 + \tfrac{524450}{6223}\,{w_1}^5w_2x^6y^3 + \tfrac{100545}{6223}\,{w_1}^2{w_2}^2x^6y^3 + \tfrac{278160}{6223}\,{w_1}^8x^6y^3 + \tfrac{178097}{6223}\,{w_1}^2{w_2}^2x^5y^4 + \tfrac{653421}{6223}\,{w_1}^8x^5y^4 + \tfrac{1051929}{6223}\,{w_1}^5w_2x^5y^4 + \tfrac{178097}{6223}\,{w_1}^2{w_2}^2x^4y^5 + \tfrac{1051929}{6223}\,{w_1}^5w_2x^4y^5 + \tfrac{653421}{6223}\,{w_1}^8x^4y^5 + \tfrac{100545}{6223}\,{w_1}^2{w_2}^2x^3y^6 + \tfrac{278160}{6223}\,{w_1}^8x^3y^6 + \tfrac{524450}{6223}\,{w_1}^5w_2x^3y^6 + \tfrac{43959}{6223}\,{w_1}^8x^2y^7 + \tfrac{115028}{6223}\,{w_1}^5w_2x^2y^7 + \tfrac{28591}{6223}\,{w_1}^2{w_2}^2x^2y^7 + \tfrac{7592}{6223}\,{w_1}^5w_2xy^8 + \tfrac{1665}{6223}\,{w_1}^8xy^8 + \tfrac{2852}{6223}\,{w_1}^2{w_2}^2xy^8$$

$$+\tfrac{8}{343}\,{w_2}^3x^9y + \tfrac{52030}{43561}\,{w_1}^6w_2x^9y + \tfrac{8910}{43561}\,{w_1}^9x^9y + \tfrac{31978}{43561}\,{w_1}^3{w_2}^2x^9y + \tfrac{72}{343}\,{w_2}^3x^8y^2 + \tfrac{437840}{43561}\,{w_1}^3{w_2}^2x^8y^2 + \tfrac{310392}{43561}\,{w_1}^9x^8y^2 + \tfrac{1065776}{43561}\,{w_1}^6w_2x^8y^2 + \tfrac{260}{343}\,{w_2}^3x^7y^3 + \tfrac{6489104}{43561}\,{w_1}^6w_2x^7y^3 + \tfrac{2629325}{43561}\,{w_1}^9x^7y^3 + \tfrac{2036337}{43561}\,{w_1}^3{w_2}^2x^7y^3 + \tfrac{8522341}{43561}\,{w_1}^9x^6y^4 + \tfrac{523}{343}\,{w_2}^3x^6y^4 + \tfrac{4678215}{43561}\,{w_1}^3{w_2}^2x^6y^4 + \tfrac{17427944}{43561}\,{w_1}^6w_2x^6y^4 + \tfrac{23899418}{43561}\,{w_1}^6w_2x^5y^5 + \tfrac{6095207}{43561}\,{w_1}^3{w_2}^2x^5y^5 + \tfrac{12430100}{43561}\,{w_1}^9x^5y^5 + \tfrac{654}{343}\,{w_2}^3x^5y^5 + \tfrac{523}{343}\,{w_2}^3x^4y^6 + \tfrac{17427944}{43561}\,{w_1}^6w_2x^4y^6 + \tfrac{4678215}{43561}\,{w_1}^3{w_2}^2x^4y^6 + \tfrac{8522341}{43561}\,{w_1}^9x^4y^6 + \tfrac{6489104}{43561}\,{w_1}^6w_2x^3y^7 + \tfrac{260}{343}\,{w_2}^3x^3y^7 + \tfrac{2036337}{43561}\,{w_1}^3{w_2}^2x^3y^7 + \tfrac{2629325}{43561}\,{w_1}^9x^3y^7 + \tfrac{437840}{43561}\,{w_1}^3{w_2}^2x^2y^8 + \tfrac{72}{343}\,{w_2}^3x^2y^8 + \tfrac{1065776}{43561}\,{w_1}^6w_2x^2y^8 + \tfrac{310392}{43561}\,{w_1}^9x^2y^8 + \tfrac{52030}{43561}\,{w_1}^6w_2xy^9 + \tfrac{8}{343}\,{w_2}^3xy^9 + \tfrac{8910}{43561}\,{w_1}^9xy^9 + \tfrac{31978}{43561}\,{w_1}^3{w_2}^2xy^9$$

$$+\tfrac{44640}{43561}\,{w_1}^4{w_2}^2x^{10}y + \tfrac{3672}{43561}\,w_1{w_2}^3x^{10}y + \tfrac{48940}{43561}\,{w_1}^7w_2x^{10}y + \tfrac{6786}{43561}\,{w_1}^{10}x^{10}y + \tfrac{808011}{43561}\,{w_1}^4{w_2}^2x^9y^2 + \tfrac{1314435}{43561}\,{w_1}^7w_2x^9y^2 + \tfrac{47352}{43561}\,w_1{w_2}^3x^9y^2 + \tfrac{302690}{43561}\,{w_1}^{10}x^9y^2 + \tfrac{99212}{889}\,{w_1}^4{w_2}^2x^8y^3 + \tfrac{32044}{6223}\,w_1{w_2}^3x^8y^3 + \tfrac{1484628}{6223}\,{w_1}^7w_2x^8y^3 + \tfrac{474526}{6223}\,{w_1}^{10}x^8y^3 + \tfrac{14241679}{43561}\,{w_1}^{10}x^7y^4 + \tfrac{567297}{43561}\,w_1{w_2}^3x^7y^4 + \tfrac{14247855}{43561}\,{w_1}^4{w_2}^2x^7y^4 + \tfrac{36308759}{43561}\,{w_1}^7w_2x^7y^4 + \tfrac{3381473}{6223}\,{w_1}^4{w_2}^2x^6y^5 + \tfrac{1342190}{889}\,{w_1}^7w_2x^6y^5 + \tfrac{125647}{6223}\,w_1{w_2}^3x^6y^5 + \tfrac{4071629}{6223}\,{w_1}^{10}x^6y^5 + \tfrac{125647}{6223}\,w_1{w_2}^3x^5y^6 + \tfrac{4071629}{6223}\,{w_1}^{10}x^5y^6 + \tfrac{1342190}{889}\,{w_1}^7w_2x^5y^6 + \tfrac{3381473}{6223}\,{w_1}^4{w_2}^2x^5y^6 + \tfrac{14241679}{43561}\,{w_1}^{10}x^4y^7 + \tfrac{14247855}{43561}\,{w_1}^4{w_2}^2x^4y^7 + \tfrac{567297}{43561}\,w_1{w_2}^3x^4y^7 + \tfrac{36308759}{43561}\,{w_1}^7w_2x^4y^7 + \tfrac{99212}{889}\,{w_1}^4{w_2}^2x^3y^8 + \tfrac{474526}{6223}\,{w_1}^{10}x^3y^8 + \tfrac{32044}{6223}\,w_1{w_2}^3x^3y^8 + \tfrac{1484628}{6223}\,{w_1}^7w_2x^3y^8 + \tfrac{302690}{43561}\,{w_1}^{10}x^2y^9 + \tfrac{808011}{43561}\,{w_1}^4{w_2}^2x^2y^9 + \tfrac{47352}{43561}\,w_1{w_2}^3x^2y^9 + \tfrac{1314435}{43561}\,{w_1}^7w_2x^2y^9 + \tfrac{48940}{43561}\,{w_1}^7w_2xy^{10} + \tfrac{44640}{43561}\,{w_1}^4{w_2}^2xy^{10} + \tfrac{6786}{43561}\,{w_1}^{10}xy^{10} + \tfrac{3672}{43561}\,w_1{w_2}^3xy^{10}$$

$$+\tfrac{5156}{43561}\,{w_1}^{11}x^{11}y + \tfrac{44636}{43561}\,{w_1}^8w_2x^{11}y + \tfrac{56426}{43561}\,{w_1}^5{w_2}^2x^{11}y + \tfrac{8984}{43561}\,{w_1}^2{w_2}^3x^{11}y + \tfrac{10371}{343}\,{w_1}^5{w_2}^2x^{10}y^2 + \tfrac{287271}{43561}\,{w_1}^{11}x^{10}y^2 + \tfrac{1532536}{43561}\,{w_1}^8w_2x^{10}y^2 + \tfrac{152868}{43561}\,{w_1}^2{w_2}^3x^{10}y^2 + \tfrac{15369299}{43561}\,{w_1}^8w_2x^9y^3 + \tfrac{921640}{43561}\,{w_1}^2{w_2}^3x^9y^3 + \tfrac{10048631}{43561}\,{w_1}^5{w_2}^2x^9y^3 + \tfrac{3978654}{43561}\,{w_1}^{11}x^9y^3 + \tfrac{68187074}{43561}\,{w_1}^8w_2x^8y^4 + \tfrac{2890247}{43561}\,{w_1}^2{w_2}^3x^8y^4 + \tfrac{21859212}{43561}\,{w_1}^{11}x^8y^4 + \tfrac{36964465}{43561}\,{w_1}^5{w_2}^2x^8y^4 + \tfrac{76941264}{43561}\,{w_1}^5{w_2}^2x^7y^5 + \tfrac{158500527}{43561}\,{w_1}^8w_2x^7y^5 + \tfrac{57510694}{43561}\,{w_1}^{11}x^7y^5 + \tfrac{5492099}{43561}\,{w_1}^2{w_2}^3x^7y^5 + \tfrac{97525934}{43561}\,{w_1}^5{w_2}^2x^6y^6 + \tfrac{78755046}{43561}\,{w_1}^{11}x^6y^6 + \tfrac{208387871}{43561}\,{w_1}^8w_2x^6y^6 + \tfrac{6759509}{43561}\,{w_1}^2{w_2}^3x^6y^6 + \tfrac{76941264}{43561}\,{w_1}^5{w_2}^2x^5y^7 + \tfrac{158500527}{43561}\,{w_1}^8w_2x^5y^7 + \tfrac{5492099}{43561}\,{w_1}^2{w_2}^3x^5y^7 + \tfrac{57510694}{43561}\,{w_1}^{11}x^5y^7 + \tfrac{2890247}{43561}\,{w_1}^2{w_2}^3x^4y^8 + \tfrac{36964465}{43561}\,{w_1}^5{w_2}^2x^4y^8 + \tfrac{21859212}{43561}\,{w_1}^{11}x^4y^8 + \tfrac{68187074}{43561}\,{w_1}^8w_2x^4y^8 + \tfrac{3978654}{43561}\,{w_1}^{11}x^3y^9 + \tfrac{15369299}{43561}\,{w_1}^8w_2x^3y^9 + \tfrac{921640}{43561}\,{w_1}^2{w_2}^3x^3y^9 +$$

$\frac{10048631}{43561}\,w_1{}^5w_2{}^2x^3y^9+\frac{1532536}{43561}\,w_1{}^8w_2x^2y^{10}+\frac{152868}{43561}\,w_1{}^2w_2{}^3x^2y^{10}+\frac{10371}{343}\,w_1{}^5w_2{}^2x^2y^{10}+$
$\frac{287271}{43561}\,w_1{}^{11}x^2y^{10}+\frac{56426}{43561}\,w_1{}^5w_2{}^2xy^{11}+\frac{5156}{43561}\,w_1{}^{11}xy^{11}+\frac{44636}{43561}\,w_1{}^8w_2xy^{11}+\frac{8984}{43561}\,w_1{}^2w_2{}^3xy^{11}$
$+\frac{278144}{304927}\,w_1{}^9w_2x^{12}y+\frac{27378}{304927}\,w_1{}^{12}x^{12}y+\frac{463732}{304927}\,w_1{}^6w_2{}^2x^{12}y+\frac{16}{2401}\,w_2{}^4x^{12}y+\frac{121712}{304927}\,w_1{}^3w_2{}^3x^{12}y+$
$\frac{11949566}{304927}\,w_1{}^9w_2x^{11}y^2+\frac{2647676}{304927}\,w_1{}^3w_2{}^3x^{11}y^2+\frac{240}{2401}\,w_2{}^4x^{11}y^2+\frac{1866488}{304927}\,w_1{}^{12}x^{11}y^2+\frac{13669169}{304927}\,w_1{}^6w_2{}^2x^{11}y^2+$
$\frac{2848456}{43561}\,w_1{}^3w_2{}^3x^{10}y^3+\frac{200}{343}\,w_2{}^4x^{10}y^3+\frac{4562277}{43561}\,w_1{}^{12}x^{10}y^3+\frac{21288528}{43561}\,w_1{}^9w_2x^{10}y^3+\frac{18557831}{43561}\,w_1{}^6w_2{}^2x^{10}y^3+$
$\frac{590614669}{304927}\,w_1{}^6w_2{}^2x^9y^4+\frac{4546}{2401}\,w_2{}^4x^9y^4+\frac{219306463}{304927}\,w_1{}^{12}x^9y^4+\frac{822654058}{304927}\,w_1{}^9w_2x^9y^4+\frac{76675320}{304927}\,w_1{}^3w_2{}^3x^9y^4+$
$\frac{2397650088}{304927}\,w_1{}^9w_2x^8y^5+\frac{734781585}{304927}\,w_1{}^{12}x^8y^5+\frac{9462}{2401}\,w_2{}^4x^8y^5+\frac{176837553}{304927}\,w_1{}^3w_2{}^3x^8y^5+$
$\frac{1516653051}{304927}\,w_1{}^6w_2{}^2x^8y^5+\frac{264258956}{304927}\,w_1{}^3w_2{}^3x^7y^6+\frac{13470}{2401}\,w_2{}^4x^7y^6+\frac{2387803323}{304927}\,w_1{}^6w_2{}^2x^7y^6+$
$\frac{1318866305}{304927}\,w_1{}^{12}x^7y^6+\frac{4019379251}{304927}\,w_1{}^9w_2x^7y^6+\frac{13470}{2401}\,w_2{}^4x^6y^7+\frac{264258956}{304927}\,w_1{}^3w_2{}^3x^6y^7+$
$\frac{2387803323}{304927}\,w_1{}^6w_2{}^2x^6y^7+\frac{1318866305}{304927}\,w_1{}^{12}x^6y^7+\frac{4019379251}{304927}\,w_1{}^9w_2x^6y^7+\frac{1516653051}{304927}\,w_1{}^6w_2{}^2x^5y^8+$
$\frac{2397650088}{304927}\,w_1{}^9w_2x^5y^8+\frac{9462}{2401}\,w_2{}^4x^5y^8+\frac{176837553}{304927}\,w_1{}^3w_2{}^3x^5y^8+\frac{734781585}{304927}\,w_1{}^{12}x^5y^8+\frac{4546}{2401}\,w_2{}^4x^4y^9+$
$\frac{76675320}{304927}\,w_1{}^3w_2{}^3x^4y^9+\frac{219306463}{304927}\,w_1{}^{12}x^4y^9+\frac{590614669}{304927}\,w_1{}^6w_2{}^2x^4y^9+\frac{822654058}{304927}\,w_1{}^9w_2x^4y^9+$
$\frac{2848456}{43561}\,w_1{}^3w_2{}^3x^3y^{10}+\frac{18557831}{43561}\,w_1{}^6w_2{}^2x^3y^{10}+\frac{4562277}{43561}\,w_1{}^{12}x^3y^{10}+\frac{200}{343}\,w_2{}^4x^3y^{10}+\frac{21288528}{43561}\,w_1{}^9w_2x^3y^{10}+$
$\frac{11949566}{304927}\,w_1{}^9w_2x^2y^{11}+\frac{13669169}{304927}\,w_1{}^6w_2{}^2x^2y^{11}+\frac{240}{2401}\,w_2{}^4x^2y^{11}+\frac{1866488}{304927}\,w_1{}^{12}x^2y^{11}+\frac{2647676}{304927}\,w_1{}^3w_2{}^3x^2y^{11}+$
$\frac{121712}{304927}\,w_1{}^3w_2{}^3xy^{12}+\frac{27378}{304927}\,w_1{}^{12}xy^{12}+\frac{16}{2401}\,w_2{}^4xy^{12}+\frac{463732}{304927}\,w_1{}^6w_2{}^2xy^{12}+\frac{278144}{304927}\,w_1{}^9w_2xy^{12}$
$+\frac{202168}{304927}\,w_1{}^4w_2{}^3x^{13}y+\frac{8984}{304927}\,w_1w_2{}^4x^{13}y+\frac{242832}{304927}\,w_1{}^{10}w_2x^{13}y+\frac{514116}{304927}\,w_1{}^7w_2{}^2x^{13}y+\frac{20746}{304927}\,w_1{}^{13}x^{13}y+$
$\frac{181816}{304927}\,w_1w_2{}^4x^{12}y^2+\frac{18797664}{304927}\,w_1{}^7w_2{}^2x^{12}y^2+\frac{12817456}{304927}\,w_1{}^{10}w_2x^{12}y^2+\frac{5492848}{304927}\,w_1{}^4w_2{}^3x^{12}y^2+$
$\frac{1700712}{304927}\,w_1{}^{13}x^{12}y^2+\frac{50835880}{304927}\,w_1{}^4w_2{}^3x^{11}y^3+\frac{35313900}{304927}\,w_1{}^{13}x^{11}y^3+\frac{195421430}{304927}\,w_1{}^{10}w_2x^{11}y^3+$
$\frac{1342220}{304927}\,w_1w_2{}^4x^{11}y^3+\frac{219063625}{304927}\,w_1{}^7w_2{}^2x^{11}y^3+\frac{297051474}{304927}\,w_1{}^{13}x^{10}y^4+\frac{5315889}{304927}\,w_1w_2{}^4x^{10}y^4+$
$\frac{237034970}{304927}\,w_1{}^4w_2{}^3x^{10}y^4+\frac{1319369801}{304927}\,w_1{}^{10}w_2x^{10}y^4+\frac{1213718762}{304927}\,w_1{}^7w_2{}^2x^{10}y^4+\frac{4729655067}{304927}\,w_1{}^{10}w_2x^9y^5+$
$\frac{1236526889}{304927}\,w_1{}^{13}x^9y^5+\frac{3792004652}{304927}\,w_1{}^7w_2{}^2x^9y^5+\frac{657281396}{304927}\,w_1{}^4w_2{}^3x^9y^5+\frac{13220458}{304927}\,w_1w_2{}^4x^9y^5+$
$\frac{9872179899}{304927}\,w_1{}^{10}w_2x^8y^6+\frac{22291974}{304927}\,w_1w_2{}^4x^8y^6+\frac{2816649730}{304927}\,w_1{}^{13}x^8y^6+\frac{7295018462}{304927}\,w_1{}^7w_2{}^2x^8y^6+$
$\frac{1179271006}{304927}\,w_1{}^4w_2{}^3x^8y^6+\frac{526814102}{43561}\,w_1{}^{13}x^7y^7+\frac{4160263}{889}\,w_1{}^4w_2{}^3x^7y^7+\frac{1290260142}{43561}\,w_1{}^7w_2{}^2x^7y^7+$
$\frac{3776540}{43561}\,w_1w_2{}^4x^7y^7+\frac{1794022606}{43561}\,w_1{}^{10}w_2x^7y^7+\frac{1179271006}{304927}\,w_1{}^4w_2{}^3x^6y^8+\frac{2816649730}{304927}\,w_1{}^{13}x^6y^8+$
$\frac{22291974}{304927}\,w_1w_2{}^4x^6y^8+\frac{9872179899}{304927}\,w_1{}^{10}w_2x^6y^8+\frac{7295018462}{304927}\,w_1{}^7w_2{}^2x^6y^8+\frac{4729655067}{304927}\,w_1{}^{10}w_2x^5y^9+$
$\frac{1236526889}{304927}\,w_1{}^{13}x^5y^9+\frac{13220458}{304927}\,w_1w_2{}^4x^5y^9+\frac{3792004652}{304927}\,w_1{}^7w_2{}^2x^5y^9+\frac{657281396}{304927}\,w_1{}^4w_2{}^3x^5y^9+$
$\frac{237034970}{304927}\,w_1{}^4w_2{}^3x^4y^{10}+\frac{5315889}{304927}\,w_1w_2{}^4x^4y^{10}+\frac{1213718762}{304927}\,w_1{}^7w_2{}^2x^4y^{10}+\frac{297051474}{304927}\,w_1{}^{13}x^4y^{10}+$
$\frac{1319369801}{304927}\,w_1{}^{10}w_2x^4y^{10}+\frac{219063625}{304927}\,w_1{}^7w_2{}^2x^3y^{11}+\frac{50835880}{304927}\,w_1{}^4w_2{}^3x^3y^{11}+\frac{35313900}{304927}\,w_1{}^{13}x^3y^{11}+$
$\frac{195421430}{304927}\,w_1{}^{10}w_2x^3y^{11}+\frac{1342220}{304927}\,w_1w_2{}^4x^3y^{11}+\frac{12817456}{304927}\,w_1{}^{10}w_2x^2y^{12}+\frac{18797664}{304927}\,w_1{}^7w_2{}^2x^2y^{12}+$
$\frac{181816}{304927}\,w_1w_2{}^4x^2y^{12}+\frac{5492848}{304927}\,w_1{}^4w_2{}^3x^2y^{12}+\frac{1700712}{304927}\,w_1{}^{13}x^2y^{12}+\frac{514116}{304927}\,w_1{}^7w_2{}^2xy^{13}+\frac{8984}{304927}\,w_1w_2{}^4xy^{13}+$
$\frac{242832}{304927}\,w_1{}^{10}w_2xy^{13}+\frac{20746}{304927}\,w_1{}^{13}xy^{13}+\frac{202168}{304927}\,w_1{}^4w_2{}^3xy^{13}$
$+\frac{3283156}{38725729}\,w_1{}^2w_2{}^4x^{14}y+\frac{38126112}{38725729}\,w_1{}^5w_2{}^3x^{14}y+\frac{1995092}{38725729}\,w_1{}^{14}x^{14}y+\frac{26501656}{38725729}\,w_1{}^{11}w_2x^{14}y+$
$\frac{69158960}{38725729}\,w_1{}^8w_2{}^2x^{14}y+\frac{1691634132}{38725729}\,w_1{}^{11}w_2x^{13}y^2+\frac{3088275354}{38725729}\,w_1{}^8w_2{}^2x^{13}y^2+\frac{1271693020}{38725729}\,w_1{}^5w_2{}^3x^{13}y^2+$
$\frac{193764859}{38725729}\,w_1{}^{14}x^{13}y^2+\frac{83914238}{38725729}\,w_1{}^2w_2{}^4x^{13}y^2+\frac{31073161752}{38725729}\,w_1{}^{11}w_2x^{12}y^3+\frac{43526290120}{38725729}\,w_1{}^8w_2{}^2x^{12}y^3+$
$\frac{4809129924}{38725729}\,w_1{}^{14}x^{12}y^3+\frac{760671346}{38725729}\,w_1{}^2w_2{}^4x^{12}y^3+\frac{14264836892}{38725729}\,w_1{}^5w_2{}^3x^{12}y^3+\frac{252786887672}{38725729}\,w_1{}^{11}w_2x^{11}y^4+$
$\frac{79789462601}{38725729}\,w_1{}^5w_2{}^3x^{11}y^4+\frac{2901494967367}{38725729}\,w_1{}^8w_2{}^2x^{11}y^4+\frac{48730958468}{38725729}\,w_1{}^{14}x^{11}y^4+\frac{3618525931}{38725729}\,w_1{}^2w_2{}^4x^{11}y^4+$
$\frac{247079225496}{38725729}\,w_1{}^{14}x^{10}y^5+\frac{10652140509}{38725729}\,w_1{}^2w_2{}^4x^{10}y^5+\frac{1089163516918}{38725729}\,w_1{}^8w_2{}^2x^{10}y^5+\frac{1096683525289}{38725729}\,w_1{}^{11}w_2x^{10}y^5+$
$\frac{263598540080}{38725729}\,w_1{}^5w_2{}^3x^{10}y^5+\frac{21110665916}{38725729}\,w_1{}^2w_2{}^4x^9y^6+\frac{2796047383106}{38725729}\,w_1{}^{11}w_2x^9y^6+\frac{562305908093}{38725729}\,w_1{}^5w_2{}^3x^9y^6+$
$\frac{696696536601}{38725729}\,w_1{}^{14}x^9y^6+\frac{2525005679076}{38725729}\,w_1{}^8w_2{}^2x^9y^6+\frac{812579032175}{38725729}\,w_1{}^5w_2{}^3x^8y^7+\frac{4413207497519}{38725729}\,w_1{}^{11}w_2x^8y^7+$
$\frac{3801405863235}{38725729}\,w_1{}^8w_2{}^2x^8y^7+\frac{29434788988}{38725729}\,w_1{}^2w_2{}^4x^8y^7+\frac{1155529064674}{38725729}\,w_1{}^{14}x^8y^7+\frac{1155529064674}{38725729}\,w_1{}^{14}x^7y^8+$

$\frac{812579032175}{38725729}\,w_1{}^5w_2{}^3x^7y^8+\frac{29434788988}{38725729}\,w_1{}^2w_2{}^4x^7y^8+\frac{4413207497519}{38725729}\,w_1{}^{11}w_2x^7y^8+\frac{3801405863235}{38725729}\,w_1{}^8w_2{}^2x^7y^8+$
$\frac{2525005679076}{38725729}\,w_1{}^8w_2{}^2x^6y^9+\frac{562305908093}{38725729}\,w_1{}^5w_2{}^3x^6y^9+\frac{2796047383106}{38725729}\,w_1{}^{11}w_2x^6y^9+$
$\frac{21110665916}{38725729}\,w_1{}^2w_2{}^4x^6y^9+\frac{696696536601}{38725729}\,w_1{}^{14}x^6y^9+\frac{263598540080}{38725729}\,w_1{}^5w_2{}^3x^5y^{10}+\frac{10652140509}{38725729}\,w_1{}^2w_2{}^4x^5y^{10}+$
$\frac{1089163516918}{38725729}\,w_1{}^8w_2{}^2x^5y^{10}+\frac{247079225496}{38725729}\,w_1{}^{14}x^5y^{10}+\frac{1096683525289}{38725729}\,w_1{}^{11}w_2x^5y^{10}+$
$\frac{252786887672}{38725729}\,w_1{}^{11}w_2x^4y^{11}+\frac{79789462601}{38725729}\,w_1{}^5w_2{}^3x^4y^{11}+\frac{48730958468}{38725729}\,w_1{}^{14}x^4y^{11}+\frac{290149497367}{38725729}\,w_1{}^8w_2{}^2x^4y^{11}+$
$\frac{3618525931}{38725729}\,w_1{}^2w_2{}^4x^4y^{11}+\frac{43526290120}{38725729}\,w_1{}^8w_2{}^2x^3y^{12}+\frac{760671346}{38725729}\,w_1{}^2w_2{}^4x^3y^{12}+\frac{14264836892}{38725729}\,w_1{}^5w_2{}^3x^3y^{12}+$
$\frac{31073161752}{38725729}\,w_1{}^{11}w_2x^3y^{12}+\frac{4809129924}{38725729}\,w_1{}^{14}x^3y^{12}+\frac{3088275354}{38725729}\,w_1{}^8w_2{}^2x^2y^{13}+\frac{83914238}{38725729}\,w_1{}^2w_2{}^4x^2y^{13}+$
$\frac{193764859}{38725729}\,w_1{}^{14}x^2y^{13}+\frac{1271693020}{38725729}\,w_1{}^5w_2{}^3x^2y^{13}+\frac{1691634132}{38725729}\,w_1{}^{11}w_2x^2y^{13}+\frac{1995092}{38725729}\,w_1{}^{14}xy^{14}+$
$\frac{38126112}{38725729}\,w_1{}^5w_2{}^3xy^{14}+\frac{3283156}{38725729}\,w_1{}^2w_2{}^4xy^{14}+\frac{69158960}{38725729}\,w_1{}^8w_2{}^2xy^{14}+\frac{26501656}{38725729}\,w_1{}^{11}w_2xy^{14}$
$\frac{2312980421048}{1268925962143}\,w_1{}^9w_2{}^2x^{15}y+\frac{241936397618}{1268925962143}\,w_2{}^4w_1{}^3x^{15}y+\frac{736556157996}{1268925962143}\,w_1{}^{12}w_2x^{15}y+\frac{363725680}{271080103}\,w_1{}^6w_2{}^3x^{15}y+$
$\frac{148420}{78673567}\,w_2{}^5x^{15}y+\frac{49479170302}{1268925962143}\,w_1{}^{15}x^{15}y+\frac{5620666892333}{1268925962143}\,w_1{}^{15}x^{14}y^2+\frac{7602228332239}{1268925962143}\,w_2{}^4w_1{}^3x^{14}y^2+$
$\frac{3360030}{78673567}\,w_2{}^5x^{14}y^2+\frac{124435082224580}{1268925962143}\,w_1{}^9w_2{}^2x^{14}y^2+\frac{56075509042474}{1268925962143}\,w_1{}^{12}w_2x^{14}y^2+\frac{14683796688}{271080103}\,w_1{}^6w_2{}^3x^{14}y^2+$
$\frac{299312970808770}{181275137449}\,w_1{}^9w_2{}^2x^{13}y^3+\frac{28175244260}{38725729}\,w_1{}^6w_2{}^3x^{13}y^3+\frac{175025854319032}{181275137449}\,w_1{}^{12}w_2x^{13}y^3+$
$\frac{11882651685818}{181275137449}\,w_2{}^4w_1{}^3x^{13}y^3+\frac{4112420}{11239081}\,w_2{}^5x^{13}y^3+\frac{23511966417911}{181275137449}\,w_1{}^{15}x^{13}y^3+\frac{1310121312403}{271080103}\,w_1{}^6w_2{}^3x^{12}y^4+$
$\frac{11856393433816678}{1268925962143}\,w_1{}^{12}w_2x^{12}y^4+\frac{136117207}{78673567}\,w_2{}^5x^{12}y^4+\frac{1980805032692027}{1268925962143}\,w_1{}^{15}x^{12}y^4+$
$\frac{16612281320972317}{1268925962143}\,w_1{}^9w_2{}^2x^{12}y^4+\frac{470212147641686}{1268925962143}\,w_2{}^4w_1{}^3x^{12}y^4+\frac{1626352602776045}{1268925962143}\,w_2{}^4w_1{}^3x^{11}y^5+$
$\frac{414905040}{78673567}\,w_2{}^5x^{11}y^5+\frac{120351547022366 58}{1268925962143}\,w_1{}^{15}x^{11}y^5+\frac{74081594937329898}{1268925962143}\,w_1{}^9w_2{}^2x^{11}y^5+$
$\frac{61395279661865740}{1268925962143}\,w_1{}^{12}w_2x^{11}y^5+\frac{5111618506255}{271080103}\,w_1{}^6w_2{}^3x^{11}y^5+\frac{126092300}{11239081}\,w_2{}^5x^{10}y^6+$
$\frac{5883392428733185}{181275137449}\,w_1{}^{15}x^{10}y^6+\frac{537589079337920}{181275137449}\,w_2{}^4w_1{}^3x^{10}y^6+\frac{1835757128970}{38725729}\,w_1{}^6w_2{}^3x^{10}y^6+$
$\frac{26882578524225708}{181275137449}\,w_1{}^{12}w_2x^{10}y^6+\frac{4172860717577072}{1268925962143}\,w_1{}^9w_2{}^2x^{10}y^6+\frac{368893612775985349}{1268925962143}\,w_1{}^9w_2{}^2x^9y^7+$
$\frac{3613485479903228 66}{1268925962143}\,w_1{}^{12}w_2x^9y^7+\frac{6121125659917274}{1268925962143}\,w_2{}^4w_1{}^3x^9y^7+\frac{1368305140}{78673567}\,w_2{}^5x^9y^7+$
$\frac{21938979208009}{271080103}\,w_1{}^6w_2{}^3x^9y^7+\frac{84374449957477374}{1268925962143}\,w_1{}^{15}x^9y^7+\frac{447759452645748514}{1268925962143}\,w_1{}^{12}w_2x^8y^8+$
$\frac{106812093700885072}{1268925962143}\,w_1{}^{15}x^8y^8+\frac{26146198670796}{271080103}\,w_1{}^6w_2{}^3x^8y^8+\frac{447730739753636011}{1268925962143}\,w_1{}^9w_2{}^2x^8y^8+$
$\frac{1580046918}{78673567}\,w_2{}^5x^8y^8+\frac{7179913517213271}{1268925962143}\,w_2{}^4w_1{}^3x^8y^8+\frac{361348547990322866}{1268925962143}\,w_1{}^{12}w_2x^7y^9+\frac{1368305140}{78673567}\,w_2{}^5x^7y^9+$
$\frac{84374449957477374}{1268925962143}\,w_1{}^{15}x^7y^9+\frac{21938979208009}{271080103}\,w_1{}^6w_2{}^3x^7y^9+\frac{6121125659917274}{1268925962143}\,w_2{}^4w_1{}^3x^7y^9+$
$\frac{36889361277598534 9}{1268925962143}\,w_1{}^9w_2{}^2x^7y^9+\frac{4172860717577072}{25896448207}\,w_1{}^9w_2{}^2x^6y^{10}+\frac{126092300}{11239081}\,w_2{}^5x^6y^{10}+$
$\frac{26882578524225708}{181275137449}\,w_1{}^{12}w_2x^6y^{10}+\frac{1835757128970}{38725729}\,w_1{}^6w_2{}^3x^6y^{10}+\frac{537589079337920}{181275137449}\,w_2{}^4w_1{}^3x^6y^{10}+$
$\frac{5883392428733185}{181275137449}\,w_1{}^{15}x^6y^{10}+\frac{61395279661865740}{1268925962143}\,w_1{}^{12}w_2x^5y^{11}+\frac{414905040}{78673567}\,w_2{}^5x^5y^{11}+$
$\frac{120351547022366 58}{1268925962143}\,w_1{}^{15}x^5y^{11}+\frac{5111618506255}{271080103}\,w_1{}^6w_2{}^3x^5y^{11}+\frac{74081594937329898}{1268925962143}\,w_1{}^9w_2{}^2x^5y^{11}+$
$\frac{1626352602776045}{1268925962143}\,w_2{}^4w_1{}^3x^5y^{11}+\frac{16612281320972317}{1268925962143}\,w_1{}^9w_2{}^2x^4y^{12}+\frac{136117207}{78673567}\,w_2{}^5x^4y^{12}+$
$\frac{1310121312403}{271080103}\,w_1{}^6w_2{}^3x^4y^{12}+\frac{11856393433816678}{1268925962143}\,w_1{}^{12}w_2x^4y^{12}+\frac{470212147641686}{1268925962143}\,w_2{}^4w_1{}^3x^4y^{12}+$
$\frac{1980805032692027}{271080103}\,w_1{}^{15}x^4y^{12}+\frac{299312970808770}{181275137449}\,w_1{}^9w_2{}^2x^3y^{13}+\frac{28175244260}{38725729}\,w_1{}^6w_2{}^3x^3y^{13}+$
$\frac{23511966417911}{181275137449}\,w_1{}^{15}x^3y^{13}+\frac{175025854319032}{181275137449}\,w_1{}^{12}w_2x^3y^{13}+\frac{4112420}{11239081}\,w_2{}^5x^3y^{13}+\frac{11882651685818}{181275137449}\,w_2{}^4w_1{}^3x^3y^{13}+$
$\frac{5620666892333}{1268925962143}\,w_1{}^{15}x^2y^{14}+\frac{3360030}{78673567}\,w_2{}^5x^2y^{14}+\frac{56075509042474}{1268925962143}\,w_1{}^{12}w_2x^2y^{14}+\frac{124435082224580}{1268925962143}\,w_1{}^9w_2{}^2x^2y^{14}+$
$\frac{14683796688}{271080103}\,w_1{}^6w_2{}^3x^2y^{14}+\frac{7602228332239}{1268925962143}\,w_2{}^4w_1{}^3x^2y^{14}+\frac{148420}{78673567}\,w_2{}^5xy^{15}+\frac{363725680}{271080103}\,w_1{}^6w_2{}^3xy^{15}+$
$\frac{736556157996}{1268925962143}\,w_1{}^{12}w_2xy^{15}+\frac{49479170302}{1268925962143}\,w_1{}^{15}xy^{15}+\frac{2312980421048}{1268925962143}\,w_1{}^9w_2{}^2xy^{15}+\frac{241936397618}{1268925962143}\,w_2{}^4w_1{}^3xy^{15}$

Some values of the n-series for $F_{E(2)}(x,y)$ at $p=2$ are:

$[2]_{E(2)}(x)=(2\,x+w_1x^2+2\,w_1{}^2x^3+(4\,w_1{}^3+w_2)x^4+(\frac{62}{7}\,w_1{}^4+\frac{30}{7}\,w_1w_2)x^5+(\frac{144}{7}\,w_1{}^5+\frac{111}{7}\,w_1{}^2w_2)x^6+$
$(\frac{348}{7}\,w_1{}^6+\frac{374}{7}\,w_1{}^3w_2+\frac{16}{7}\,w_2{}^2)x^7+(\frac{6056}{49}\,w_1{}^7+\frac{8473}{49}\,w_1{}^4w_2+\frac{872}{49}\,w_1w_2{}^2)x^8+(\frac{3397998}{6223}\,w_1{}^5w_2+\frac{1954410}{6223}\,w_1{}^8+$
$\frac{620170}{6223}\,w_1{}^2w_2{}^2)x^9+(\frac{1509574}{889}\,w_1{}^6w_2+\frac{2923421}{6223}\,w_1{}^3w_2{}^2+\frac{5053148}{6223}\,w_1{}^9+\frac{340}{49}\,w_2{}^3)x^{10}+(\frac{227663680}{43561}\,w_1{}^7w_2+$

$$\frac{87264410}{43561} w_1{}^4 w_2{}^2 + \frac{3444316}{43561} w_1 w_2{}^3 + \frac{92748480}{43561} w_1{}^{10}) x^{11} + (\frac{695656015}{43561} w_1{}^8 w_2 + \frac{348181740}{43561} w_1{}^5 w_2{}^2 + \frac{25691185}{43561} w_1{}^2 w_2{}^3 + \frac{246037020}{43561} w_1{}^{11}) x^{12} + (\frac{8324}{343} w_2{}^4 + \frac{2114551658}{43561} w_1{}^9 w_2 + \frac{189351378}{6223} w_1{}^6 w_2{}^2 + \frac{154422974}{43561} w_1{}^3 w_2{}^3 + \frac{659081188}{43561} w_1{}^{12}) x^{13} + (\frac{12462225616}{304927} w_1{}^{13} + \frac{111158462}{304927} w_1 w_2{}^4 + \frac{44817531212}{304927} w_1{}^{10} w_2 + \frac{34110055556}{304927} w_1{}^7 w_2{}^2 + \frac{5687206745}{304927} w_1{}^4 w_2{}^3) x^{14} + (\frac{4843736052}{43561} w_1{}^{14} + \frac{557238502}{6223} w_1{}^5 w_2{}^3 + \frac{17440738540}{43561} w_1{}^8 w_2{}^2 + \frac{152192884}{343} w_1{}^{11} w_2 + \frac{147725512}{43561} w_1{}^2 w_2{}^4) x^{15} + (\frac{11789328093812}{38725729} w_1{}^{15} + \frac{54331795582793}{38725729} w_1{}^9 w_2{}^2 + \frac{95594983681}{38725729} w_2{}^4 w_1{}^3 + \frac{221216}{2401} w_2{}^5 + \frac{51755729247346}{38725729} w_1{}^{12} w_2 + \frac{15570397856298}{38725729} w_1{}^6 w_2{}^3) x^{16} + O(x^{17}))$$

$$[3]_{E(2)}(x) = (3\,x + 3\,w_1 x^2 + 9\,w_1{}^2 x^3 + (\frac{201}{7} w_1{}^3 + \frac{39}{7} w_2) x^4 + (\frac{711}{7} w_1{}^4 + \frac{279}{7} w_1 w_2) x^5 + (\frac{2655}{7} w_1{}^5 + \frac{1683}{7} w_1{}^2 w_2) x^6 + (\frac{72252}{49} w_1{}^6 + \frac{64800}{49} w_1{}^3 w_2 + \frac{2106}{49} w_2{}^2) x^7 + (\frac{36724899}{6223} w_1{}^7 + \frac{43323654}{6223} w_1{}^4 w_2 + \frac{3534402}{6223} w_1 w_2{}^2) x^8 + (\frac{4533255}{127} w_1{}^5 w_2 + \frac{3067182}{127} w_1{}^8 + \frac{666045}{127} w_1{}^2 w_2{}^2) x^9 + (\frac{159993396}{889} w_1{}^6 w_2 + \frac{36064017}{889} w_1{}^3 w_2{}^2 + \frac{89419905}{889} w_1{}^9 + \frac{3159}{7} w_2{}^3) x^{10} + (\frac{39080110743}{43561} w_1{}^7 w_2 + \frac{12318028425}{43561} w_1{}^4 w_2{}^2 + \frac{380287143}{43561} w_1 w_2{}^3 + \frac{18509457339}{43561} w_1{}^{10}) x^{11} + (\frac{193255393392}{43561} w_1{}^8 w_2 + \frac{80146114164}{43561} w_1{}^5 w_2{}^2 + \frac{4705043688}{43561} w_1{}^2 w_2{}^3 + \frac{79113359673}{43561} w_1{}^{11}) x^{12} + (\frac{1878552}{343} w_2{}^4 + \frac{950102488107}{43561} w_1{}^9 w_2 + \frac{496627385733}{43561} w_1{}^6 w_2{}^2 + \frac{46574767611}{43561} w_1{}^3 w_2{}^3 + \frac{48784904127}{6223} w_1{}^{12}) x^{13} + (\frac{10405412910747}{304927} w_1{}^{13} + \frac{42561768006}{304927} w_1 w_2{}^4 + \frac{32554513471563}{304927} w_1{}^{10} w_2 + \frac{20774719395468}{304927} w_1{}^7 w_2{}^2 + \frac{2812820937615}{304927} w_1{}^4 w_2{}^3) x^{14} + (\frac{5794059484456011}{38725729} w_1{}^{14} + \frac{2804707923044409}{38725729} w_1{}^5 w_2{}^3 + \frac{1533265028821212}{38725729} w_1{}^8 w_2{}^2 + \frac{20170241880687459}{38725729} w_1{}^{11} w_2 + \frac{83705641442694}{38725729} w_1{}^2 w_2{}^4) x^{15} + (\frac{1196682722386974906 60}{181275137449} w_1{}^{15} + \frac{4080319079235725 91985}{181275137449} w_1{}^9 w_2{}^2 + \frac{4711052593492078557}{181275137449} w_2{}^4 w_1{}^3 + \frac{811725590442}{11239081} w_2{}^5 + \frac{6563350626967699952 7}{25896448207} w_1{}^{12} w_2 + \frac{205532438728490 10}{38725729} w_1{}^6 w_2{}^3) x^{16} + O(x^{17}))$$

$$[4]_{E(2)}(x) = (4\,x + 6\,w_1 x^2 + 24\,w_1{}^2 x^3 + (105\,w_1{}^3 + 18\,w_2) x^4 + (\frac{3564}{7} w_1{}^4 + \frac{1272}{7} w_1 w_2) x^5 + (\frac{18282}{7} w_1{}^5 + \frac{10644}{7} w_1{}^2 w_2) x^6 + (\frac{97656}{7} w_1{}^6 + \frac{81072}{7} w_1{}^3 w_2 + \frac{2304}{7} w_2{}^2) x^7 + (\frac{3760140}{49} w_1{}^7 + \frac{4127547}{49} w_1{}^4 w_2 + \frac{301521}{49} w_1 w_2{}^2) x^8 + (\frac{3708912996}{6223} w_1{}^5 w_2 + \frac{2686194060}{6223} w_1{}^8 + \frac{492955500}{6223} w_1{}^2 w_2{}^2) x^9 + (\frac{3683506698}{889} w_1{}^6 w_2 + \frac{5296180626}{6223} w_1{}^3 w_2{}^2 + \frac{15378877914}{6223} w_1{}^9 + \frac{403776}{49} w_2{}^3) x^{10} + (\frac{1239922873512}{43561} w_1{}^7 w_2 + \frac{358070437800}{43561} w_1{}^4 w_2{}^2 + \frac{9817295424}{43561} w_1 w_2{}^3 + \frac{625173208920}{43561} w_1{}^{10}) x^{11} + (\frac{8446494831171}{43561} w_1{}^8 w_2 + \frac{3223172746539}{43561} w_1{}^5 w_2{}^2 + \frac{169786354866}{43561} w_1{}^2 w_2{}^3 + \frac{3673559372376}{43561} w_1{}^{11}) x^{12} + (\frac{81838656}{343} w_2{}^4 + \frac{8169466077396}{6223} w_1{}^9 w_2 + \frac{27601685678772}{43561} w_1{}^6 w_2{}^2 + \frac{2339277172824}{43561} w_1{}^3 w_2{}^3 + \frac{21800321490168}{43561} w_1{}^{12}) x^{13} + (\frac{913249323586788}{304927} w_1{}^{13} + \frac{2620175272608}{304927} w_1 w_2{}^4 + \frac{2697795807400086}{304927} w_1{}^{10} w_2 + \frac{1594396196812122}{304927} w_1{}^7 w_2{}^2 + \frac{196133052971580}{304927} w_1{}^4 w_2{}^3) x^{14} + (\frac{5505112819614768}{304927} w_1{}^{14} + \frac{2134195932871536}{304927} w_1{}^5 w_2{}^3 + \frac{12787375317574104}{304927} w_1{}^8 w_2{}^2 + \frac{18117709286766744}{304927} w_1{}^{11} w_2 + \frac{56811622994496}{304927} w_1{}^2 w_2{}^4) x^{15} + (\frac{42412035788806156472}{38725729} w_1{}^{15} + \frac{18192285424926499 05}{5532247} w_1{}^9 w_2{}^2 + \frac{120938646985941060}{38725729} w_2{}^4 w_1{}^3 + \frac{18027693153}{2401} w_2{}^5 + \frac{15410467472866099821}{38725729} w_1{}^{12} w_2 + \frac{27494331414737 3148895}{38725729} w_1{}^6 w_2{}^3) x^{16} + O(x^{17}))$$

$$[5]_{E(2)}(x) = (5\,x + 10\,w_1 x^2 + 50\,w_1{}^2 x^3 + (\frac{1945}{7} w_1{}^3 + \frac{310}{7} w_2) x^4 + (\frac{11975}{7} w_1{}^4 + \frac{4050}{7} w_1 w_2) x^5 + (\frac{78075}{7} w_1{}^5 + \frac{43350}{7} w_1{}^2 w_2) x^6 + (\frac{3711000}{49} w_1{}^6 + \frac{2951750}{49} w_1{}^3 w_2 + \frac{77500}{49} w_2{}^2) x^7 + (\frac{3295818755}{6223} w_1{}^7 + \frac{3477046315}{6223} w_1{}^4 w_2 + \frac{238172255}{6223} w_1 w_2{}^2) x^8 + (\frac{31350580575}{6223} w_1{}^5 w_2 + \frac{23571257775}{6223} w_1{}^8 + \frac{3933444775}{6223} w_1{}^2 w_2{}^2) x^9 + (\frac{277607129650}{6223} w_1{}^6 w_2 + \frac{54077298425}{6223} w_1{}^3 w_2{}^2 + \frac{171584546300}{6223} w_1{}^9 + 77500\,w_2{}^3) x^{10} + (\frac{16997878752625}{43561} w_1{}^7 w_2 + \frac{4671241986500}{43561} w_1{}^4 w_2{}^2 + \frac{119443123750}{43561} w_1 w_2{}^3 + \frac{8868988737750}{43561} w_1{}^{10}) x^{11} + (\frac{21057412835050}{6223} w_1{}^8 w_2 + \frac{1095309486000}{889} w_1{}^5 w_2{}^2 + \frac{379182229150}{6223} w_1{}^2 w_2{}^3 + \frac{9466540993050}{6223} w_1{}^{11}) x^{12} + (\frac{1506755000}{343} w_2{}^4 + \frac{18145574107 7000}{6223} w_1{}^9 w_2 + \frac{586236985921875}{43561} w_1{}^6 w_2{}^2 + \frac{46859627897000}{43561} w_1{}^3 w_2{}^3 + \frac{500034158720875}{43561} w_1{}^{12}) x^{13} + (\frac{26635750434709750}{304927} w_1{}^{13} + \frac{62385401547500}{304927} w_1 w_2{}^4 + \frac{76256796824853500}{304927} w_1{}^{10} w_2 + \frac{43172266955258750}{304927} w_1{}^7 w_2{}^2 + \frac{5026045820123000}{304927} w_1{}^4 w_2{}^3) x^{14} + (\frac{25929106195761718125}{38725729} w_1{}^{14} + \frac{887561441178001250}{38725729} w_1{}^5 w_2{}^3 + \frac{56040217650426304375}{38725729} w_1{}^8 w_2{}^2 + \frac{82760563831979400625}{38725729} w_1{}^{11} w_2 + \frac{220947638741616250}{38725729} w_1{}^2 w_2{}^4) x^{15} + (\frac{43144962101914089 79395}{835369297} w_1{}^{15} + \frac{84538446700199618838665}{5847585079} w_1{}^9 w_2{}^2 + \frac{71731623063755451 4940}{5847585079} w_2{}^4 w_1{}^3 + \frac{98120471687255}{362551} w_2{}^5 + \frac{10649267894498806723 0945}{5847585079} w_1{}^{12} w_2 + \frac{11496068704766413 7325}{38725729} w_1{}^6 w_2{}^3) x^{16} + O(x^{17}))$$

$$[6]_{E(2)}(x) = (6\,x + 15\,w_1 x^2 + 90\,w_1{}^2 x^3 + (\frac{4245}{7} w_1{}^3 + \frac{645}{7} w_2) x^4 + (\frac{31680}{7} w_1{}^4 + \frac{10350}{7} w_1 w_2) x^5 + (\frac{250515}{7} w_1{}^5 + \frac{134955}{7} w_1{}^2 w_2) x^6 + (\frac{14443110}{49} w_1{}^6 + \frac{11180430}{49} w_1{}^3 w_2 + \frac{278640}{49} w_2{}^2) x^7 + (\frac{15560172825}{6223} w_1{}^7 + \frac{16008487575}{6223} w_1{}^4 w_2 + \frac{1051413045}{6223} w_1 w_2{}^2) x^8 + (\frac{175359772890}{6223} w_1{}^5 w_2 + \frac{134999562150}{6223} w_1{}^8 + \frac{21194530020}{6223} w_1{}^2 w_2{}^2) x^9 + (\frac{1885901270220}{6223} w_1{}^6 w_2 + \frac{50716620810}{889} w_1{}^3 w_2{}^2 + \frac{1192167804195}{6223} w_1{}^9 + \frac{23614740}{49} w_2{}^3) x^{10} + (\frac{140214375958500}{43561} w_1{}^7 w_2 + \frac{37323542278980}{43561} w_1{}^4 w_2{}^2 + \frac{911616455340}{43561} w_1 w_2{}^3 + \frac{74756723361030}{43561} w_1{}^{10}) x^{11} + (\frac{1476193063123890}{43561} w_1{}^8 w_2 + \frac{521564030174700}{43561} w_1{}^5 w_2{}^2 + \frac{24752237664330}{43561} w_1{}^2 w_2{}^3 + \frac{677622001261365}{43561} w_1{}^{11}) x^{12} + (\frac{16207304580}{343} w_2{}^4 + \frac{15441928769638260}{43561} w_1{}^9 w_2 + \frac{6925795728410430}{43561} w_1{}^6 w_2{}^2 + \frac{532914158915100}{43561} w_1{}^3 w_2{}^3 + \frac{6203308613346900}{43561} w_1{}^{12}) x^{13} + (\frac{40088226878506 8540}{304927} w_1{}^{13} + \frac{823410398995830}{304927} w_1 w_2{}^4 + \frac{112529461346562 6225}{304927} w_1{}^{10} w_2 + \frac{619834860078089085}{304927} w_1{}^7 w_2{}^2 + \frac{69627663591347970}{304927} w_1{}^4 w_2{}^3) x^{14} + (\frac{4734450751052985 23700}{38725729} w_1{}^{14} + \frac{1496663858846368 95300}{38725729} w_1{}^5 w_2{}^3 + \frac{977540180895850246470}{38725729} w_1{}^8 w_2{}^2 + \frac{1482301269452679278130}{38725729} w_1{}^{11} w_2 + \frac{3565488810462797520}{38725729} w_1{}^2 w_2{}^4) x^{15} + (\frac{2073974942099643420 2500725}{181275137449} w_1{}^{15} + \frac{5553006282922986262 8454380}{181275137449} w_1{}^9 w_2{}^2 + \frac{4379230085549925953 95890}{181275137449} w_2{}^4 w_1{}^3 + \frac{56596030187150985}{11239081} w_2{}^5 + \frac{7176228771932331483 2286840}{181275137449} w_1{}^{12} w_2 + \frac{3369106238734573046 10}{5532247} w_1{}^6 w_2{}^3) x^{16} + O(x^{17}))$$

$$[7]_{E(2)}(x) = (7\,x + 21\,w_1 x^2 + 147\,w_1{}^2 x^3 + (1164\,w_1{}^3 + 171\,w_2) x^4 + (10206\,w_1{}^4 + 3255\,w_1 w_2) x^5 + (94857\,w_1{}^5 + 50043\,w_1{}^2 w_2) x^6 + (918309\,w_1{}^6 + 697662\,w_1{}^3 w_2 + 16758\,w_2{}^2) x^7 + (\frac{1162934088}{127} w_1{}^7 + \frac{1175895204}{127} w_1{}^4 w_2 + \frac{74979591}{127} w_1 w_2{}^2) x^8 + (\frac{15157407447}{127} w_1{}^5 w_2 + \frac{11860340520}{127} w_1{}^8 + \frac{1784635440}{127} w_1{}^2 w_2{}^2) x^9 + (\frac{191774496942}{127} w_1{}^6 w_2 + \frac{35249182479}{127} w_1{}^3 w_2{}^2 + \frac{123121454862}{127} w_1{}^9 + 2256345\,w_2{}^3) x^{10} + (\frac{2395943565435}{127} w_1{}^7 w_2 + \frac{623766279150}{127} w_1{}^4 w_2{}^2 + \frac{14750148567}{127} w_1 w_2{}^3 + \frac{1296537332580}{127} w_1{}^{10}) x^{11} + (\frac{29668122574095}{127} w_1{}^8 w_2 + \frac{10265273656650}{127} w_1{}^5 w_2{}^2 + \frac{473232067815}{127} w_1{}^2 w_2{}^3 + \frac{13815356957565}{127} w_1{}^{11}) x^{12} + (351478188\,w_2{}^4 + \frac{36498621208086}{127} w_1{}^9 w_2 + \frac{160476086288277}{127} w_1{}^6 w_2{}^2 + \frac{12022368683028}{127} w_1{}^3 w_2{}^3 + \frac{148675788789471}{127} w_1{}^{12}) x^{13} + (\frac{1613539785401751}{127} w_1{}^{13} + \frac{3023378406042}{127} w_1 w_2{}^4 + \frac{44683236580706 67}{127} w_1{}^{10} w_2 + \frac{2414852556705111}{127} w_1{}^7 w_2{}^2 + \frac{264564072491115}{127} w_1{}^4 w_2{}^3) x^{14} + (\frac{2240153344055849628}{16129} w_1{}^{14} + \frac{670116179528399856}{16129} w_1{}^5 w_2{}^3 + \frac{448168904845830 0630}{16129} w_1{}^8 w_2{}^2 + \frac{692142790623186 1092}{16129} w_1{}^{11} w_2 + \frac{154763615082173 58}{16129} w_1{}^2 w_2{}^4) x^{15} + (\frac{2604919447046683236 8274}{17048353} w_1{}^{15} + \frac{6763982590444892796 6876}{17048353} w_1{}^9 w_2{}^2 + \frac{5067327537672827 91822}{17048353} w_2{}^4 w_1{}^3 + \frac{62904553956927}{1057} w_2{}^5 + \frac{8897258298202565 1087537}{17048353} w_1{}^{12} w_2 + \frac{8706514171120400 3646}{112903} w_1{}^6 w_2{}^3) x^{16} + O(x^{17}))$$

$$[8]_{E(2)}(x) = (8\,x + 28\,w_1 x^2 + 224\,w_1{}^2 x^3 + (2038\,w_1{}^3 + 292\,w_2) x^4 + (20528\,w_1{}^4 + 6432\,w_1 w_2) x^5 + (219240\,w_1{}^5 + 113904\,w_1{}^2 w_2) x^6 + (\frac{17073216}{7} w_1{}^6 + \frac{12794240}{7} w_1{}^3 w_2 + \frac{299008}{7} w_2{}^2) x^7 + (\frac{195646271}{7} w_1{}^7 + \frac{195338086}{7} w_1{}^4 w_2 + \frac{12185258}{7} w_1 w_2{}^2) x^8 + (\frac{367775856720}{889} w_1{}^5 w_2 + \frac{291218760744}{889} w_1{}^8 + \frac{42472352560}{889} w_1{}^2 w_2{}^2) x^9 + (\frac{37454949833512}{6223} w_1{}^6 w_2 + \frac{6764256694424}{6223} w_1{}^3 w_2{}^2 + \frac{24319872395540}{6223} w_1{}^9 + \frac{420779008}{49} w_2{}^3) x^{10} + (\frac{538031099180224}{6223} w_1{}^7 w_2 + \frac{137801010121280}{6223} w_1{}^4 w_2{}^2 + \frac{3181111389184}{6223} w_1 w_2{}^3 + \frac{294322469575392}{6223} w_1{}^{10}) x^{11} + (\frac{7659460988525056}{6223} w_1{}^8 w_2 + \frac{2609754813165492}{6223} w_1{}^5 w_2{}^2 + \frac{117748958039464}{6223} w_1{}^2 w_2{}^3 + \frac{3604240546725354}{6223} w_1{}^{11}) x^{12} + (\frac{685087204352}{343} w_2{}^4 + \frac{758288019017155712}{43561} w_1{}^9 w_2 + \frac{32856858493172764 8}{43561} w_1{}^6 w_2{}^2 + \frac{24133168189507136}{43561} w_1{}^3 w_2{}^3 + \frac{312036170542514704}{43561} w_1{}^{12}) x^{13} + (\frac{55598436048407264 8}{6223} w_1{}^{13} + \frac{973464830165504}{6223} w_1 w_2{}^4 + \frac{152453107860446739 2}{6223} w_1{}^{10} w_2 + \frac{812488610779069712}{6223} w_1{}^7 w_2{}^2 + \frac{87383286887476000}{6223} w_1{}^4 w_2{}^3) x^{14} + (\frac{4889586672503962 8864}{43561} w_1{}^{14} + \frac{140453602022696 37376}{43561} w_1{}^5 w_2{}^3 + \frac{955899036067620916 48}{43561} w_1{}^8 w_2{}^2 + \frac{149623006090805453056}{43561} w_1{}^{11} w_2 + \frac{316985517683024896}{43561} w_1{}^2 w_2{}^4) x^{15} + (\frac{5495830947742706654700}{38725729} w_1{}^{15} + \frac{1395412939635412441486895}{38725729} w_1{}^9 w_2{}^2 + \frac{1006440094864398808 2377}{38725729} w_2{}^4 w_1{}^3 + \frac{1212431960103122}{2401} w_2{}^5 + \frac{1859474346787452463050259}{38725729} w_1{}^{12} w_2 + \frac{2667434732185206561379 80}{38725729} w_1{}^6 w_2{}^3) x^{16} + O(x^{17}))$$

$$[9]_{E(2)}(x) = (9\,x + 36\,w_1 x^2 + 324\,w_1{}^2 x^3 + (3330\,w_1{}^3 + 468\,w_2) x^4 + (\frac{265194}{7} w_1{}^4 + \frac{81972}{7} w_1 w_2) x^5 + (\frac{3199662}{7} w_1{}^5 + \frac{1643004}{7} w_1{}^2 w_2) x^6 + (\frac{40214556}{7} w_1{}^6 + 4260276\,w_1{}^3 w_2 + \frac{682344}{7} w_2{}^2) x^7 + (\frac{462843994005}{6223} w_1{}^7 + \frac{457674565554}{6223} w_1{}^4 w_2 + \frac{28071278442}{6223} w_1 w_2{}^2) x^8 + (\frac{7670184142266}{6223} w_1{}^5 w_2 + \frac{6128840002995}{6223} w_1{}^8 + \frac{872709345450}{6223} w_1{}^2 w_2{}^2) x^9 + (\frac{126134196477066}{6223} w_1{}^6 w_2 + \frac{22473649936026}{6223} w_1{}^3 w_2{}^2 + \frac{82608699296259}{6223} w_1{}^9 +$$

$\frac{1367417376}{49}\,w_2{}^3)x^{10}+(\frac{14334741231212142}{43561}\,w_1{}^7w_2+\frac{3625694396578620}{43561}\,w_1{}^4w_2{}^2+\frac{82157930364924}{43561}\,w_1w_2{}^3+\frac{7906644138131010}{43561}\,w_1{}^{10})x^{11}+(\frac{230629297779870246}{43561}\,w_1{}^8w_2+\frac{7760463356820054}{43561}\,w_1{}^5w_2{}^2+\frac{3446297819778816}{43561}\,w_1{}^2w_2{}^3+\frac{109393270487246331}{43561}\,w_1{}^{11})x^{12}+(\frac{3170486831616}{343}\,w_2{}^4+\frac{368609362421528968 2}{43561}\,w_1{}^9w_2+\frac{157944247616624101 2}{43561}\,w_1{}^6w_2{}^2+\frac{114255980037352044}{43561}\,w_1{}^3w_2{}^3+\frac{152859734026634143 8}{43561}\,w_1{}^{12})x^{13}+(\frac{150784646779154126628}{304927}\,w_1{}^{13}+\frac{250598527409756808}{304927}\,w_1w_2{}^4+\frac{4103584782015890243 16}{304927}\,w_1{}^{10}w_2+\frac{216373858689021681672}{304927}\,w_1{}^7w_2{}^2+\frac{229425969073793464 80}{304927}\,w_1{}^4w_2{}^3)x^{14}+(\frac{38831605618702321294398}{5532247}\,w_1{}^{14}+\frac{10813525709919555475 16}{5532247}\,w_1{}^5w_2{}^3+\frac{745889432142548145 4594}{5532247}\,w_1{}^8w_2{}^2+\frac{11795607137384440536 2004}{5532247}\,w_1{}^{11}w_2+\frac{23974260840631475247 6}{5532247}\,w_1{}^2w_2{}^4)x^{15}+(\frac{58631544350610218645371850 7}{5847585079}\,w_1{}^{15}+\frac{14634230219142466326744918 15}{5847585079}\,w_1{}^9w_2{}^2+\frac{10250987374308591482576535}{5847585079}\,w_2{}^4w_1{}^3+\frac{1206562519686716478}{362551}\,w_2{}^5+\frac{19695325534818379772882853 51}{5847585079}\,w_1{}^{12}w_2+\frac{18290973575563910757747 00}{38725729}\,w_1{}^6w_2{}^3)x^{16}+O(x^{17}))$

$[10]_{E(2)}(x)=(10\,x+45\,w_1x^2+450\,w_1{}^2x^3+(\frac{36090}{7}\,w_1{}^3+\frac{4995}{7}\,w_2)x^4+(\frac{457650}{7}\,w_1{}^4+\frac{139950}{7}\,w_1w_2)x^5+(\frac{6155550}{7}\,w_1{}^5+\frac{3131775}{7}\,w_1{}^2w_2)x^6+(\frac{603738000}{49}\,w_1{}^6+\frac{444035250}{49}\,w_1{}^3w_2+\frac{9990000}{49}\,w_2{}^2)x^7+(\frac{1106662783185}{6223}\,w_1{}^7+\frac{1086011342055}{6223}\,w_1{}^4w_2+\frac{65721781710}{6223}\,w_1w_2{}^2)x^8+(\frac{2900061034650}{889}\,w_1{}^5w_2+\frac{2333883984300}{889}\,w_1{}^8+\frac{326100478050}{889}\,w_1{}^2w_2{}^2)x^9+(\frac{372313183726350}{6223}\,w_1{}^6w_2+\frac{65629979344575}{6223}\,w_1{}^3w_2{}^2+\frac{245497042954575}{6223}\,w_1{}^9+\frac{3923572500}{49}\,w_2{}^3)x^{10}+(\frac{47185786229076000}{43561}\,w_1{}^7w_2+\frac{1181699600536575 0}{43561}\,w_1{}^4w_2{}^2+\frac{263845031917500}{43561}\,w_1w_2{}^3+\frac{2619607315488075 0}{43561}\,w_1{}^{10})x^{11}+(\frac{846564664447809900}{43561}\,w_1{}^8w_2+\frac{282424370704022250}{43561}\,w_1{}^5w_2{}^2+\frac{12368959473237075}{43561}\,w_1{}^2w_2{}^3+\frac{4040727373173366525}{43561}\,w_1{}^{11})x^{12}+(\frac{12480364642500}{343}\,w_2{}^4+\frac{1508761536011757450 0}{43561}\,w_1{}^9w_2+\frac{6408041408640626250}{43561}\,w_1{}^6w_2{}^2+\frac{457985970352667250}{43561}\,w_1{}^3w_2{}^3+\frac{629488780573128075 0}{43561}\,w_1{}^{12})x^{13}+(\frac{6922750907017844550 0}{304927}\,w_1{}^{13}+\frac{1103986644402228750}{304927}\,w_1w_2{}^4+\frac{1872898756180785282375}{304927}\,w_1{}^{10}w_2+\frac{9792472814511002000 0}{304927}\,w_1{}^7w_2{}^2+\frac{1026684867924195837 5}{304927}\,w_1{}^4w_2{}^3)x^{14}+(\frac{139133658925588860042 7500}{38725729}\,w_1{}^{14}+\frac{37806620957494692073875 0}{38725729}\,w_1{}^5w_2{}^3+\frac{26356695998286563680750 0}{38725729}\,w_1{}^8w_2{}^2+\frac{420200526259572342150 3750}{38725729}\,w_1{}^{11}w_2+\frac{82642054072607947350 00}{38725729}\,w_1{}^2w_2{}^4)x^{15}+(\frac{33458602807490389967067560 55}{5847585079}\,w_1{}^{15}+\frac{11770438200340240724941087 65}{835369297}\,w_1{}^9w_2{}^2+\frac{56392638541164446858904780}{5847585079}\,w_2{}^4w_1{}^3+\frac{6515884524099459510}{362551}\,w_2{}^5+\frac{11175871262697521707377375540}{5847585079}\,w_1{}^{12}w_2+\frac{10194519588728590583421300}{38725729}\,w_1{}^6w_2{}^3)x^{16}+O(x^{17}))$

$[11]_{E(2)}(x)=(11\,x+55\,w_1x^2+605\,w_1{}^2x^3+(7645\,w_1{}^3+1045\,w_2)x^4+(\frac{748385}{7}\,w_1{}^4+\frac{226875}{7}\,w_1w_2)x^5+(\frac{11102355}{7}\,w_1{}^5+\frac{5606535}{7}\,w_1{}^2w_2)x^6+(\frac{171579210}{7}\,w_1{}^6+\frac{125353580}{7}\,w_1{}^3w_2+\frac{2781790}{7}\,w_2{}^2)x^7+(\frac{2428301744000}{6223}\,w_1{}^7+\frac{2368387491250}{6223}\,w_1{}^4w_2+\frac{141770772440}{6223}\,w_1w_2{}^2)x^8+(\frac{48850131598455}{6223}\,w_1{}^5w_2+\frac{39540459064425}{6223}\,w_1{}^8+\frac{5440680785815}{6223}\,w_1{}^2w_2{}^2)x^9+(\frac{988493903957890}{6223}\,w_1{}^6w_2+\frac{24677455212245}{889}\,w_1{}^3w_2{}^2+\frac{655375524143615}{6223}\,w_1{}^9+\frac{10179960505}{49}\,w_2{}^3)x^{10}+(\frac{138215598112552675}{43561}\,w_1{}^7w_2+\frac{343370512225068 35}{43561}\,w_1{}^4w_2{}^2+\frac{757497143703355}{43561}\,w_1w_2{}^3+\frac{771367515925617 60}{43561}\,w_1{}^{10})x^{11}+(\frac{2735702398000082005}{43561}\,w_1{}^8w_2+\frac{905805748575243450}{43561}\,w_1{}^5w_2{}^2+\frac{392475681340326 10}{43561}\,w_1{}^2w_2{}^3+\frac{1312402462809411930}{43561}\,w_1{}^{11})x^{12}+(\frac{43102456282160}{343}\,w_2{}^4+\frac{5378725567881003602 0}{43561}\,w_1{}^9w_2+\frac{2268177245170327935}{43561}\,w_1{}^6w_2{}^2+\frac{160525014716829372 5}{43561}\,w_1{}^3w_2{}^3+\frac{225516657645577918 00}{43561}\,w_1{}^{12})x^{13}+(\frac{2735603007460609082005}{304927}\,w_1{}^{13}+\frac{4218690783596612510}{304927}\,w_1w_2{}^4+\frac{736569050219353562950}{304927}\,w_1{}^{10}w_2+\frac{3824952419631992450120}{304927}\,w_1{}^7w_2{}^2+\frac{3973725032887939292 15}{304927}\,w_1{}^4w_2{}^3)x^{14}+(\frac{60644406054147755778683825}{38725729}\,w_1{}^{14}+\frac{16154945434516522987243275}{38725729}\,w_1{}^5w_2{}^3+\frac{11359899589750040728464340}{38725729}\,w_1{}^8w_2{}^2+\frac{182300812555877151565245 85}{38725729}\,w_1{}^{11}w_2+\frac{34908988605500003329390}{38725729}\,w_1{}^2w_2{}^4)x^{15}+(\frac{71238456432203677097736893000}{25896448207}\,w_1{}^{15}+\frac{12146815302128753938377560 38385}{181275137449}\,w_1{}^9w_2{}^2+\frac{81586497905699860086436860 80}{181275137449}\,w_2{}^4w_1{}^3+\frac{92858390573344925342 0}{11239081}\,w_2{}^5+\frac{16580665290940466615266152349 30}{181275137449}\,w_1{}^{12}w_2+\frac{48085633975077205759090740}{38725729}\,w_1{}^6w_2{}^3)x^{16}+O(x^{17}))$

$[12]_{E(2)}(x)=(12\,x+66\,w_1x^2+792\,w_1{}^2x^3+(\frac{76593}{7}\,w_1{}^3+\frac{10362}{7}\,w_2)x^4+(\frac{1170972}{7}\,w_1{}^4+\frac{352440}{7}\,w_1w_2)x^5+(\frac{18992754}{7}\,w_1{}^5+\frac{9532116}{7}\,w_1{}^2w_2)x^6+(\frac{2246439096}{49}\,w_1{}^6+\frac{1632212208}{49}\,w_1{}^3w_2+\frac{35811072}{49}\,w_2{}^2)x^7+(\frac{4965918500037}{6223}\,w_1{}^7+\frac{4818905486571}{6223}\,w_1{}^4w_2+\frac{285859106049}{6223}\,w_1w_2{}^2)x^8+(\frac{108709179093108}{6223}\,w_1{}^5w_2+\frac{88411107510000}{6223}\,w_1{}^8+$

$\frac{12011903689500}{6223}\,w_1{}^2w_2{}^2)x^9+(\frac{2405738870944398}{6223}\,w_1{}^6w_2+\frac{417401650101546}{6223}\,w_1{}^3w_2{}^2+\frac{1602232622562528}{6223}\,w_1{}^9+\frac{24306765120}{49}\,w_2{}^3)x^{10}+(\frac{367862101013218680}{43561}\,w_1{}^7w_2+\frac{90783127749398040}{43561}\,w_1{}^4w_2{}^2+\frac{1982842917650496}{43561}\,w_1w_2{}^3+\frac{20619032173355880 0}{43561}\,w_1{}^{10})x^{11}+(\frac{1137464521177682115}{6223}\,w_1{}^8w_2+\frac{374279896228163805}{6223}\,w_1{}^5w_2{}^2+\frac{160737091959915 90}{6223}\,w_1{}^2w_2{}^3+\frac{5479594702458094 35}{6223}\,w_1{}^{11})x^{12}+(\frac{133619910202944}{343}\,w_2{}^4+\frac{1711886262792619213 08}{43561}\,w_1{}^9w_2+\frac{7176402587779679647 6}{43561}\,w_1{}^6w_2{}^2+\frac{5037795659044468584}{43561}\,w_1{}^3w_2{}^3+\frac{7206613637615569306 8}{43561}\,w_1{}^{12})x^{13}+(\frac{9558271026025464472686}{304927}\,w_1{}^{13}+\frac{1433670388955126467 2}{304927}\,w_1w_2{}^4+\frac{2563477094080328591662 2}{304927}\,w_1{}^{10}w_2+\frac{1323708800048220906876 6}{304927}\,w_1{}^7w_2{}^2+\frac{1364816877138555601860}{304927}\,w_1{}^4w_2{}^3)x^{14}+(\frac{2316813257938947077103472 8}{38725729}\,w_1{}^{14}+\frac{6071318447069284192395216}{38725729}\,w_1{}^5w_2{}^3+\frac{4299840414086091123551940 0}{38725729}\,w_1{}^8w_2{}^2+\frac{6937752430017061672743583 2}{38725729}\,w_1{}^{11}w_2+\frac{1299466748204174271300 48}{38725729}\,w_1{}^2w_2{}^4)x^{15}+(\frac{2082989637224092928403518319687}{181275137449}\,w_1{}^{15}+\frac{5028428761344239154123569692233}{181275137449}\,w_1{}^9w_2{}^2+\frac{3325181747883130890025245291}{181275137449}\,w_2{}^4w_1{}^3+\frac{3737481788608560150411}{11239081}\,w_2{}^5+\frac{6899877949895993649122175278991}{181275137449}\,w_1{}^{12}w_2+\frac{1977145703195813584902583 83}{38725729}\,w_1{}^6w_2{}^3)x^{16}+O(x^{17}))$

$[13]_{E(2)}(x)=(13\,x+78\,w_1x^2+1014\,w_1{}^2x^3+(\frac{106431}{7}\,w_1{}^3+\frac{14274}{7}\,w_2)x^4+(\frac{1765881}{7}\,w_1{}^4+\frac{528294}{7}\,w_1w_2)x^5+(\frac{31086705}{7}\,w_1{}^5+\frac{15521298}{7}\,w_1{}^2w_2)x^6+(\frac{3990797772}{49}\,w_1{}^6+\frac{2886264810}{49}\,w_1{}^3w_2+\frac{62719956}{49}\,w_2{}^2)x^7+(\frac{9575200343514}{6223}\,w_1{}^7+\frac{9252309206829}{6223}\,w_1{}^4w_2+\frac{544681832097}{6223}\,w_1w_2{}^2)x^8+(\frac{226604620476585}{6223}\,w_1{}^5w_2+\frac{185029505892348}{6223}\,w_1{}^8+\frac{24872407295385}{6223}\,w_1{}^2w_2{}^2)x^9+(\frac{5444097185364552}{6223}\,w_1{}^6w_2+\frac{938876762992779}{6223}\,w_1{}^3w_2{}^2+\frac{3639546774852495}{6223}\,w_1{}^9+\frac{54127322028}{49}\,w_2{}^3)x^{10}+(\frac{903691067704984143}{43561}\,w_1{}^7w_2+\frac{221775797165429520}{43561}\,w_1{}^4w_2{}^2+\frac{480333310834345 8}{43561}\,w_1w_2{}^3+\frac{508368595900782474}{43561}\,w_1{}^{10})x^{11}+(\frac{21233238709722459342}{43561}\,w_1{}^8w_2+\frac{695023715745301667 4}{43561}\,w_1{}^5w_2{}^2+\frac{296257177965801858}{43561}\,w_1{}^2w_2{}^3+\frac{1026470316502505830 8}{43561}\,w_1{}^{11})x^{12}+(\frac{540461624049 36}{49}\,w_2{}^4+\frac{70793551489881328056}{6223}\,w_1{}^9w_2+\frac{4218636604911780987}{889}\,w_1{}^6w_2{}^2+\frac{205887513529453594 8}{6223}\,w_1{}^3w_2{}^3+\frac{2990357756802205054 2}{6223}\,w_1{}^{12})x^{13}+(\frac{3013420409710428405140 7}{304927}\,w_1{}^{13}+\frac{4415561747123937243 6}{304927}\,w_1w_2{}^4+\frac{8055194270943140951767 8}{304927}\,w_1{}^{10}w_2+\frac{4139821965827595817465 8}{304927}\,w_1{}^7w_2{}^2+\frac{4241259605480285655 60}{304927}\,w_1{}^4w_2{}^3)x^{14}+(\frac{7927972744279005822123833 1}{38725729}\,w_1{}^{14}+\frac{2049134774482912438638209 4}{38725729}\,w_1{}^5w_2{}^3+\frac{1459983906818758656808692 57}{38725729}\,w_1{}^8w_2{}^2+\frac{2366409369601807159645267 59}{38725729}\,w_1{}^{11}w_2+\frac{4350655533935421702788 94}{38725729}\,w_1{}^2w_2{}^4)x^{15}+(\frac{7736582984416047776135588612340}{181275137449}\,w_1{}^{15}+\frac{1853609197591383929245820104 6455}{181275137449}\,w_1{}^9w_2{}^2+\frac{1209760449200063675689144208 67}{181275137449}\,w_2{}^4w_1{}^3+\frac{1345468880989466281514 7}{11239081}\,w_2{}^5+\frac{5213588366576524578390420678 81}{3699492601}\,w_1{}^{12}w_2+\frac{7246803741727899557663486525}{38725729}\,w_1{}^6w_2{}^3)x^{16}+O(x^{17}))$

$[14]_{E(2)}(x)=$
$(14\,x+91\,w_1x^2+1274\,w_1{}^2x^3+(20605\,w_1{}^3+2743\,w_2)x^4+(368732\,w_1{}^4+109746\,w_1w_2)x^5+(7001631\,w_1{}^5+3480477\,w_1{}^2w_2)x^6+(138505458\,w_1{}^6+99778406\,w_1{}^3w_2+2150512\,w_2{}^2)x^7+(\frac{358459290020}{127}\,w_1{}^7+\frac{345120686911}{127}\,w_1{}^4w_2+\frac{20185372883}{127}\,w_1w_2{}^2)x^8+(\frac{9119577016914}{127}\,w_1{}^5w_2+\frac{7471710256920}{127}\,w_1{}^8+\frac{995296720600}{127}\,w_1{}^2w_2{}^2)x^9+(\frac{236371273424104}{127}\,w_1{}^6w_2+\frac{40554667977824}{127}\,w_1{}^3w_2{}^2+\frac{1585312339798 46}{127}\,w_1{}^9+2318021524\,w_2{}^3)x^{10}+(\frac{6046985273587804}{127}\,w_1{}^7w_2+\frac{1476948386775680}{127}\,w_1{}^4w_2{}^2+\frac{3175932435566 8}{127}\,w_1w_2{}^3+\frac{3412225028994600}{127}\,w_1{}^{10})x^{11}+(\frac{153275563952602897}{127}\,w_1{}^8w_2+\frac{4994793831321145 8}{127}\,w_1{}^5w_2{}^2+\frac{211549144861241 2}{127}\,w_1{}^2w_2{}^3+\frac{74318246991600027}{127}\,w_1{}^{11})x^{12}+(2890890282332\,w_2{}^4+\frac{3859033763335070294}{127}\,w_1{}^9w_2+\frac{160294581075169421 4}{127}\,w_1{}^6w_2{}^2+\frac{111106747665010448}{127}\,w_1{}^3w_2{}^3+\frac{163478570366818345 6}{127}\,w_1{}^{12})x^{13}+(\frac{3626538132053926324 3}{127}\,w_1{}^{13}+\frac{52091287109845958}{127}\,w_1w_2{}^4+\frac{9666944415069935294 6}{127}\,w_1{}^{10}w_2+\frac{4948146504439366 3697}{127}\,w_1{}^7w_2{}^2+\frac{5041892038251423680}{127}\,w_1{}^4w_2{}^3)x^{14}+(\frac{1029166984295807478526 86}{16129}\,w_1{}^{14}+\frac{2629038369500644793255 2}{16129}\,w_1{}^5w_2{}^3+\frac{1882777573650568483270158}{16129}\,w_1{}^8w_2{}^2+\frac{3063536160146399996738 68}{16129}\,w_1{}^{11}w_2+\frac{5543609595085466806 72}{16129}\,w_1{}^2w_2{}^4)x^{15}+(\frac{2446248640270143544136330744}{17048353}\,w_1{}^{15}+\frac{5823465646543316241020770115}{17048353}\,w_1{}^9w_2{}^2+\frac{3758344946435514867144 4595}{17048353}\,w_2{}^4w_1{}^3+\frac{4142350647916464971}{1057}\,w_2{}^5+\frac{8055985551036441387911086792}{17048353}\,w_1{}^{12}w_2+\frac{7023580777512159187717260}{112903}\,w_1{}^6w_2{}^3)x^{16}+O(x^{17}))$

$[15]_{E(2)}(x)=(15\,x+105\,w_1x^2+1575\,w_1{}^2x^3+(27330\,w_1{}^3+3615\,w_2)x^4+(524700\,w_1{}^4+155475\,w_1w_2)x^5+(10689525\,w_1{}^5+5293575\,w_1{}^2w_2)x^6+(\frac{1588136625}{7}\,w_1{}^6+\frac{1140216750}{7}\,w_1{}^3w_2+$

$\frac{24401250}{7}w_2{}^2)x^7+(\frac{4409893353345}{889}w_1{}^7+\frac{4232590407960}{889}w_1{}^4w_2+\frac{246167226195}{889}w_1w_2{}^2)x^8+(\frac{120022792994025}{889}w_1{}^5w_2+\frac{98622834089175}{889}w_1{}^8+\frac{13034927159550}{889}w_1{}^2w_2{}^2)x^9+(\frac{23367722002698600}{6223}w_1{}^6w_2+\frac{3991470402390075}{6223}w_1{}^3w_2{}^2+\frac{15715955129884200}{6223}w_1{}^9+\frac{226455800625}{49}w_2{}^3)x^{10}+(\frac{641479021263786375}{6223}w_1{}^7w_2+\frac{156036244978921500}{6223}w_1{}^4w_2{}^2+\frac{3334514948161875}{6223}w_1w_2{}^3+\frac{362940025393308375}{6223}w_1{}^{10})x^{11}+(\frac{1744734605708307645 0}{6223}w_1{}^8w_2+\frac{566372739691036800 0}{6223}w_1{}^5w_2{}^2+\frac{238560460273210725}{6223}w_1{}^2w_2{}^3+\frac{8481340179253806075}{6223}w_1{}^{11})x^{12}+(\frac{2431611257467500}{343}w_2{}^4+\frac{32994337696923937623 75}{43561}w_1{}^9w_2+\frac{10752093144281289375}{343}w_1{}^6w_2{}^2+\frac{941730480280690 7750}{43561}w_1{}^3w_2{}^3+\frac{14011999801891009548 75}{43561}w_1{}^{12})x^{13}+(\frac{4764375883174775524875}{6223}w_1{}^{13}+\frac{6726824869869371250}{6223}w_1w_2{}^4+\frac{12669322684837879964250}{6223}w_1{}^{10}w_2+\frac{6462437311029817816875}{6223}w_1{}^7w_2{}^2+\frac{13375568379608962875}{127}w_1{}^4w_2{}^3)x^{14}+(\frac{10154776986182776949444 8125}{5532247}w_1{}^{14}+\frac{2567954172371639280622 8750}{5532247}w_1{}^5w_2{}^3+\frac{1847179143723283864435 91250}{5532247}w_1{}^8w_2{}^2+\frac{3015662588658403598553 30000}{5532247}w_1{}^{11}w_2+\frac{5382702881047112708362 50}{5532247}w_1{}^2w_2{}^4)x^{15}+(\frac{8028228684825531928399 4807811720}{181275137449}w_1{}^{15}+\frac{1900637314118753608279 94542721295}{181275137449}w_1{}^9w_2{}^2+\frac{1214823099448093421483705238495}{181275137449}w_2{}^4w_1{}^3+\frac{1328525433690371979034 65}{11239081}w_2{}^5+\frac{2637755673801053083449931609 11960}{181275137449}w_1{}^{12}w_2+\frac{7363625310070450794688141800}{38725729}w_1{}^6w_2{}^3)x^{16}+O(x^{17}))$

$[16]_{E(2)}(x)=(16\,x+120\,w_1x^2+1920\,w_1{}^2x^3+(35580\,w_1{}^3+4680\,w_2)x^4+(\frac{5106240}{7}w_1{}^4+\frac{1507200}{7}w_1w_2)x^5+(\frac{111095520}{7}w_1{}^5+\frac{54834240}{7}w_1{}^2w_2)x^6+(\frac{2518141440}{7}w_1{}^6+\frac{1802603520}{7}w_1{}^3w_2+\frac{38338560}{7}w_2{}^2)x^7+(\frac{411594796950}{49}w_1{}^7+\frac{393976853700}{49}w_1{}^4w_2+\frac{22801554780}{49}w_1w_2{}^2)x^8+(\frac{1515522948880320}{6223}w_1{}^5w_2+\frac{1248475085047200}{6223}w_1{}^8+\frac{163888195421760}{6223}w_1{}^2w_2{}^2)x^9+(\frac{45022644149513760}{6223}w_1{}^6w_2+\frac{156339854166240}{127}w_1{}^3w_2{}^2+\frac{30353103449459760}{6223}w_1{}^9+\frac{431816785920}{49}w_2{}^3)x^{10}+(\frac{92405510694232704 00}{43561}w_1{}^7w_2+\frac{22396856065991654 40}{43561}w_1{}^4w_2{}^2+\frac{476034717123379 20}{43561}w_1w_2{}^3+\frac{52402727993051174 40}{43561}w_1{}^{10})x^{11}+(\frac{26843536391210632 2720}{43561}w_1{}^8w_2+\frac{86847334370569566000}{43561}w_1{}^5w_2{}^2+\frac{36404979586340318 40}{43561}w_1{}^2w_2{}^3+\frac{13078040301152287 3320}{43561}w_1{}^{11})x^{12}+(\frac{5627339980554240}{343}w_2{}^4+\frac{77453482610435813 45280}{43561}w_1{}^9w_2+\frac{31953586445220160 16640}{43561}w_1{}^6w_2{}^2+\frac{31342954644468672000}{6223}w_1{}^3w_2{}^3+\frac{32963990206931815 39200}{43561}w_1{}^{12})x^{13}+(\frac{58654523405187945747 5520}{304927}w_1{}^{13}+\frac{81581943192312827 9040}{304927}w_1w_2{}^4+\frac{15564526221597750303 16800}{304927}w_1{}^{10}w_2+\frac{79152304733389834736 4480}{304927}w_1{}^7w_2{}^2+\frac{79946179087850528943360}{304927}w_1{}^4w_2{}^3)x^{14}+(\frac{30649824268284576115 2000}{6223}w_1{}^{14}+\frac{53779381729256405637 1200}{43561}w_1{}^5w_2{}^3+\frac{38833892659002101934 18240}{43561}w_1{}^8w_2{}^2+\frac{63583874057131425554 84160}{43561}w_1{}^{11}w_2+\frac{11214370922249969418240}{43561}w_1{}^2w_2{}^4)x^{15}+(\frac{49147399440517985542577790825}{38725729}w_1{}^{15}+\frac{11579508734045142798434670 2190}{38725729}w_1{}^9w_2{}^2+\frac{73390519959088963953436 9470}{38725729}w_2{}^4w_1{}^3+\frac{797137771065864157 80}{2401}w_2{}^5+\frac{16115461302003400945878 3928170}{38725729}w_1{}^{12}w_2+\frac{20923409429461070106205442160}{38725729}w_1{}^6w_2{}^3)x^{16}+O(x^{17}))$

7.9. $F_{E_2^*}(x,y)$ **at** $p=2$ **over** $\mathbb{Z}_2[\![u_1,u_2,\ldots,u_{n-1}]\!][u,\frac{1}{u}]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> n:=2: # n is the height of the fgl
> lambda[0]:=1:
> w[0]:=p:
> L:=(m,n)->{ seq(p*lambda[j]=add(
  lambda[i]*w[j-i]^(p^i),i=0..j),j=m..n) };
> # the inputs m and n are the lower and upper
  # bounds for the subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> subs({seq(w[i]=u[i]*u^(p^i),i=1..n-1),
  w[n]=u^(p^n),seq(w[i]=0,i=n+1..6)},%);
> assign(expand(%));
> p:=2:
> m:=16: # calculate to O(m+1)
> q:=5: # the number of lambda_i's in the logarithm
  # so we know the logarithm to degree x^(p^q)
> f_E_n:=x->sum(lambda[i]*x^(p^i),i=0..q);
> f_E_n(x); # Lubin-Tate or Morava E-theory
> latex(%);
> log_E_n:=powpoly(f_E_n(x),x);
> exp_E_n:=reversion(log_E_n);
> simplify(tpsform(exp_E_n,x,m+1));
> latex(%);
> e_E_n:=x->convert(simplify(tpsform(exp_E_n,x,m+1)),
  polynom);
> F_E_n:=(x,y)->sort(simplify(mtaylor(subs(
  z=f_E_n(x)+f_E_n(y),e_E_n(z)),[x,y],m+1)),[x,y]);
> F_E_n(x,y);
> latex(%);
```

The results of these computations are that the logarithm $\log_{E_2^*}(x)$ at $p=2$ equals

$x-1/2\,u_1u^2x^2+(1/28\,u_1{}^3u^6-1/14\,u^4)x^4+(\frac{1}{508}u_1u^{10}-\frac{1}{7112}u_1{}^7u^{14}+\frac{1}{3556}u_1{}^4u^{12})x^8+(-\frac{1}{33291272}u_1{}^9u^{26}+\frac{1}{466077808}u_1{}^{15}u^{30}-\frac{1}{1834952}u^{22}u_1{}^3+\frac{1}{917476}u^{20}-\frac{1}{233038904}u_1{}^{12}u^{28})x^{16}+(\frac{1}{1000894470909605776}u_1{}^{28}u^{60}-\frac{1}{15272903697464}u^{44}u_1{}^4-\frac{1}{2181843385352}u^{42}u_1+\frac{1}{30545807394928}u^{46}u_1{}^7+\frac{1}{788105882659888}u_1{}^{19}u^{54}+\frac{1}{142984924415657968}u_1{}^{25}u^{58}-\frac{1}{2001788941819211552}u_1{}^{31}u^{62}-\frac{1}{3940529413029944}u_1{}^{16}u^{52})x^{32}$

and the formal group law $F_{E_2^*}(x,y)$ at $p=2$ equals

$x+y$

$+u_1u^2xy$

$+u_1{}^2u^4x^2y+u_1{}^2u^4xy^2$

$+2/7\,u^4x^3y+6/7\,u_1{}^3u^6x^3y+3/7\,u^4x^2y^2+\frac{16}{7}u_1{}^3u^6x^2y^2+6/7\,u_1{}^3u^6xy^3+2/7\,u^4xy^3$

$$+5/7\,u_1{}^4u^8x^4y+4/7\,u_1u^6x^4y+\tfrac{11}{7}\,u_1u^6x^3y^2+\tfrac{26}{7}\,u_1{}^4u^8x^3y^2+\tfrac{11}{7}\,u_1u^6x^2y^3+\tfrac{26}{7}\,u_1{}^4u^8x^2y^3+$$
$$5/7\,u_1{}^4u^8xy^4+4/7\,u_1u^6xy^4$$

$$+4/7\,u_1{}^5u^{10}x^5y+6/7\,u_1{}^2u^8x^5y+4\,u_1{}^2u^8x^4y^2+5\,u_1{}^5u^{10}x^4y^2+\tfrac{43}{7}\,u_1{}^2u^8x^3y^3+\tfrac{66}{7}\,u_1{}^5u^{10}x^3y^3+$$
$$5\,u_1{}^5u^{10}x^2y^4+4\,u_1{}^2u^8x^2y^4+6/7\,u_1{}^2u^8xy^5+4/7\,u_1{}^5u^{10}xy^5$$

$$+\tfrac{4}{49}\,u^8x^6y+\tfrac{52}{49}\,u_1{}^3u^{10}x^6y+\tfrac{22}{49}\,u_1{}^6u^{12}x^6y+\tfrac{295}{49}\,u_1{}^6u^{12}x^5y^2+\tfrac{381}{49}\,u_1{}^3u^{10}x^5y^2+\tfrac{18}{49}\,u^8x^5y^2+$$
$$\tfrac{876}{49}\,u_1{}^3u^{10}x^4y^3+\tfrac{901}{49}\,u_1{}^6u^{12}x^4y^3+\tfrac{34}{49}\,u^8x^4y^3+\tfrac{876}{49}\,u_1{}^3u^{10}x^3y^4+\tfrac{901}{49}\,u_1{}^6u^{12}x^3y^4+\tfrac{34}{49}\,u^8x^3y^4+$$
$$\tfrac{18}{49}\,u^8x^2y^5+\tfrac{381}{49}\,u_1{}^3u^{10}x^2y^5+\tfrac{295}{49}\,u_1{}^6u^{12}x^2y^5+\tfrac{52}{49}\,u_1{}^3u^{10}xy^6+\tfrac{22}{49}\,u_1{}^6u^{12}xy^6+\tfrac{4}{49}\,u^8xy^6$$

$$+\tfrac{2166}{6223}\,u_1{}^7u^{14}x^7y+\tfrac{1426}{6223}\,u_1u^{10}x^7y+\tfrac{7352}{6223}\,u_1{}^4u^{12}x^7y+\tfrac{41744}{6223}\,u_1{}^7u^{14}x^6y^2+\tfrac{10071}{6223}\,u_1u^{10}x^6y^2+$$
$$\tfrac{79326}{6223}\,u_1{}^4u^{12}x^6y^2+\tfrac{26238}{6223}\,u_1u^{10}x^5y^3+\tfrac{261903}{6223}\,u_1{}^4u^{12}x^5y^3+\tfrac{189025}{6223}\,u_1{}^7u^{14}x^5y^3+\tfrac{303242}{6223}\,u_1{}^7u^{14}x^4y^4+$$
$$\tfrac{35274}{6223}\,u_1u^{10}x^4y^4+\tfrac{378909}{6223}\,u_1{}^4u^{12}x^4y^4+\tfrac{189025}{6223}\,u_1{}^7u^{14}x^3y^5+\tfrac{261903}{6223}\,u_1{}^4u^{12}x^3y^5+\tfrac{26238}{6223}\,u_1u^{10}x^3y^5+$$
$$\tfrac{10071}{6223}\,u_1u^{10}x^2y^6+\tfrac{79326}{6223}\,u_1{}^4u^{12}x^2y^6+\tfrac{41744}{6223}\,u_1{}^7u^{14}x^2y^6+\tfrac{1426}{6223}\,u_1u^{10}xy^7+\tfrac{2166}{6223}\,u_1{}^7u^{14}xy^7+\tfrac{7352}{6223}\,u_1{}^4u^{12}xy^7$$
$$+\tfrac{2852}{6223}\,u_1{}^2u^{12}x^8y+\tfrac{7592}{6223}\,u_1{}^5u^{14}x^8y+\tfrac{1665}{6223}\,u_1{}^8u^{16}x^8y+\tfrac{28591}{6223}\,u_1{}^2u^{12}x^7y^2+\tfrac{115028}{6223}\,u_1{}^5u^{14}x^7y^2+$$
$$\tfrac{43959}{6223}\,u_1{}^8u^{16}x^7y^2+\tfrac{100545}{6223}\,u_1{}^2u^{12}x^6y^3+\tfrac{278160}{6223}\,u_1{}^8u^{16}x^6y^3+\tfrac{524450}{6223}\,u_1{}^5u^{14}x^6y^3+\tfrac{1051929}{6223}\,u_1{}^5u^{14}x^5y^4+$$
$$\tfrac{653421}{6223}\,u_1{}^8u^{16}x^5y^4+\tfrac{178097}{6223}\,u_1{}^2u^{12}x^5y^4+\tfrac{1051929}{6223}\,u_1{}^5u^{14}x^4y^5+\tfrac{178097}{6223}\,u_1{}^2u^{12}x^4y^5+\tfrac{653421}{6223}\,u_1{}^8u^{16}x^4y^5+$$
$$\tfrac{100545}{6223}\,u_1{}^2u^{12}x^3y^6+\tfrac{524450}{6223}\,u_1{}^5u^{14}x^3y^6+\tfrac{278160}{6223}\,u_1{}^8u^{16}x^3y^6+\tfrac{28591}{6223}\,u_1{}^2u^{12}x^2y^7+\tfrac{43959}{6223}\,u_1{}^8u^{16}x^2y^7+$$
$$\tfrac{115028}{6223}\,u_1{}^5u^{14}x^2y^7+\tfrac{2852}{6223}\,u_1{}^2u^{12}xy^8+\tfrac{7592}{6223}\,u_1{}^5u^{14}xy^8+\tfrac{1665}{6223}\,u_1{}^8u^{16}xy^8$$

$$+\tfrac{8910}{43561}\,u_1{}^9u^{18}x^9y+\tfrac{31978}{43561}\,u_1{}^3u^{14}x^9y+\tfrac{52030}{43561}\,u_1{}^6u^{16}x^9y+\tfrac{8}{343}\,u^{12}x^9y+\tfrac{1065776}{43561}\,u_1{}^6u^{16}x^8y^2+\tfrac{72}{343}\,u^{12}x^8y^2+$$
$$\tfrac{437840}{43561}\,u_1{}^3u^{14}x^8y^2+\tfrac{310392}{43561}\,u_1{}^9u^{18}x^8y^2+\tfrac{2629325}{43561}\,u_1{}^9u^{18}x^7y^3+\tfrac{6489104}{43561}\,u_1{}^6u^{16}x^7y^3+\tfrac{2036337}{43561}\,u_1{}^3u^{14}x^7y^3+$$
$$\tfrac{260}{343}\,u^{12}x^7y^3+\tfrac{4678215}{43561}\,u_1{}^3u^{14}x^6y^4+\tfrac{8522341}{43561}\,u_1{}^9u^{18}x^6y^4+\tfrac{17427944}{43561}\,u_1{}^6u^{16}x^6y^4+\tfrac{523}{343}\,u^{12}x^6y^4+$$
$$\tfrac{654}{343}\,u^{12}x^5y^5+\tfrac{6095207}{43561}\,u_1{}^3u^{14}x^5y^5+\tfrac{23899418}{43561}\,u_1{}^6u^{16}x^5y^5+\tfrac{12430100}{43561}\,u_1{}^9u^{18}x^5y^5+\tfrac{4678215}{43561}\,u_1{}^3u^{14}x^4y^6+$$
$$\tfrac{8522341}{43561}\,u_1{}^9u^{18}x^4y^6+\tfrac{17427944}{43561}\,u_1{}^6u^{16}x^4y^6+\tfrac{523}{343}\,u^{12}x^4y^6+\tfrac{6489104}{43561}\,u_1{}^6u^{16}x^3y^7+\tfrac{260}{343}\,u^{12}x^3y^7+$$
$$\tfrac{2036337}{43561}\,u_1{}^3u^{14}x^3y^7+\tfrac{2629325}{43561}\,u_1{}^9u^{18}x^3y^7+\tfrac{310392}{43561}\,u_1{}^9u^{18}x^2y^8+\tfrac{72}{343}\,u^{12}x^2y^8+\tfrac{437840}{43561}\,u_1{}^3u^{14}x^2y^8+$$
$$\tfrac{1065776}{43561}\,u_1{}^6u^{16}x^2y^8+\tfrac{31978}{43561}\,u_1{}^3u^{14}xy^9+\tfrac{8910}{43561}\,u_1{}^9u^{18}xy^9+\tfrac{52030}{43561}\,u_1{}^6u^{16}xy^9+\tfrac{8}{343}\,u^{12}xy^9$$

$$+\tfrac{44640}{43561}\,u_1{}^4u^{16}x^{10}y+\tfrac{48940}{43561}\,u_1{}^7u^{18}x^{10}y+\tfrac{3672}{43561}\,u_1u^{14}x^{10}y+\tfrac{6786}{43561}\,u_1{}^{10}u^{20}x^{10}y+\tfrac{808011}{43561}\,u_1{}^4u^{16}x^9y^2+$$
$$\tfrac{1314435}{43561}\,u_1{}^7u^{18}x^9y^2+\tfrac{302690}{43561}\,u_1{}^{10}u^{20}x^9y^2+\tfrac{47352}{43561}\,u_1u^{14}x^9y^2+\tfrac{99212}{889}\,u_1{}^4u^{16}x^8y^3+\tfrac{474526}{6223}\,u_1{}^{10}u^{20}x^8y^3+$$
$$\tfrac{1484628}{6223}\,u_1{}^7u^{18}x^8y^3+\tfrac{32044}{6223}\,u_1u^{14}x^8y^3+\tfrac{14241679}{43561}\,u_1{}^{10}u^{20}x^7y^4+\tfrac{36308759}{43561}\,u_1{}^7u^{18}x^7y^4+\tfrac{14247855}{43561}\,u_1{}^4u^{16}x^7y^4+$$
$$\tfrac{567297}{43561}\,u_1u^{14}x^7y^4+\tfrac{4071629}{6223}\,u_1{}^{10}u^{20}x^6y^5+\tfrac{3381473}{6223}\,u_1{}^4u^{16}x^6y^5+\tfrac{125647}{6223}\,u_1u^{14}x^6y^5+\tfrac{1342190}{889}\,u_1{}^7u^{18}x^6y^5+$$
$$\tfrac{3381473}{6223}\,u_1{}^4u^{16}x^5y^6+\tfrac{125647}{6223}\,u_1u^{14}x^5y^6+\tfrac{4071629}{6223}\,u_1{}^{10}u^{20}x^5y^6+\tfrac{1342190}{889}\,u_1{}^7u^{18}x^5y^6+\tfrac{14247855}{43561}\,u_1{}^4u^{16}x^4y^7+$$
$$\tfrac{567297}{43561}\,u_1u^{14}x^4y^7+\tfrac{36308759}{43561}\,u_1{}^7u^{18}x^4y^7+\tfrac{14241679}{43561}\,u_1{}^{10}u^{20}x^4y^7+\tfrac{32044}{6223}\,u_1u^{14}x^3y^8+\tfrac{474526}{6223}\,u_1{}^{10}u^{20}x^3y^8+$$
$$\tfrac{1484628}{6223}\,u_1{}^7u^{18}x^3y^8+\tfrac{99212}{889}\,u_1{}^4u^{16}x^3y^8+\tfrac{302690}{43561}\,u_1{}^{10}u^{20}x^2y^9+\tfrac{1314435}{43561}\,u_1{}^7u^{18}x^2y^9+\tfrac{808011}{43561}\,u_1{}^4u^{16}x^2y^9+$$
$$\tfrac{47352}{43561}\,u_1u^{14}x^2y^9+\tfrac{48940}{43561}\,u_1{}^7u^{18}xy^{10}+\tfrac{44640}{43561}\,u_1{}^4u^{16}xy^{10}+\tfrac{6786}{43561}\,u_1{}^{10}u^{20}xy^{10}+\tfrac{3672}{43561}\,u_1u^{14}xy^{10}$$

$$+\tfrac{8984}{43561}\,u_1{}^2u^{16}x^{11}y+\tfrac{44636}{43561}\,u_1{}^8u^{20}x^{11}y+\tfrac{56426}{43561}\,u_1{}^5u^{18}x^{11}y+\tfrac{5156}{43561}\,u_1{}^{11}u^{22}x^{11}y+\tfrac{10371}{343}\,u_1{}^5u^{18}x^{10}y^2+$$
$$\tfrac{287271}{43561}\,u_1{}^{11}u^{22}x^{10}y^2+\tfrac{1532536}{43561}\,u_1{}^8u^{20}x^{10}y^2+\tfrac{152868}{43561}\,u_1{}^2u^{16}x^{10}y^2+\tfrac{3978654}{43561}\,u_1{}^{11}u^{22}x^9y^3+$$
$$\tfrac{15369299}{43561}\,u_1{}^8u^{20}x^9y^3+\tfrac{921640}{43561}\,u_1{}^2u^{16}x^9y^3+\tfrac{10048631}{43561}\,u_1{}^5u^{18}x^9y^3+\tfrac{36964465}{43561}\,u_1{}^5u^{18}x^8y^4+\tfrac{68187074}{43561}\,u_1{}^8u^{20}x^8y^4+$$
$$\tfrac{21859212}{43561}\,u_1{}^{11}u^{22}x^8y^4+\tfrac{2890247}{43561}\,u_1{}^2u^{16}x^8y^4+\tfrac{5492099}{43561}\,u_1{}^2u^{16}x^7y^5+\tfrac{158500527}{43561}\,u_1{}^8u^{20}x^7y^5+$$
$$\tfrac{57510694}{43561}\,u_1{}^{11}u^{22}x^7y^5+\tfrac{76941264}{43561}\,u_1{}^5u^{18}x^7y^5+\tfrac{6759509}{43561}\,u_1{}^2u^{16}x^6y^6+\tfrac{208387871}{43561}\,u_1{}^8u^{20}x^6y^6+$$
$$\tfrac{97525934}{43561}\,u_1{}^5u^{18}x^6y^6+\tfrac{78755046}{43561}\,u_1{}^{11}u^{22}x^6y^6+\tfrac{158500527}{43561}\,u_1{}^8u^{20}x^5y^7+\tfrac{57510694}{43561}\,u_1{}^{11}u^{22}x^5y^7+$$
$$\tfrac{5492099}{43561}\,u_1{}^2u^{16}x^5y^7+\tfrac{76941264}{43561}\,u_1{}^5u^{18}x^5y^7+\tfrac{68187074}{43561}\,u_1{}^8u^{20}x^4y^8+\tfrac{21859212}{43561}\,u_1{}^{11}u^{22}x^4y^8+$$
$$\tfrac{36964465}{43561}\,u_1{}^5u^{18}x^4y^8+\tfrac{2890247}{43561}\,u_1{}^2u^{16}x^4y^8+\tfrac{10048631}{43561}\,u_1{}^5u^{18}x^3y^9+\tfrac{15369299}{43561}\,u_1{}^8u^{20}x^3y^9+$$

$$\tfrac{3978654}{43561}\,u_1{}^{11}u^{22}x^3y^9+\tfrac{921640}{43561}\,u_1{}^2u^{16}x^3y^9+\tfrac{10371}{343}\,u_1{}^5u^{18}x^2y^{10}+\tfrac{1532536}{43561}\,u_1{}^8u^{20}x^2y^{10}+\tfrac{152868}{43561}\,u_1{}^2u^{16}x^2y^{10}+$$
$$\tfrac{287271}{43561}\,u_1{}^{11}u^{22}x^2y^{10}+\tfrac{56426}{43561}\,u_1{}^5u^{18}xy^{11}+\tfrac{44636}{43561}\,u_1{}^8u^{20}xy^{11}+\tfrac{5156}{43561}\,u_1{}^{11}u^{22}xy^{11}+\tfrac{8984}{43561}\,u_1{}^2u^{16}xy^{11}$$

$$+\tfrac{27378}{304927}\,u_1{}^{12}u^{24}x^{12}y+\tfrac{16}{2401}\,u^{16}x^{12}y+\tfrac{463732}{304927}\,u_1{}^6u^{20}x^{12}y+\tfrac{278144}{304927}\,u_1{}^9u^{22}x^{12}y+\tfrac{121712}{304927}\,u_1{}^3u^{18}x^{12}y+$$
$$\tfrac{2647676}{304927}\,u_1{}^3u^{18}x^{11}y^2+\tfrac{13669169}{304927}\,u_1{}^6u^{20}x^{11}y^2+\tfrac{1866488}{304927}\,u_1{}^{12}u^{24}x^{11}y^2+\tfrac{240}{2401}\,u^{16}x^{11}y^2+\tfrac{11949566}{304927}\,u_1{}^9u^{22}x^{11}y^2+$$
$$\tfrac{21288528}{43561}\,u_1{}^9u^{22}x^{10}y^3+\tfrac{200}{343}\,u^{16}x^{10}y^3+\tfrac{2848456}{43561}\,u_1{}^3u^{18}x^{10}y^3+\tfrac{18557831}{43561}\,u_1{}^6u^{20}x^{10}y^3+\tfrac{4562277}{43561}\,u_1{}^{12}u^{24}x^{10}y^3+$$
$$\tfrac{4546}{2401}\,u^{16}x^9y^4+\tfrac{219306463}{304927}\,u_1{}^{12}u^{24}x^9y^4+\tfrac{76675320}{304927}\,u_1{}^3u^{18}x^9y^4+\tfrac{822654058}{304927}\,u_1{}^9u^{22}x^9y^4+\tfrac{590614669}{304927}\,u_1{}^6u^{20}x^9y^4+$$
$$\tfrac{9462}{2401}\,u^{16}x^8y^5+\tfrac{1516653051}{304927}\,u_1{}^6u^{20}x^8y^5+\tfrac{2397650088}{304927}\,u_1{}^9u^{22}x^8y^5+\tfrac{176837553}{304927}\,u_1{}^3u^{18}x^8y^5+$$
$$\tfrac{734781585}{304927}\,u_1{}^{12}u^{24}x^8y^5+\tfrac{13470}{2401}\,u^{16}x^7y^6+\tfrac{2387803323}{304927}\,u_1{}^6u^{20}x^7y^6+\tfrac{1318866305}{304927}\,u_1{}^{12}u^{24}x^7y^6+$$
$$\tfrac{264258956}{304927}\,u_1{}^3u^{18}x^7y^6+\tfrac{4019379251}{304927}\,u_1{}^9u^{22}x^7y^6+\tfrac{13470}{2401}\,u^{16}x^6y^7+\tfrac{2387803323}{304927}\,u_1{}^6u^{20}x^6y^7+$$
$$\tfrac{4019379251}{304927}\,u_1{}^9u^{22}x^6y^7+\tfrac{264258956}{304927}\,u_1{}^3u^{18}x^6y^7+\tfrac{1318866305}{304927}\,u_1{}^{12}u^{24}x^6y^7+\tfrac{2397650088}{304927}\,u_1{}^9u^{22}x^5y^8+$$
$$\tfrac{9462}{2401}\,u^{16}x^5y^8+\tfrac{176837553}{304927}\,u_1{}^3u^{18}x^5y^8+\tfrac{734781585}{304927}\,u_1{}^{12}u^{24}x^5y^8+\tfrac{1516653051}{304927}\,u_1{}^6u^{20}x^5y^8+$$
$$\tfrac{590614669}{304927}\,u_1{}^6u^{20}x^4y^9+\tfrac{4546}{2401}\,u^{16}x^4y^9+\tfrac{219306463}{304927}\,u_1{}^{12}u^{24}x^4y^9+\tfrac{822654058}{304927}\,u_1{}^9u^{22}x^4y^9+\tfrac{76675320}{304927}\,u_1{}^3u^{18}x^4y^9+$$
$$\tfrac{2848456}{43561}\,u_1{}^3u^{18}x^3y^{10}+\tfrac{200}{343}\,u^{16}x^3y^{10}+\tfrac{18557831}{43561}\,u_1{}^6u^{20}x^3y^{10}+\tfrac{4562277}{43561}\,u_1{}^{12}u^{24}x^3y^{10}+\tfrac{21288528}{43561}\,u_1{}^9u^{22}x^3y^{10}+$$
$$\tfrac{2647676}{304927}\,u_1{}^3u^{18}x^2y^{11}+\tfrac{13669169}{304927}\,u_1{}^6u^{20}x^2y^{11}+\tfrac{11949566}{304927}\,u_1{}^9u^{22}x^2y^{11}+\tfrac{1866488}{304927}\,u_1{}^{12}u^{24}x^2y^{11}+\tfrac{240}{2401}\,u^{16}x^2y^{11}+$$
$$\tfrac{27378}{304927}\,u_1{}^{12}u^{24}xy^{12}+\tfrac{16}{2401}\,u^{16}xy^{12}+\tfrac{121712}{304927}\,u_1{}^3u^{18}xy^{12}+\tfrac{463732}{304927}\,u_1{}^6u^{20}xy^{12}+\tfrac{278144}{304927}\,u_1{}^9u^{22}xy^{12}$$

$$+\tfrac{514116}{304927}\,u_1{}^7u^{22}x^{13}y+\tfrac{20746}{304927}\,u_1{}^{13}u^{26}x^{13}y+\tfrac{8984}{304927}\,u_1u^{18}x^{13}y+\tfrac{242832}{304927}\,u_1{}^{10}u^{24}x^{13}y+\tfrac{202168}{304927}\,u_1{}^4u^{20}x^{13}y+$$
$$\tfrac{1700712}{304927}\,u_1{}^{13}u^{26}x^{12}y^2+\tfrac{12817456}{304927}\,u_1{}^{10}u^{24}x^{12}y^2+\tfrac{181816}{304927}\,u_1u^{18}x^{12}y^2+\tfrac{5492848}{304927}\,u_1{}^4u^{20}x^{12}y^2+$$
$$\tfrac{18797664}{304927}\,u_1{}^7u^{22}x^{12}y^2+\tfrac{219063625}{304927}\,u_1{}^7u^{22}x^{11}y^3+\tfrac{1342220}{304927}\,u_1u^{18}x^{11}y^3+\tfrac{35313900}{304927}\,u_1{}^{13}u^{26}x^{11}y^3+$$
$$\tfrac{50835880}{304927}\,u_1{}^4u^{20}x^{11}y^3+\tfrac{195421430}{304927}\,u_1{}^{10}u^{24}x^{11}y^3+\tfrac{1319369801}{304927}\,u_1{}^{10}u^{24}x^{10}y^4+\tfrac{1213718762}{304927}\,u_1{}^7u^{22}x^{10}y^4+$$
$$\tfrac{237034970}{304927}\,u_1{}^4u^{20}x^{10}y^4+\tfrac{297051474}{304927}\,u_1{}^{13}u^{26}x^{10}y^4+\tfrac{5315889}{304927}\,u_1u^{18}x^{10}y^4+\tfrac{13220458}{304927}\,u_1u^{18}x^9y^5+$$
$$\tfrac{657281396}{304927}\,u_1{}^4u^{20}x^9y^5+\tfrac{1236526889}{304927}\,u_1{}^{13}u^{26}x^9y^5+\tfrac{3792004652}{304927}\,u_1{}^7u^{22}x^9y^5+\tfrac{4729655067}{304927}\,u_1{}^{10}u^{24}x^9y^5+$$
$$\tfrac{7295018462}{304927}\,u_1{}^7u^{22}x^8y^6+\tfrac{9872179899}{304927}\,u_1{}^{10}u^{24}x^8y^6+\tfrac{2816649730}{304927}\,u_1{}^{13}u^{26}x^8y^6+\tfrac{22291974}{304927}\,u_1u^{18}x^8y^6+$$
$$\tfrac{1179271006}{304927}\,u_1{}^4u^{20}x^8y^6+\tfrac{4160263}{889}\,u_1{}^4u^{20}x^7y^7+\tfrac{1290260142}{43561}\,u_1{}^7u^{22}x^7y^7+\tfrac{1794022606}{43561}\,u_1{}^{10}u^{24}x^7y^7+$$
$$\tfrac{3776540}{43561}\,u_1u^{18}x^7y^7+\tfrac{526814102}{43561}\,u_1{}^{13}u^{26}x^7y^7+\tfrac{7295018462}{304927}\,u_1{}^7u^{22}x^6y^8+\tfrac{22291974}{304927}\,u_1u^{18}x^6y^8+$$
$$\tfrac{2816649730}{304927}\,u_1{}^{13}u^{26}x^6y^8+\tfrac{1179271006}{304927}\,u_1{}^4u^{20}x^6y^8+\tfrac{9872179899}{304927}\,u_1{}^{10}u^{24}x^6y^8+\tfrac{3792004652}{304927}\,u_1{}^7u^{22}x^5y^9+$$
$$\tfrac{1236526889}{304927}\,u_1{}^{13}u^{26}x^5y^9+\tfrac{13220458}{304927}\,u_1u^{18}x^5y^9+\tfrac{657281396}{304927}\,u_1{}^4u^{20}x^5y^9+\tfrac{4729655067}{304927}\,u_1{}^{10}u^{24}x^5y^9+$$
$$\tfrac{1319369801}{304927}\,u_1{}^{10}u^{24}x^4y^{10}+\tfrac{1213718762}{304927}\,u_1{}^7u^{22}x^4y^{10}+\tfrac{297051474}{304927}\,u_1{}^{13}u^{26}x^4y^{10}+\tfrac{237034970}{304927}\,u_1{}^4u^{20}x^4y^{10}+$$
$$\tfrac{5315889}{304927}\,u_1u^{18}x^4y^{10}+\tfrac{195421430}{304927}\,u_1{}^{10}u^{24}x^3y^{11}+\tfrac{50835880}{304927}\,u_1{}^4u^{20}x^3y^{11}+\tfrac{219063625}{304927}\,u_1{}^7u^{22}x^3y^{11}+$$
$$\tfrac{1342220}{304927}\,u_1u^{18}x^3y^{11}+\tfrac{35313900}{304927}\,u_1{}^{13}u^{26}x^3y^{11}+\tfrac{5492848}{304927}\,u_1{}^4u^{20}x^2y^{12}+\tfrac{181816}{304927}\,u_1u^{18}x^2y^{12}+$$
$$\tfrac{18797664}{304927}\,u_1{}^7u^{22}x^2y^{12}+\tfrac{1700712}{304927}\,u_1{}^{13}u^{26}x^2y^{12}+\tfrac{12817456}{304927}\,u_1{}^{10}u^{24}x^2y^{12}+\tfrac{8984}{304927}\,u_1u^{18}xy^{13}+$$
$$\tfrac{514116}{304927}\,u_1{}^7u^{22}xy^{13}+\tfrac{20746}{304927}\,u_1{}^{13}u^{26}xy^{13}+\tfrac{242832}{304927}\,u_1{}^{10}u^{24}xy^{13}+\tfrac{202168}{304927}\,u_1{}^4u^{20}xy^{13}$$

$$+\tfrac{69158960}{38725729}\,u_1{}^8u^{24}x^{14}y+\tfrac{3283156}{38725729}\,u_1{}^2u^{20}x^{14}y+\tfrac{38126112}{38725729}\,u_1{}^5u^{22}x^{14}y+\tfrac{1995092}{38725729}\,u_1{}^{14}u^{28}x^{14}y+$$
$$\tfrac{26501656}{38725729}\,u_1{}^{11}u^{26}x^{14}y+\tfrac{83914238}{38725729}\,u_1{}^2u^{20}x^{13}y^2+\tfrac{1691634132}{38725729}\,u_1{}^{11}u^{26}x^{13}y^2+\tfrac{1271693020}{38725729}\,u_1{}^5u^{22}x^{13}y^2+$$
$$\tfrac{193764859}{38725729}\,u_1{}^{14}u^{28}x^{13}y^2+\tfrac{3088275354}{38725729}\,u_1{}^8u^{24}x^{13}y^2+\tfrac{43526290120}{38725729}\,u_1{}^8u^{24}x^{12}y^3+\tfrac{760671346}{38725729}\,u_1{}^2u^{20}x^{12}y^3+$$
$$\tfrac{31073161752}{38725729}\,u_1{}^{11}u^{26}x^{12}y^3+\tfrac{4809129924}{38725729}\,u_1{}^{14}u^{28}x^{12}y^3+\tfrac{14264836892}{38725729}\,u_1{}^5u^{22}x^{12}y^3+\tfrac{252786887672}{38725729}\,u_1{}^{11}u^{26}x^{11}y^4+$$
$$\tfrac{290149497367}{38725729}\,u_1{}^8u^{24}x^{11}y^4+\tfrac{3618525931}{38725729}\,u_1{}^2u^{20}x^{11}y^4+\tfrac{48730958468}{38725729}\,u_1{}^{14}u^{28}x^{11}y^4+\tfrac{79789462601}{38725729}\,u_1{}^5u^{22}x^{11}y^4+$$
$$\tfrac{10652140509}{38725729}\,u_1{}^2u^{20}x^{10}y^5+\tfrac{2470792225496}{38725729}\,u_1{}^{14}u^{28}x^{10}y^5+\tfrac{1096683525289}{38725729}\,u_1{}^{11}u^{26}x^{10}y^5+$$
$$\tfrac{1089163516918}{38725729}\,u_1{}^8u^{24}x^{10}y^5+\tfrac{263598540080}{38725729}\,u_1{}^5u^{22}x^{10}y^5+\tfrac{2525005679076}{38725729}\,u_1{}^8u^{24}x^9y^6+\tfrac{2796047383106}{38725729}\,u_1{}^{11}u^{26}x^9y^6+$$
$$\tfrac{562305908093}{38725729}\,u_1{}^5u^{22}x^9y^6+\tfrac{696696536601}{38725729}\,u_1{}^{14}u^{28}x^9y^6+\tfrac{21110665916}{38725729}\,u_1{}^2u^{20}x^9y^6+\tfrac{1155529064674}{38725729}\,u_1{}^{14}u^{28}x^8y^7+$$
$$\tfrac{812579032175}{38725729}\,u_1{}^5u^{22}x^8y^7+\tfrac{3801405863235}{38725729}\,u_1{}^8u^{24}x^8y^7+\tfrac{29434788988}{38725729}\,u_1{}^2u^{20}x^8y^7+\tfrac{4413207497519}{38725729}\,u_1{}^{11}u^{26}x^8y^7+$$

$\frac{29434788988}{38725729}\,u_1{}^2u^{20}x^7y^8+\frac{1155529064674}{38725729}\,u_1{}^{14}u^{28}x^7y^8+\frac{4413207497519}{38725729}\,u_1{}^{11}u^{26}x^7y^8+\frac{3801405863235}{38725729}\,u_1{}^8u^{24}x^7y^8+\frac{812579032175}{38725729}\,u_1{}^5u^{22}x^7y^8+\frac{21110665916}{38725729}\,u_1{}^2u^{20}x^6y^9+\frac{562305908093}{38725729}\,u_1{}^5u^{22}x^6y^9+\frac{696696536601}{38725729}\,u_1{}^{14}u^{28}x^6y^9+\frac{2525005679076}{38725729}\,u_1{}^8u^{24}x^6y^9+\frac{2796047383106}{38725729}\,u_1{}^{11}u^{26}x^6y^9+\frac{2470792225496}{38725729}\,u_1{}^{14}u^{28}x^5y^{10}+\frac{263598540080}{38725729}\,u_1{}^5u^{22}x^5y^{10}+\frac{1096683525289}{38725729}\,u_1{}^{11}u^{26}x^5y^{10}+\frac{10652140509}{38725729}\,u_1{}^2u^{20}x^5y^{10}+\frac{1089163516918}{38725729}\,u_1{}^8u^{24}x^5y^{10}+\frac{3618525931}{38725729}\,u_1{}^2u^{20}x^4y^{11}+\frac{290149497367}{38725729}\,u_1{}^8u^{24}x^4y^{11}+\frac{79789462601}{38725729}\,u_1{}^5u^{22}x^4y^{11}+\frac{252786887672}{38725729}\,u_1{}^{11}u^{26}x^4y^{11}+\frac{48730958468}{38725729}\,u_1{}^{14}u^{28}x^4y^{11}+\frac{4809129924}{38725729}\,u_1{}^{14}u^{28}x^3y^{12}+\frac{760671346}{38725729}\,u_1{}^2u^{20}x^3y^{12}+\frac{43526290120}{38725729}\,u_1{}^8u^{24}x^3y^{12}+\frac{31073161752}{38725729}\,u_1{}^{11}u^{26}x^3y^{12}+\frac{14264836892}{38725729}\,u_1{}^5u^{22}x^3y^{12}+\frac{83914238}{38725729}\,u_1{}^2u^{20}x^2y^{13}+\frac{3088275354}{38725729}\,u_1{}^8u^{24}x^2y^{13}+\frac{1271693020}{38725729}\,u_1{}^5u^{22}x^2y^{13}+\frac{1691634132}{38725729}\,u_1{}^{11}u^{26}x^2y^{13}+\frac{193764859}{38725729}\,u_1{}^{14}u^{28}x^2y^{13}+\frac{26501656}{38725729}\,u_1{}^{11}u^{26}xy^{14}+\frac{1995092}{38725729}\,u_1{}^{14}u^{28}xy^{14}+\frac{69158960}{38725729}\,u_1{}^8u^{24}xy^{14}+\frac{3283156}{38725729}\,u_1{}^2u^{20}xy^{14}+\frac{38126112}{38725729}\,u_1{}^5u^{22}xy^{14}$

$\frac{736556157996}{1268925962143}\,u_1{}^{12}u^{28}x^{15}y+\frac{2312980421048}{1268925962143}\,u_1{}^9u^{26}x^{15}y+\frac{49479170302}{1268925962143}\,u_1{}^{15}u^{30}x^{15}y+\frac{241936397618}{1268925962143}\,u^{22}u_1{}^3x^{15}y+\frac{363725680}{271080103}\,u_1{}^6u^{24}x^{15}y+\frac{148420}{78673567}\,u^{20}x^{15}y+\frac{5620666892333}{1268925962143}\,u_1{}^{15}u^{30}x^{14}y^2+\frac{7602228332239}{1268925962143}\,u^{22}u_1{}^3x^{14}y^2+\frac{14683796688}{271080103}\,u_1{}^6u^{24}x^{14}y^2+\frac{3360030}{78673567}\,u^{20}x^{14}y^2+\frac{56075509042474}{1268925962143}\,u_1{}^{12}u^{28}x^{14}y^2+\frac{1244350822245 80}{1268925962143}\,u_1{}^9u^{26}x^{14}y^2+\frac{4112420}{11239081}\,u^{20}x^{13}y^3+\frac{299312970808770}{181275137449}\,u_1{}^9u^{26}x^{13}y^3+\frac{28175244260}{38725729}\,u_1{}^6u^{24}x^{13}y^3+\frac{175025854319032}{181275137449}\,u_1{}^{12}u^{28}x^{13}y^3+\frac{23511966417911}{181275137449}\,u_1{}^{15}u^{30}x^{13}y^3+\frac{11882651685818}{181275137449}\,u^{22}u_1{}^3x^{13}y^3+\frac{1310121312403}{271080103}\,u_1{}^6u^{24}x^{12}y^4+\frac{16612281320972317}{1268925962143}\,u_1{}^9u^{26}x^{12}y^4+\frac{1980805032692027}{1268925962143}\,u_1{}^{15}u^{30}x^{12}y^4+\frac{470212147641686}{1268925962143}\,u^{22}u_1{}^3x^{12}y^4+\frac{118563934433816678}{1268925962143}\,u_1{}^{12}u^{28}x^{12}y^4+\frac{136117207}{78673567}\,u^{20}x^{12}y^4+\frac{61395279661865740}{1268925962143}\,u_1{}^{12}u^{28}x^{11}y^5+\frac{12035154072236658}{1268925962143}\,u_1{}^{15}u^{30}x^{11}y^5+\frac{740815949373298 98}{1268925962143}\,u_1{}^9u^{26}x^{11}y^5+\frac{5111618506255}{271080103}\,u_1{}^6u^{24}x^{11}y^5+\frac{414905040}{78673567}\,u^{20}x^{11}y^5+\frac{1626352602776045}{1268925962143}\,u^{22}u_1{}^3x^{11}y^5+\frac{537589079337920}{181275137449}\,u^{22}u_1{}^3x^{10}y^6+\frac{1835757128970}{38725729}\,u_1{}^6u^{24}x^{10}y^6+\frac{4172860717577072}{25896448207}\,u_1{}^9u^{26}x^{10}y^6+\frac{126092300}{11239081}\,u^{20}x^{10}y^6+\frac{26882578524225708}{181275137449}\,u_1{}^{12}u^{28}x^{10}y^6+\frac{5883392428733185}{181275137449}\,u_1{}^{15}u^{30}x^{10}y^6+\frac{368893612775985349}{1268925962143}\,u_1{}^9u^{26}x^9y^7+\frac{1368305140}{78673567}\,u^{20}x^9y^7+\frac{84374449957477374}{1268925962143}\,u_1{}^{15}u^{30}x^9y^7+\frac{361348547990322866}{1268925962143}\,u_1{}^{12}u^{28}x^9y^7+\frac{21938979208009}{271080103}\,u_1{}^6u^{24}x^9y^7+\frac{6121125659917274}{1268925962143}\,u^{22}u_1{}^3x^9y^7+\frac{7179913517213271}{1268925962143}\,u^{22}u_1{}^3x^8y^8+\frac{447759452645748514}{1268925962143}\,u_1{}^{12}u^{28}x^8y^8+\frac{26146198670796}{271080103}\,u_1{}^6u^{24}x^8y^8+\frac{106812093700885072}{1268925962143}\,u_1{}^{15}u^{30}x^8y^8+\frac{447730739753636011}{1268925962143}\,u_1{}^9u^{26}x^8y^8+\frac{1580046918}{78673567}\,u^{20}x^8y^8+\frac{6121125659917274}{1268925962143}\,u^{22}u_1{}^3x^7y^9+\frac{1368305140}{78673567}\,u^{20}x^7y^9+\frac{368893612775985349}{1268925962143}\,u_1{}^9u^{26}x^7y^9+\frac{361348547990322866}{1268925962143}\,u_1{}^{12}u^{28}x^7y^9+\frac{84374449957477374}{1268925962143}\,u_1{}^{15}u^{30}x^7y^9+\frac{21938979208009}{271080103}\,u_1{}^6u^{24}x^7y^9+\frac{26882578524225708}{181275137449}\,u_1{}^{12}u^{28}x^6y^{10}+\frac{1835757128970}{38725729}\,u_1{}^6u^{24}x^6y^{10}+\frac{5883392428733185}{181275137449}\,u_1{}^{15}u^{30}x^6y^{10}+\frac{126092300}{11239081}\,u^{20}x^6y^{10}+\frac{537589079337920}{181275137449}\,u^{22}u_1{}^3x^6y^{10}+\frac{4172860717577072}{25896448207}\,u_1{}^9u^{26}x^6y^{10}+\frac{1626352602776045}{1268925962143}\,u^{22}u_1{}^3x^5y^{11}+\frac{74081594937329898}{1268925962143}\,u_1{}^9u^{26}x^5y^{11}+\frac{61395279661865740}{1268925962143}\,u_1{}^{12}u^{28}x^5y^{11}+\frac{414905040}{78673567}\,u^{20}x^5y^{11}+\frac{5111618506255}{271080103}\,u_1{}^6u^{24}x^5y^{11}+\frac{12035154072236658}{1268925962143}\,u_1{}^{15}u^{30}x^5y^{11}+\frac{118563934433816678}{1268925962143}\,u_1{}^{12}u^{28}x^4y^{12}+\frac{1980805032692027}{1268925962143}\,u_1{}^{15}u^{30}x^4y^{12}+\frac{470212147641686}{1268925962143}\,u^{22}u_1{}^3x^4y^{12}+\frac{136117207}{78673567}\,u^{20}x^4y^{12}+\frac{16612281320972317}{1268925962143}\,u_1{}^9u^{26}x^4y^{12}+\frac{1310121312403}{271080103}\,u_1{}^6u^{24}x^4y^{12}+\frac{175025854319032}{181275137449}\,u_1{}^{12}u^{28}x^3y^{13}+\frac{299312970808770}{181275137449}\,u_1{}^9u^{26}x^3y^{13}+\frac{11882651685818}{181275137449}\,u^{22}u_1{}^3x^3y^{13}+\frac{4112420}{11239081}\,u^{20}x^3y^{13}+\frac{28175244260}{38725729}\,u_1{}^6u^{24}x^3y^{13}+\frac{23511966417911}{181275137449}\,u_1{}^{15}u^{30}x^3y^{13}+\frac{14683796688}{271080103}\,u_1{}^6u^{24}x^2y^{14}+\frac{124435082224580}{1268925962143}\,u_1{}^9u^{26}x^2y^{14}+\frac{3360030}{78673567}\,u^{20}x^2y^{14}+\frac{5620666892333}{1268925962143}\,u_1{}^{15}u^{30}x^2y^{14}+\frac{7602228332239}{1268925962143}\,u^{22}u_1{}^3x^2y^{14}+\frac{56075509042474}{1268925962143}\,u_1{}^{12}u^{28}x^2y^{14}+\frac{2312980421048}{1268925962143}\,u_1{}^9u^{26}xy^{15}+\frac{49479170302}{1268925962143}\,u_1{}^{15}u^{30}xy^{15}+\frac{736556157996}{1268925962143}\,u_1{}^{12}u^{28}xy^{15}+\frac{148420}{78673567}\,u^{20}xy^{15}+\frac{363725680}{271080103}\,u_1{}^6u^{24}xy^{15}+\frac{241936397618}{1268925962143}\,u^{22}u_1{}^3xy^{15}$

Some values of the n-series for $F_{E_2^*}(x,y)$ at $p=2$ are:

$[2]_{E_2^*}(x) =$
$(2\,x+u_1u^2x^2+2\,u_1{}^2u^4x^3+(4\,u_1{}^3u^6+u^4)x^4+(\frac{62}{7}\,u_1{}^4u^8+\frac{30}{7}\,u_1u^6)x^5+(\frac{144}{7}\,u_1{}^5u^{10}+\frac{111}{7}\,u_1{}^2u^8)x^6+(\frac{348}{7}\,u_1{}^6u^{12}+\frac{374}{7}\,u_1{}^3u^{10}+\frac{16}{7}\,u^8)x^7+(\frac{6056}{49}\,u_1{}^7u^{14}+\frac{8473}{49}\,u_1{}^4u^{12}+\frac{872}{49}\,u_1u^{10})x^8+(\frac{620170}{6223}\,u_1{}^2u^{12}+$

$\frac{1954410}{6223}\,u_1{}^8u^{16}+\frac{3397998}{6223}\,u_1{}^5u^{14})x^9+(\frac{340}{49}\,u^{12}+\frac{2923421}{6223}\,u_1{}^3u^{14}+\frac{1509574}{889}\,u_1{}^6u^{16}+\frac{5053148}{6223}\,u_1{}^9u^{18})x^{10}+(\frac{227663680}{43561}\,u_1{}^7u^{18}+\frac{87264410}{43561}\,u_1{}^4u^{16}+\frac{3444316}{43561}\,u_1u^{14}+\frac{92748480}{43561}\,u_1{}^{10}u^{20})x^{11}+(\frac{695656015}{43561}\,u_1{}^8u^{20}+\frac{348181740}{43561}\,u_1{}^5u^{18}+\frac{25691185}{43561}\,u_1{}^2u^{16}+\frac{246037020}{43561}\,u_1{}^{11}u^{22})x^{12}+(\frac{189351378}{6223}\,u_1{}^6u^{20}+\frac{154422974}{43561}\,u_1{}^3u^{18}+\frac{659081188}{43561}\,u_1{}^{12}u^{24}+\frac{2114551658}{43561}\,u_1{}^9u^{22}+\frac{8324}{343}\,u^{16})x^{13}+(\frac{34110055556}{304927}\,u_1{}^7u^{22}+\frac{5687206745}{304927}\,u_1{}^4u^{20}+\frac{12462225616}{304927}\,u_1{}^{13}u^{26}+\frac{44817531212}{304927}\,u_1{}^{10}u^{24}+\frac{111158462}{304927}\,u_1u^{18})x^{14}+(\frac{557238502}{6223}\,u_1{}^5u^{22}+\frac{17440738540}{43561}\,u_1{}^8u^{24}+\frac{4843736052}{43561}\,u_1{}^{14}u^{28}+\frac{152192884}{343}\,u_1{}^{11}u^{26}+\frac{147725512}{43561}\,u_1{}^2u^{20})x^{15}+(\frac{51755729247346}{38725729}\,u_1{}^{12}u^{28}+\frac{54331795582793}{38725729}\,u_1{}^9u^{26}+\frac{11789328093812}{38725729}\,u_1{}^{15}u^{30}+\frac{955949183681}{38725729}\,u^{22}u_1{}^3+\frac{221216}{2401}\,u^{20}+\frac{1557039785629 8}{38725729}\,u_1{}^6u^{24})x^{16}+O(x^{17}))$

$[3]_{E_2^*}(x) = (3\,x+3\,u_1u^2x^2+9\,u_1{}^2u^4x^3+(\frac{201}{7}\,u_1{}^3u^6+\frac{39}{7}\,u^4)x^4+(\frac{711}{7}\,u_1{}^4u^8+\frac{279}{7}\,u_1u^6)x^5+(\frac{2655}{7}\,u_1{}^5u^{10}+\frac{1683}{7}\,u_1{}^2u^8)x^6+(\frac{72252}{49}\,u_1{}^6u^{12}+\frac{64800}{49}\,u_1{}^3u^{10}+\frac{2106}{49}\,u^8)x^7+(\frac{36724899}{6223}\,u_1{}^7u^{14}+\frac{43323654}{6223}\,u_1{}^4u^{12}+\frac{3534402}{6223}\,u_1u^{10})x^8+(\frac{666045}{127}\,u_1{}^2u^{12}+\frac{3067182}{127}\,u_1{}^8u^{16}+\frac{4533255}{127}\,u_1{}^5u^{14})x^9+(\frac{3159}{7}\,u^{12}+\frac{36064017}{889}\,u_1{}^3u^{14}+\frac{159993396}{889}\,u_1{}^6u^{16}+\frac{89419905}{889}\,u_1{}^9u^{18})x^{10}+(\frac{39080110743}{43561}\,u_1{}^7u^{18}+\frac{12318028425}{43561}\,u_1{}^4u^{16}+\frac{380287143}{43561}\,u_1u^{14}+\frac{18509457339}{43561}\,u_1{}^{10}u^{20})x^{11}+(\frac{193255393392}{43561}\,u_1{}^8u^{20}+\frac{80146114164}{43561}\,u_1{}^5u^{18}+\frac{4705043688}{43561}\,u_1{}^2u^{16}+\frac{79113359673}{43561}\,u_1{}^{11}u^{22})x^{12}+(\frac{496627385733}{43561}\,u_1{}^6u^{20}+\frac{46574767611}{43561}\,u_1{}^3u^{18}+\frac{48784904127}{6223}\,u_1{}^{12}u^{24}+\frac{950102488107}{43561}\,u_1{}^9u^{22}+\frac{1878552}{343}\,u^{16})x^{13}+(\frac{20774719395468}{304927}\,u_1{}^7u^{22}+\frac{2812820937615}{304927}\,u_1{}^4u^{20}+\frac{10405412910747}{304927}\,u_1{}^{13}u^{26}+\frac{3255451347156 3}{304927}\,u_1{}^{10}u^{24}+\frac{42561768006}{304927}\,u_1u^{18})x^{14}+(\frac{2804707923044409}{38725729}\,u_1{}^5u^{22}+\frac{153332650288212 12}{38725729}\,u_1{}^8u^{24}+\frac{5794059484456011}{38725729}\,u_1{}^{14}u^{28}+\frac{20170241880687459}{38725729}\,u_1{}^{11}u^{26}+\frac{83705641442694}{38725729}\,u_1{}^2u^{20})x^{15}+(\frac{65633506269676999527}{25896448207}\,u_1{}^{12}u^{28}+\frac{4080319079235752 51985}{181275137449}\,u_1{}^9u^{26}+\frac{11966827223869749 0660}{181275137449}\,u_1{}^{15}u^{30}+\frac{471105259349207 8557}{181275137449}\,u^{22}u_1{}^3+\frac{811725590442}{11239081}\,u^{20}+\frac{20553243872849010}{38725729}\,u_1{}^6u^{24})x^{16}+O(x^{17}))$

$[4]_{E_2^*}(x) = (4\,x+6\,u_1u^2x^2+24\,u_1{}^2u^4x^3+(105\,u_1{}^3u^6+18\,u^4)x^4+(\frac{3564}{7}\,u_1{}^4u^8+\frac{1272}{7}\,u_1u^6)x^5+(\frac{18282}{7}\,u_1{}^5u^{10}+\frac{10644}{7}\,u_1{}^2u^8)x^6+(\frac{97656}{7}\,u_1{}^6u^{12}+\frac{81072}{7}\,u_1{}^3u^{10}+\frac{2304}{7}\,u^8)x^7+(\frac{3760140}{49}\,u_1{}^7u^{14}+\frac{4127547}{49}\,u_1{}^4u^{12}+\frac{301521}{49}\,u_1u^{10})x^8+(\frac{492955500}{6223}\,u_1{}^2u^{12}+\frac{2686194060}{6223}\,u_1{}^8u^{16}+\frac{3708912996}{6223}\,u_1{}^5u^{14})x^9+(\frac{403776}{49}\,u^{12}+\frac{5296180626}{6223}\,u_1{}^3u^{14}+\frac{3683506698}{889}\,u_1{}^6u^{16}+\frac{15378877914}{6223}\,u_1{}^9u^{18})x^{10}+(\frac{1239922873512}{43561}\,u_1{}^7u^{18}+\frac{358070437800}{43561}\,u_1{}^4u^{16}+\frac{9817295424}{43561}\,u_1u^{14}+\frac{625173208920}{43561}\,u_1{}^{10}u^{20})x^{11}+(\frac{8446494831171}{43561}\,u_1{}^8u^{20}+\frac{3223172746539}{43561}\,u_1{}^5u^{18}+\frac{169786354866}{43561}\,u_1{}^2u^{16}+\frac{3673559372376}{43561}\,u_1{}^{11}u^{22})x^{12}+(\frac{27601685678772}{43561}\,u_1{}^6u^{20}+\frac{2339277172824}{43561}\,u_1{}^3u^{18}+\frac{21800321490168}{43561}\,u_1{}^{12}u^{24}+\frac{8169466077396}{6223}\,u_1{}^9u^{22}+\frac{81838656}{343}\,u^{16})x^{13}+(\frac{1594396196812122}{304927}\,u_1{}^7u^{22}+\frac{196133052971580}{304927}\,u_1{}^4u^{20}+\frac{913249323586788}{304927}\,u_1{}^{13}u^{26}+\frac{26977958074000 86}{304927}\,u_1{}^{10}u^{24}+\frac{2620175272608}{304927}\,u_1u^{18})x^{14}+(\frac{2134195932871536}{6223}\,u_1{}^5u^{22}+\frac{127873755317574104}{304927}\,u_1{}^8u^{24}+\frac{5505112819614768}{304927}\,u_1{}^{14}u^{28}+\frac{18117709286766744}{304927}\,u_1{}^{11}u^{26}+\frac{56811622994496}{304927}\,u_1{}^2u^{20})x^{15}+(\frac{1541046747286609 9821}{38725729}\,u_1{}^{12}u^{28}+\frac{1819228542492649905}{5532247}\,u_1{}^9u^{26}+\frac{4241203578806156472}{38725729}\,u_1{}^{15}u^{30}+\frac{120938646985941060}{38725729}\,u^{22}u_1{}^3+\frac{18027693153}{2401}\,u^{20}+\frac{2749433141473148895}{38725729}\,u_1{}^6u^{24})x^{16}+O(x^{17}))$

$[5]_{E_2^*}(x) = (5\,x+10\,u_1u^2x^2+50\,u_1{}^2u^4x^3+(\frac{1945}{7}\,u_1{}^3u^6+\frac{310}{7}\,u^4)x^4+(\frac{11975}{7}\,u_1{}^4u^8+\frac{4050}{7}\,u_1u^6)x^5+(\frac{78075}{7}\,u_1{}^5u^{10}+\frac{43350}{7}\,u_1{}^2u^8)x^6+(\frac{3711000}{49}\,u_1{}^6u^{12}+\frac{2951750}{49}\,u_1{}^3u^{10}+\frac{77500}{49}\,u^8)x^7+(\frac{3295818755}{6223}\,u_1{}^7u^{14}+\frac{3477046315}{6223}\,u_1{}^4u^{12}+\frac{238172255}{6223}\,u_1u^{10})x^8+(\frac{3933444775}{6223}\,u_1{}^2u^{12}+\frac{23571257775}{6223}\,u_1{}^8u^{16}+\frac{31350580575}{6223}\,u_1{}^5u^{14})x^9+(77500\,u^{12}+\frac{54077298425}{6223}\,u_1{}^3u^{14}+\frac{27760712965 0}{6223}\,u_1{}^6u^{16}+\frac{171584546300}{6223}\,u_1{}^9u^{18})x^{10}+(\frac{16997878752625}{43561}\,u_1{}^7u^{18}+\frac{4671241986500}{43561}\,u_1{}^4u^{16}+\frac{119443123750}{43561}\,u_1u^{14}+\frac{8868988737750}{43561}\,u_1{}^{10}u^{20})x^{11}+(\frac{21057412835050}{6223}\,u_1{}^8u^{20}+\frac{1095309486000}{889}\,u_1{}^5u^{18}+\frac{379182229150}{6223}\,u_1{}^2u^{16}+\frac{946654099305 0}{6223}\,u_1{}^{11}u^{22})x^{12}+(\frac{586236985921875}{43561}\,u_1{}^6u^{20}+\frac{46859627897000}{43561}\,u_1{}^3u^{18}+\frac{500034158720875}{43561}\,u_1{}^{12}u^{24}+\frac{181455741077000}{6223}\,u_1{}^9u^{22}+\frac{1506755000}{343}\,u^{16})x^{13}+(\frac{43172266955258750}{304927}\,u_1{}^7u^{22}+\frac{5026045820123000}{304927}\,u_1{}^4u^{20}+\frac{2663575043470975 0}{304927}\,u_1{}^{13}u^{26}+\frac{76256796824853500}{304927}\,u_1{}^{10}u^{24}+\frac{62385401547500}{304927}\,u_1u^{18})x^{14}+(\frac{8875614411782001250}{38725729}\,u_1{}^5u^{22}+\frac{5604021765042630 4375}{38725729}\,u_1{}^8u^{24}+\frac{2592910619576171 8125}{38725729}\,u_1{}^{14}u^{28}+\frac{8276056383197940 0625}{38725729}\,u_1{}^{11}u^{26}+\frac{2209476387416162 50}{38725729}\,u_1{}^2u^{20})x^{15}+$

$$\left(\frac{1064926789449880672309 45}{5847585079}u_1{}^{12}u^{28}+\frac{8453844670019961883866 5}{5847585079}u_1{}^{9}u^{26}+\frac{4314496210191408879395}{835369297}u_1{}^{15}u^{30}+\frac{7173162306375545149 40}{5847585079}u^{22}u_1{}^{3}+\frac{98120471687255}{362551}u^{20}+\frac{1149606870476641373 25}{38725729}u_1{}^{6}u^{24}\right)x^{16}+O(x^{17}))$$

$$[6]_{E_2^*}(x)=(6\,x+15\,u_1u^2x^2+90\,u_1{}^2u^4x^3+(\frac{4245}{7}\,u_1{}^3u^6+\frac{645}{7}\,u^4)x^4+(\frac{31680}{7}\,u_1{}^4u^8+\frac{10350}{7}\,u_1u^6)x^5+(\frac{250515}{7}\,u_1{}^5u^{10}+\frac{134955}{7}\,u_1{}^2u^8)x^6+(\frac{14443110}{49}\,u_1{}^6u^{12}+\frac{11180430}{49}\,u_1{}^3u^{10}+\frac{278640}{49}\,u^8)x^7+(\frac{15560172825}{6223}\,u_1{}^7u^{14}+\frac{16008487575}{6223}\,u_1{}^4u^{12}+\frac{1051413045}{6223}\,u_1u^{10})x^8+(\frac{21194530020}{6223}\,u_1{}^2u^{12}+\frac{134999562150}{6223}\,u_1{}^8u^{16}+\frac{175359772890}{6223}\,u_1{}^5u^{14})x^9+(\frac{236147 40}{49}\,u^{12}+\frac{50716620810}{889}\,u_1{}^3u^{14}+\frac{1885901270220}{6223}\,u_1{}^6u^{16}+\frac{1192167804195}{6223}\,u_1{}^9u^{18})x^{10}+(\frac{140214375958500}{43561}\,u_1{}^7u^{18}+\frac{37323542278980}{43561}\,u_1{}^4u^{16}+\frac{911616455340}{43561}\,u_1u^{14}+\frac{74756723361030}{43561}\,u_1{}^{10}u^{20})x^{11}+(\frac{1476193063123890}{43561}\,u_1{}^8u^{20}+\frac{521564030174700}{43561}\,u_1{}^5u^{18}+\frac{24752237664330}{43561}\,u_1{}^2u^{16}+\frac{677622001261365}{43561}\,u_1{}^{11}u^{22})x^{12}+(\frac{6925795728410430}{43561}\,u_1{}^6u^{20}+\frac{532914158915100}{43561}\,u_1{}^3u^{18}+\frac{6203308613346900}{43561}\,u_1{}^{12}u^{24}+\frac{1544192876963826 0}{43561}\,u_1{}^9u^{22}+\frac{16207304580}{343}\,u^{16})x^{13}+(\frac{619834860078089085}{304927}\,u_1{}^7u^{22}+\frac{69627663591347970}{304927}\,u_1{}^4u^{20}+\frac{4008822687850685 40}{304927}\,u_1{}^{13}u^{26}+\frac{1125294613465626225}{304927}\,u_1{}^{10}u^{24}+\frac{823410398995830}{304927}\,u_1u^{18})x^{14}+(\frac{14966638588463685300}{38725729}\,u_1{}^5u^{22}+\frac{9775401808958502 46470}{38725729}\,u_1{}^8u^{24}+\frac{4734450751052985237 00}{38725729}\,u_1{}^{14}u^{28}+\frac{1482301269452679278130}{38725729}\,u_1{}^{11}u^{26}+\frac{3565488810462797520}{38725729}\,u_1{}^2u^{20})x^{15}+(\frac{7176228771932331483228 6840}{181275137449}\,u_1{}^{12}u^{28}+\frac{5553006289229862628454380}{181275137449}\,u_1{}^9u^{26}+\frac{2073974942099643420250 0725}{181275137449}\,u_1{}^{15}u^{30}+\frac{4379230085549925953958 90}{181275137449}\,u^{22}u_1{}^3+\frac{56596030187150985}{11239081}\,u^{20}+\frac{3369106238734573046 10}{5532247}\,u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[7]_{E_2^*}(x)=(7\,x+21\,u_1u^2x^2+147\,u_1{}^2u^4x^3+(1164\,u_1{}^3u^6+171\,u^4)x^4+(10206\,u_1{}^4u^8+3255\,u_1u^6)x^5+(94857\,u_1{}^5u^{10}+50043\,u_1{}^2u^8)x^6+(918309\,u_1{}^6u^{12}+697662\,u_1{}^3u^{10}+16758\,u^8)x^7+(\frac{1162934088}{127}\,u_1{}^7u^{14}+\frac{1175895204}{127}\,u_1{}^4u^{12}+\frac{74979591}{127}\,u_1u^{10})x^8+(\frac{1784635440}{127}\,u_1{}^2u^{12}+\frac{11860340520}{127}\,u_1{}^8u^{16}+\frac{15157407447}{127}\,u_1{}^5u^{14})x^9+(2256345\,u^{12}+\frac{35249182479}{127}\,u_1{}^3u^{14}+\frac{191774496942}{127}\,u_1{}^6u^{16}+\frac{123121454862}{127}\,u_1{}^9u^{18})x^{10}+(\frac{2395943565435}{127}\,u_1{}^7u^{18}+\frac{623766279150}{127}\,u_1{}^4u^{16}+\frac{14750148567}{127}\,u_1u^{14}+\frac{1296537332580}{127}\,u_1{}^{10}u^{20})x^{11}+(\frac{29668122574095}{127}\,u_1{}^8u^{20}+\frac{10265273656650}{127}\,u_1{}^5u^{18}+\frac{473232067815}{127}\,u_1{}^2u^{16}+\frac{13815356957565}{127}\,u_1{}^{11}u^{22})x^{12}+(\frac{160476086288277}{127}\,u_1{}^6u^{20}+\frac{12022368683028}{127}\,u_1{}^3u^{18}+\frac{148675788789471}{127}\,u_1{}^{12}u^{24}+\frac{364986212080806}{127}\,u_1{}^9u^{22}+351478188\,u^{16})x^{13}+(\frac{2414852556705111}{127}\,u_1{}^7u^{22}+\frac{264564072491115}{127}\,u_1{}^4u^{20}+\frac{16135397854017 51}{127}\,u_1{}^{13}u^{26}+\frac{4468323658070667}{127}\,u_1{}^{10}u^{24}+\frac{3023378406042}{127}\,u_1u^{18})x^{14}+(\frac{6701161795283999 56}{16129}\,u_1{}^5u^{22}+\frac{4481689048458300630}{16129}\,u_1{}^8u^{24}+\frac{2240153344055849628}{16129}\,u_1{}^{14}u^{28}+\frac{6921427906231861092}{16129}\,u_1{}^{11}u^{26}+\frac{1547636150821735 8}{16129}\,u_1{}^2u^{20})x^{15}+(\frac{8897258298202561087537}{17048353}\,u_1{}^{12}u^{28}+\frac{6763982590444892796 6876}{17048353}\,u_1{}^9u^{26}+\frac{2604919447046832368274}{17048353}\,u_1{}^{15}u^{30}+\frac{5067327537672827918 22}{17048353}\,u^{22}u_1{}^3+\frac{62904553956927}{1057}\,u^{20}+\frac{8706514171204003646}{112903}\,u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[8]_{E_2^*}(x)=(8\,x+28\,u_1u^2x^2+224\,u_1{}^2u^4x^3+(2038\,u_1{}^3u^6+292\,u^4)x^4+(20528\,u_1{}^4u^8+6432\,u_1u^6)x^5+(219240\,u_1{}^5u^{10}+113904\,u_1{}^2u^8)x^6+(\frac{17073216}{7}\,u_1{}^6u^{12}+\frac{12794240}{7}\,u_1{}^3u^{10}+\frac{299008}{7}\,u^8)x^7+(\frac{195646271}{7}\,u_1{}^7u^{14}+\frac{195338086}{7}\,u_1{}^4u^{12}+\frac{12185258}{7}\,u_1u^{10})x^8+(\frac{42472352560}{889}\,u_1{}^2u^{12}+\frac{291218760744}{889}\,u_1{}^8u^{16}+\frac{367775856720}{889}\,u_1{}^5u^{14})x^9+(\frac{420779008}{49}\,u^{12}+\frac{6764256694424}{6223}\,u_1{}^3u^{14}+\frac{37454949833512}{6223}\,u_1{}^6u^{16}+\frac{24319872395540}{6223}\,u_1{}^9u^{18})x^{10}+(\frac{538031099180224}{6223}\,u_1{}^7u^{18}+\frac{137801010121280}{6223}\,u_1{}^4u^{16}+\frac{3181111389184}{6223}\,u_1u^{14}+\frac{294322469575392}{6223}\,u_1{}^{10}u^{20})x^{11}+(\frac{7659460988525056}{6223}\,u_1{}^8u^{20}+\frac{2609754813165492}{6223}\,u_1{}^5u^{18}+\frac{117748958039464}{6223}\,u_1{}^2u^{16}+\frac{3604240546725354}{6223}\,u_1{}^{11}u^{22})x^{12}+(\frac{32856858493172764 8}{43561}\,u_1{}^6u^{20}+\frac{24133168189507136}{43561}\,u_1{}^3u^{18}+\frac{312036170542514704}{43561}\,u_1{}^{12}u^{24}+\frac{7582880190171557 12}{43561}\,u_1{}^9u^{22}+\frac{685082043 52}{343}\,u^{16})x^{13}+(\frac{812488610779069712}{6223}\,u_1{}^7u^{22}+\frac{87383268687476000}{6223}\,u_1{}^4u^{20}+\frac{5559843604842 72648}{6223}\,u_1{}^{13}u^{26}+\frac{1524531078604467392}{6223}\,u_1{}^{10}u^{24}+\frac{973464830165504}{6223}\,u_1u^{18})x^{14}+(\frac{1404536020226963737 6}{43561}\,u_1{}^5u^{22}+\frac{9558990360676209 1648}{43561}\,u_1{}^8u^{24}+\frac{4889586672503962 8864}{43561}\,u_1{}^{14}u^{28}+\frac{1496230060908054 53056}{43561}\,u_1{}^{11}u^{26}+\frac{3169855176830248 96}{43561}\,u_1{}^2u^{20})x^{15}+(\frac{1859474346787452463050259}{38725729}\,u_1{}^{12}u^{28}+\frac{1395412939635412441486895}{38725729}\,u_1{}^9u^{26}+\frac{5495830947742702665347 00}{38725729}\,u_1{}^{15}u^{30}+\frac{1006440094864398808237 7}{38725729}\,u^{22}u_1{}^3+\frac{1212431960103122}{2401}\,u^{20}+\frac{2667434732185206561379 80}{38725729}\,u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[9]_{E_2^*}(x)=(9\,x+36\,u_1u^2x^2+324\,u_1{}^2u^4x^3+(3330\,u_1{}^3u^6+468\,u^4)x^4+(\frac{265194}{7}\,u_1{}^4u^8+\frac{81972}{7}\,u_1u^6)x^5+(\frac{3199662}{7}\,u_1{}^5u^{10}+\frac{1643004}{7}\,u_1{}^2u^8)x^6+(\frac{40214556}{7}\,u_1{}^6u^{12}+4260276\,u_1{}^3u^{10}+\frac{682344}{7}\,u^8)x^7+(\frac{462843994005}{6223}\,u_1{}^7u^{14}+\frac{457674565554}{6223}\,u_1{}^4u^{12}+\frac{28071278442}{6223}\,u_1u^{10})x^8+(\frac{872709345450}{6223}\,u_1{}^2u^{12}+\frac{6128840002995}{6223}\,u_1{}^8u^{16}+\frac{7670184142266}{6223}\,u_1{}^5u^{14})x^9+(\frac{1367417376}{49}\,u^{12}+\frac{22473649936026}{6223}\,u_1{}^3u^{14}+\frac{126134196477066}{6223}\,u_1{}^6u^{16}+\frac{82608699296259}{6223}\,u_1{}^9u^{18})x^{10}+(\frac{143347412312121 42}{43561}\,u_1{}^7u^{18}+\frac{362569439657862 0}{43561}\,u_1{}^4u^{16}+\frac{821579303649 24}{43561}\,u_1u^{14}+\frac{7906644138131010}{43561}\,u_1{}^{10}u^{20})x^{11}+(\frac{2306292977798702 46}{43561}\,u_1{}^8u^{20}+\frac{7766046335682005 4}{43561}\,u_1{}^5u^{18}+\frac{344629781977881 6}{43561}\,u_1{}^2u^{16}+\frac{109393270487246331}{43561}\,u_1{}^{11}u^{22})x^{12}+(\frac{1579442476166241012}{43561}\,u_1{}^6u^{20}+\frac{114255980037352044}{43561}\,u_1{}^3u^{18}+\frac{1528597340266341438}{43561}\,u_1{}^{12}u^{24}+\frac{3686093624215289682}{43561}\,u_1{}^9u^{22}+\frac{3170486831616}{343}\,u^{16})x^{13}+(\frac{21637385868902168 1672}{304927}\,u_1{}^7u^{22}+\frac{22942596907379346480}{304927}\,u_1{}^4u^{20}+\frac{15078464677915416628}{304927}\,u_1{}^{13}u^{26}+\frac{41035847820158902 4316}{304927}\,u_1{}^{10}u^{24}+\frac{250598527409756808}{304927}\,u_1u^{18})x^{14}+(\frac{10813525709919155457516}{5532247}\,u_1{}^5u^{22}+\frac{74588943214254814545294}{5532247}\,u_1{}^8u^{24}+\frac{38831605618702321294398}{5532247}\,u_1{}^{14}u^{28}+\frac{11795607137384440536 2004}{5532247}\,u_1{}^{11}u^{26}+\frac{23974260840631475 2476}{5532247}\,u_1{}^2u^{20})x^{15}+(\frac{1969532553481837977288285351}{5847585079}\,u_1{}^{12}u^{28}+\frac{1463423021914246632674491815}{5847585079}\,u_1{}^9u^{26}+\frac{5863154435061021864537 18507}{5847585079}\,u_1{}^{15}u^{30}+\frac{1025098737430859148257 6535}{5847585079}\,u^{22}u_1{}^3+\frac{1206562519686716478}{362551}\,u^{20}+\frac{1829097357556391075774700}{38725729}\,u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[10]_{E_2^*}(x)=(10\,x+45\,u_1u^2x^2+450\,u_1{}^2u^4x^3+(\frac{36090}{7}\,u_1{}^3u^6+\frac{4995}{7}\,u^4)x^4+(\frac{457650}{7}\,u_1{}^4u^8+\frac{139950}{7}\,u_1u^6)x^5+(\frac{6155550}{7}\,u_1{}^5u^{10}+\frac{3131775}{7}\,u_1{}^2u^8)x^6+(\frac{603738000}{49}\,u_1{}^6u^{12}+\frac{444035250}{49}\,u_1{}^3u^{10}+\frac{9990000}{49}\,u^8)x^7+(\frac{1106662783185}{6223}\,u_1{}^7u^{14}+\frac{1086011342055}{6223}\,u_1{}^4u^{12}+\frac{65721781710}{6223}\,u_1u^{10})x^8+(\frac{326100478050}{889}\,u_1{}^2u^{12}+\frac{2333883984300}{889}\,u_1{}^8u^{16}+\frac{290006103465 0}{889}\,u_1{}^5u^{14})x^9+(\frac{3923572500}{49}\,u^{12}+\frac{65629979344575}{6223}\,u_1{}^3u^{14}+\frac{372313183726350}{6223}\,u_1{}^6u^{16}+\frac{245497042954575}{6223}\,u_1{}^9u^{18})x^{10}+(\frac{47185786229076000}{43561}\,u_1{}^7u^{18}+\frac{1181699600536575 0}{43561}\,u_1{}^4u^{16}+\frac{263845031917500}{43561}\,u_1u^{14}+\frac{26196073154880750}{43561}\,u_1{}^{10}u^{20})x^{11}+(\frac{846564664447809900}{43561}\,u_1{}^8u^{20}+\frac{28242437070402225 0}{43561}\,u_1{}^5u^{18}+\frac{123689594732370 75}{43561}\,u_1{}^2u^{16}+\frac{404072737173366525}{43561}\,u_1{}^{11}u^{22})x^{12}+(\frac{6408014108640626250}{43561}\,u_1{}^6u^{20}+\frac{457985970352667250}{43561}\,u_1{}^3u^{18}+\frac{6294887805731280750}{43561}\,u_1{}^{12}u^{24}+\frac{1508761536011757 4500}{43561}\,u_1{}^9u^{22}+\frac{12480364642500}{343}\,u^{16})x^{13}+(\frac{9792472814511001 20000}{304927}\,u_1{}^7u^{22}+\frac{1026684867792419583 75}{304927}\,u_1{}^4u^{20}+\frac{6922750909070178445500}{304927}\,u_1{}^{13}u^{26}+\frac{1872898756180785282375}{304927}\,u_1{}^{10}u^{24}+\frac{1103986644402228750}{304927}\,u_1u^{18})x^{14}+(\frac{3780662095749469207387 50}{38725729}\,u_1{}^5u^{22}+\frac{2635669599828656380807500}{38725729}\,u_1{}^8u^{24}+\frac{1391336589255888600427500}{38725729}\,u_1{}^{14}u^{28}+\frac{4202005262595723421503750}{38725729}\,u_1{}^{11}u^{26}+\frac{8264205407260794735000}{38725729}\,u_1{}^2u^{20})x^{15}+(\frac{1117587126269752170737737 5540}{5847585079}\,u_1{}^{12}u^{28}+\frac{1177043820034024072494108765}{835369297}\,u_1{}^9u^{26}+\frac{3345860280749039899670675 6055}{5847585079}\,u_1{}^{15}u^{30}+\frac{5639263854116444685904780}{5847585079}\,u^{22}u_1{}^3+\frac{6515884524099459510}{362551}\,u^{20}+\frac{1019451958872859058342 1300}{38725729}\,u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[11]_{E_2^*}(x)=(11\,x+55\,u_1u^2x^2+605\,u_1{}^2u^4x^3+(7645\,u_1{}^3u^6+1045\,u^4)x^4+(\frac{748385}{7}\,u_1{}^4u^8+\frac{226875}{7}\,u_1u^6)x^5+(\frac{11102355}{7}\,u_1{}^5u^{10}+\frac{5606535}{7}\,u_1{}^2u^8)x^6+(\frac{171579210}{7}\,u_1{}^6u^{12}+\frac{125353580}{7}\,u_1{}^3u^{10}+\frac{2781790}{7}\,u^8)x^7+(\frac{2428301744000}{6223}\,u_1{}^7u^{14}+\frac{2368387491250}{6223}\,u_1{}^4u^{12}+\frac{141770772440}{6223}\,u_1u^{10})x^8+(\frac{5440680785815}{6223}\,u_1{}^2u^{12}+\frac{39540459064425}{6223}\,u_1{}^8u^{16}+\frac{4885013159845 5}{6223}\,u_1{}^5u^{14})x^9+(\frac{10179960505}{49}\,u^{12}+\frac{2467745521224 5}{889}\,u_1{}^3u^{14}+\frac{988493903957890}{6223}\,u_1{}^6u^{16}+\frac{655375524143615}{6223}\,u_1{}^9u^{18})x^{10}+(\frac{1382155981125526 75}{43561}\,u_1{}^7u^{18}+\frac{3433705122250683 5}{43561}\,u_1{}^4u^{16}+\frac{757497143703355}{43561}\,u_1u^{14}+\frac{77136751592561760}{43561}\,u_1{}^{10}u^{20})x^{11}+(\frac{2735702390800082005}{43561}\,u_1{}^8u^{20}+\frac{9058057485752434 50}{43561}\,u_1{}^5u^{18}+\frac{392475681340326 10}{43561}\,u_1{}^2u^{16}+\frac{131240246280941193 0}{43561}\,u_1{}^{11}u^{22})x^{12}+(\frac{2268177245170932793 5}{43561}\,u_1{}^6u^{20}+\frac{160525014716829372 5}{43561}\,u_1{}^3u^{18}+\frac{2255166576455797180 0}{43561}\,u_1{}^{12}u^{24}+\frac{5378725567881003602 0}{43561}\,u_1{}^9u^{22}+\frac{43102456282160}{343}\,u^{16})x^{13}+(\frac{3824952419631992450120}{304927}\,u_1{}^7u^{22}+\frac{3973725032887939292 15}{304927}\,u_1{}^4u^{20}+\frac{2735603007460609082005}{304927}\,u_1{}^{13}u^{26}+\frac{7365690502119353562950}{304927}\,u_1{}^{10}u^{24}+\frac{4218690783596612510}{304927}\,u_1u^{18})x^{14}+(\frac{1615494543451652298743275}{38725729}\,u_1{}^5u^{22}+\frac{1135989958975004072846434 0}{38725729}\,u_1{}^8u^{24}+\frac{6064460654147755778683 25}{38725729}\,u_1{}^{14}u^{28}+\frac{1823008125558771515624585}{38725729}\,u_1{}^{11}u^{26}+\frac{3490898860550000329390}{38725729}\,u_1{}^2u^{20})x^{15}+(\frac{1658066529094046661526615234930}{181275137449}\,u_1{}^{12}u^{28}+$$

$$\frac{12146815302128753938377560385}{181275137449}u_1{}^9u^{26}+\frac{7123845643220367709773689300}{25896448207}u_1{}^{15}u^{30}+\frac{81586497905699860086436860}{181275137449}u^{22}u_1{}^3+\frac{92858390573344925342}{11239081}u^{20}+\frac{48085633975077205759090740}{38725729}u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[12]_{E_2^*}(x)=(12\,x+66\,u_1u^2x^2+792\,u_1{}^2u^4x^3+(\frac{76593}{7}u_1{}^3u^6+\frac{10362}{7}u^4)x^4+(\frac{1170972}{7}u_1{}^4u^8+\frac{352440}{7}u_1u^6)x^5+(\frac{18992754}{7}u_1{}^5u^{10}+\frac{9532116}{7}u_1{}^2u^8)x^6+(\frac{2246439096}{49}u_1{}^6u^{12}+\frac{1632212208}{49}u_1{}^3u^{10}+\frac{35811072}{49}u^8)x^7+(\frac{4965918500037}{6223}u_1{}^7u^{14}+\frac{4818905486571}{6223}u_1{}^4u^{12}+\frac{285859106049}{6223}u_1u^{10})x^8+(\frac{12011903689500}{6223}u_1{}^2u^{12}+\frac{88411107510000}{6223}u_1{}^8u^{16}+\frac{108709179093108}{6223}u_1{}^5u^{14})x^9+(\frac{24306765120}{49}u^{12}+\frac{417401650101546}{6223}u_1{}^3u^{14}+\frac{2405738870944398}{6223}u_1{}^6u^{16}+\frac{1602232622562528}{6223}u_1{}^9u^{18})x^{10}+(\frac{3678621010131218680}{43561}u_1{}^7u^{18}+\frac{90783127749398040}{43561}u_1{}^4u^{16}+\frac{1982842917650496}{43561}u_1u^{14}+\frac{206190321733558800}{43561}u_1{}^{10}u^{20})x^{11}+(\frac{113746452117768211 5}{6223}u_1{}^8u^{20}+\frac{37427989622816380 5}{6223}u_1{}^5u^{18}+\frac{160737091959915 90}{6223}u_1{}^2u^{16}+\frac{54795947024580 9435}{6223}u_1{}^{11}u^{22})x^{12}+(\frac{71764025877798796476}{43561}u_1{}^6u^{20}+\frac{503779565904468584}{43561}u_1{}^3u^{18}+\frac{720661363761556 93068}{43561}u_1{}^{12}u^{24}+\frac{171188626279261921308}{43561}u_1{}^9u^{22}+\frac{133619910202944}{343}u^{16})x^{13}+(\frac{1323708800048220906876 6}{304927}u_1{}^7u^{22}+\frac{136481687713855560186 0}{304927}u_1{}^4u^{20}+\frac{955827102602546447 2686}{304927}u_1{}^{13}u^{26}+\frac{256347709408032859 16622}{304927}u_1{}^{10}u^{24}+\frac{14336703889551264672}{304927}u_1u^{18})x^{14}+(\frac{6071318447069284192395216}{38725729}u_1{}^5u^{22}+\frac{4299840414086091123551 9400}{38725729}u_1{}^8u^{24}+\frac{23168132579389470771034728}{38725729}u_1{}^{14}u^{28}+\frac{693775243001706167274358 32}{38725729}u_1{}^{11}u^{26}+\frac{129946674820417427130048}{38725729}u_1{}^2u^{20})x^{15}+(\frac{6899877949895993649122175278991}{181275137449}u_1{}^{12}u^{28}+\frac{5028428761344239154123569692233}{181275137449}u_1{}^9u^{26}+\frac{2082989637224092928403518319687}{181275137449}u_1{}^{15}u^{30}+\frac{3325181747883130890025249 5291}{181275137449}u^{22}u_1{}^3+\frac{3737481788608560150411}{11239081}u^{20}+\frac{19771457031958135849025 8383}{38725729}u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[13]_{E_2^*}(x)=(13\,x+78\,u_1u^2x^2+1014\,u_1{}^2u^4x^3+(\frac{106431}{7}u_1{}^3u^6+\frac{14274}{7}u^4)x^4+(\frac{1765881}{7}u_1{}^4u^8+\frac{528294}{7}u_1u^6)x^5+(\frac{31086705}{7}u_1{}^5u^{10}+\frac{15521298}{7}u_1{}^2u^8)x^6+(\frac{3990797772}{49}u_1{}^6u^{12}+\frac{2886264810}{49}u_1{}^3u^{10}+\frac{62719956}{49}u^8)x^7+(\frac{9575200343514}{6223}u_1{}^7u^{14}+\frac{9252309206829}{6223}u_1{}^4u^{12}+\frac{544681832097}{6223}u_1u^{10})x^8+(\frac{24872407295385}{6223}u_1{}^2u^{12}+\frac{185029505892348}{6223}u_1{}^8u^{16}+\frac{226604620476585}{6223}u_1{}^5u^{14})x^9+(\frac{54127322028}{49}u^{12}+\frac{938876762992779}{6223}u_1{}^3u^{14}+\frac{5444097185364552}{6223}u_1{}^6u^{16}+\frac{3639546774852495}{6223}u_1{}^9u^{18})x^{10}+(\frac{9036910677049841 43}{43561}u_1{}^7u^{18}+\frac{221775797165429520}{43561}u_1{}^4u^{16}+\frac{4803331083043458}{43561}u_1u^{14}+\frac{508368595900782474}{43561}u_1{}^{10}u^{20})x^{11}+(\frac{21233238709722459342}{43561}u_1{}^8u^{20}+\frac{69502371574530166 74}{43561}u_1{}^5u^{18}+\frac{29625717796580185 8}{43561}u_1{}^2u^{16}+\frac{10264703165025085 308}{43561}u_1{}^{11}u^{22})x^{12}+(\frac{42186366049117809 87}{889}u_1{}^6u^{20}+\frac{205887513529453594 8}{889}u_1{}^3u^{18}+\frac{29903577568022050542}{6223}u_1{}^{12}u^{24}+\frac{70793551489881328056}{6223}u_1{}^9u^{22}+\frac{54046162404936}{49}u^{16})x^{13}+(\frac{41398219658275958174658}{304927}u_1{}^7u^{22}+\frac{42412596905480285 65560}{304927}u_1{}^4u^{20}+\frac{30134204097104284051407}{304927}u_1{}^{13}u^{26}+\frac{80551942709431409517678}{304927}u_1{}^{10}u^{24}+\frac{44155617471239372436}{304927}u_1u^{18})x^{14}+(\frac{20491347744829124386382094}{38725729}u_1{}^5u^{22}+\frac{14599839068187586568069257}{38725729}u_1{}^8u^{24}+\frac{79279727442790058221238331}{38725729}u_1{}^{14}u^{28}+\frac{23664093696018071596452 6759}{38725729}u_1{}^{11}u^{26}+\frac{43506555339354217027 8894}{38725729}u_1{}^2u^{20})x^{15}+(\frac{52135883665765245783904206 7881}{3699492601}u_1{}^{12}u^{28}+\frac{18536091975913839292458201046455}{181275137449}u_1{}^9u^{26}+\frac{77365829844160477761355886123 40}{181275137449}u_1{}^{15}u^{30}+\frac{12097604492000636756891442086 7}{181275137449}u^{22}u_1{}^3+\frac{13454688809894662815147}{11239081}u^{20}+\frac{72468037417278995766348652 5}{38725729}u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[14]_{E_2^*}(x)=(14\,x+91\,u_1u^2x^2+1274\,u_1{}^2u^4x^3+(20605\,u_1{}^3u^6+2743\,u^4)x^4+(368732\,u_1{}^4u^8+109746\,u_1u^6)x^5+(7001631\,u_1{}^5u^{10}+3480477\,u_1{}^2u^8)x^6+(138505458\,u_1{}^6u^{12}+99778406\,u_1{}^3u^{10}+2150512\,u^8)x^7+(\frac{358459290020}{127}u_1{}^7u^{14}+\frac{345120686911}{127}u_1{}^4u^{12}+\frac{20185372883}{127}u_1u^{10})x^8+(\frac{995296720600}{127}u_1{}^2u^{12}+\frac{7471710256920}{127}u_1{}^8u^{16}+\frac{91195770169 14}{127}u_1{}^5u^{14})x^9+(2318021524\,u^{12}+\frac{40554667977824}{127}u_1{}^3u^{14}+\frac{236371273424104}{127}u_1{}^6u^{16}+\frac{158531233979846}{127}u_1{}^9u^{18})x^{10}+(\frac{6046985273587804}{127}u_1{}^7u^{18}+\frac{1476948386775680}{127}u_1{}^4u^{16}+\frac{31759324355668}{127}u_1u^{14}+\frac{3412225028994600}{127}u_1{}^{10}u^{20})x^{11}+(\frac{153275563952602897}{127}u_1{}^8u^{20}+\frac{49947938313211458}{127}u_1{}^5u^{18}+\frac{2115491448612412}{127}u_1{}^2u^{16}+\frac{74318246991600027}{127}u_1{}^{11}u^{22})x^{12}+(\frac{1602945810751694214}{127}u_1{}^6u^{20}+\frac{111106747665010448}{127}u_1{}^3u^{18}+\frac{16347857033668183456}{127}u_1{}^{12}u^{24}+\frac{38590337633350702 94}{127}u_1{}^9u^{22}+$$

$$2890890282332\,u^{16})x^{13}+(\frac{49481465044393663697}{127}u_1{}^7u^{22}+\frac{50418920382514236 80}{127}u_1{}^4u^{20}+\frac{36265381320539263243}{127}u_1{}^{13}u^{26}+\frac{96669444150699352946}{127}u_1{}^{10}u^{24}+\frac{52091287109845958}{127}u_1u^{18})x^{14}+(\frac{26290383695006447932552}{16129}u_1{}^5u^{22}+\frac{18827775736506848327 0158}{16129}u_1{}^8u^{24}+\frac{10291669842958074785 2686}{16129}u_1{}^{14}u^{28}+\frac{30635361601463999973868}{16129}u_1{}^{11}u^{26}+\frac{55436095950854668067 2}{16129}u_1{}^2u^{20})x^{15}+(\frac{80559855510364413878911086792}{17048353}u_1{}^{12}u^{28}+\frac{58234656465433162410207701 15}{17048353}u_1{}^9u^{26}+\frac{24462486402701435441363307 44}{17048353}u_1{}^{15}u^{30}+\frac{37583449464355148671444595}{17048353}u^{22}u_1{}^3+\frac{41423506479164649 71}{1057}u^{20}+\frac{70235807775121595187717260}{112903}u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[15]_{E_2^*}(x)=(15\,x+105\,u_1u^2x^2+1575\,u_1{}^2u^4x^3+(27330\,u_1{}^3u^6+3615\,u^4)x^4+(524700\,u_1{}^4u^8+155475\,u_1u^6)x^5+(10689525\,u_1{}^5u^{10}+5293575\,u_1{}^2u^8)x^6+(\frac{1588136625}{7}u_1{}^6u^{12}+\frac{1140216750}{7}u_1{}^3u^{10}+\frac{24401250}{7}u^8)x^7+(\frac{4409893353345}{889}u_1{}^7u^{14}+\frac{4232590407960}{889}u_1{}^4u^{12}+\frac{246167226195}{889}u_1u^{10})x^8+(\frac{13034927159550}{889}u_1{}^2u^{12}+\frac{98622834089175}{889}u_1{}^8u^{16}+\frac{120022792994025}{889}u_1{}^5u^{14})x^9+(\frac{226455800625}{49}u^{12}+\frac{3991470402390075}{6223}u_1{}^3u^{14}+\frac{23367722002698600}{6223}u_1{}^6u^{16}+\frac{15715955129884200}{6223}u_1{}^9u^{18})x^{10}+(\frac{64147902126378 6375}{6223}u_1{}^7u^{18}+\frac{15603624497892 1500}{6223}u_1{}^4u^{16}+\frac{3334514948161875}{6223}u_1u^{14}+\frac{362940025393308375}{6223}u_1{}^{10}u^{20})x^{11}+(\frac{17447346057083076450}{6223}u_1{}^8u^{20}+\frac{56637273969103680 00}{6223}u_1{}^5u^{18}+\frac{2385604602732107 25}{6223}u_1{}^2u^{16}+\frac{84813401792538060 75}{6223}u_1{}^{11}u^{22})x^{12}+(\frac{10752093144281289375}{343}u_1{}^6u^{20}+\frac{94173048028906917750}{43561}u_1{}^3u^{18}+\frac{14011999801891000 94875}{43561}u_1{}^{12}u^{24}+\frac{32994337696923937 62375}{43561}u_1{}^9u^{22}+\frac{2431611257467500}{343}u^{16})x^{13}+(\frac{64624373110298178 16875}{6223}u_1{}^7u^{22}+\frac{13375568379608962875}{127}u_1{}^4u^{20}+\frac{47643758831747755248 75}{6223}u_1{}^{13}u^{26}+\frac{12669322684837879964250}{6223}u_1{}^{10}u^{24}+\frac{672682486986937125 0}{6223}u_1u^{18})x^{14}+(\frac{25679541723716392806228750}{5532247}u_1{}^5u^{22}+\frac{18471791437232838644359125 0}{5532247}u_1{}^8u^{24}+\frac{10154776986182776949444812 5}{5532247}u_1{}^{14}u^{28}+\frac{30156625886584035985533000 0}{5532247}u_1{}^{11}u^{26}+\frac{53827028810471127083625 0}{5532247}u_1{}^2u^{20})x^{15}+(\frac{26377556738010530834499316091 1960}{181275137449}u_1{}^{12}u^{28}+\frac{19006373141187536082799454272 1295}{181275137449}u_1{}^9u^{26}+\frac{80282286848255319283994807811720}{181275137449}u_1{}^{15}u^{30}+\frac{12148230994480934214837052384 95}{181275137449}u^{22}u_1{}^3+\frac{13285254336903719790346 5}{11239081}u^{20}+\frac{73636253100704507946881 41800}{38725729}u_1{}^6u^{24})x^{16}+O(x^{17}))$$

$$[16]_{E_2^*}(x)=(16\,x+120\,u_1u^2x^2+1920\,u_1{}^2u^4x^3+(35580\,u_1{}^3u^6+4680\,u^4)x^4+(\frac{5106240}{7}u_1{}^4u^8+\frac{1507200}{7}u_1u^6)x^5+(\frac{111095520}{7}u_1{}^5u^{10}+\frac{54834240}{7}u_1{}^2u^8)x^6+(\frac{2518141440}{7}u_1{}^6u^{12}+\frac{1802603520}{7}u_1{}^3u^{10}+\frac{38338560}{7}u^8)x^7+(\frac{411594796950}{49}u_1{}^7u^{14}+\frac{393976853700}{49}u_1{}^4u^{12}+\frac{22801554780}{49}u_1u^{10})x^8+(\frac{163888195421760}{6223}u_1{}^2u^{12}+\frac{1248475085047200}{6223}u_1{}^8u^{16}+\frac{1515522948880320}{6223}u_1{}^5u^{14})x^9+(\frac{431816785920}{49}u^{12}+\frac{156339854166240}{127}u_1{}^3u^{14}+\frac{45022644149513760}{6223}u_1{}^6u^{16}+\frac{30353103449459760}{6223}u_1{}^9u^{18})x^{10}+(\frac{92405510694232704 00}{43561}u_1{}^7u^{18}+\frac{22396856069961654 40}{43561}u_1{}^4u^{16}+\frac{4760347171233792 0}{43561}u_1u^{14}+\frac{52402727993051174 40}{43561}u_1{}^{10}u^{20})x^{11}+(\frac{26843536391210632272 0}{43561}u_1{}^8u^{20}+\frac{86847334370569566000}{43561}u_1{}^5u^{18}+\frac{36404975986340318 40}{43561}u_1{}^2u^{16}+\frac{13078040301152287332 0}{43561}u_1{}^{11}u^{22})x^{12}+(\frac{31953586445220160166 40}{43561}u_1{}^6u^{20}+\frac{31342954644468672000}{6223}u_1{}^3u^{18}+\frac{32963990206931815390 0}{43561}u_1{}^{12}u^{24}+\frac{77453482610435815 280}{43561}u_1{}^9u^{22}+\frac{562733998055424 0}{343}u^{16})x^{13}+(\frac{79152304733389834736448 0}{304927}u_1{}^7u^{22}+\frac{79946179087850528943360}{304927}u_1{}^4u^{20}+\frac{58654523405187945747552 0}{304927}u_1{}^{13}u^{26}+\frac{15564526221597750301680 0}{304927}u_1{}^{10}u^{24}+\frac{81581943192312827904 0}{304927}u_1u^{18})x^{14}+(\frac{53779381729256405637120 0}{43561}u_1{}^5u^{22}+\frac{38833892659002101934182 40}{43561}u_1{}^8u^{24}+\frac{30649824268284576115200 0}{6223}u_1{}^{14}u^{28}+\frac{63583874057131425554841 60}{43561}u_1{}^{11}u^{26}+\frac{11214370922249969418240}{43561}u_1{}^2u^{20})x^{15}+(\frac{16115461302003400945878392870}{38725729}u_1{}^{12}u^{28}+\frac{11579508734045142798434670 2190}{38725729}u_1{}^9u^{26}+\frac{49147399440517985542577790825}{38725729}u_1{}^{15}u^{30}+\frac{73390519959088963953439 6470}{38725729}u^{22}u_1{}^3+\frac{79713777106586415780}{2401}u^{20}+\frac{20923409429461070106205442160}{38725729}u_1{}^6u^{24})x^{16}+O(x^{17}))$$

7.10. $F_{K(2)}(x,y)$ **at** $p=2$ **over** $K(2)_*$**.**

```
> restart: with(powseries):
> MKfgl_ungraded:=proc(h,p,t)
> # the ungraded Morava K(h)-theory formal group law,
> # h = height, p=prime, t=total degree
> local B,b,f,logF,expF,e,m;
> m:=evalf(1+ceil(log(t)/log(p^h)));
> print(m);
> f:=x->convert(series(sum(x^(p^(h*i))/(p^i),i=0..m),
  x=0,t+1),polynom);
> # f is the logarithm
> print(f(x));
> latex(f(x));
> logF:=powpoly(f(x),x);
> expF:=reversion(logF);
> e:=x->simplify(tpsform(expF,x,t));
> # e is the inverse of the logarithm
> print(sort( simplify( mtaylor( subs(z=f(x)+f(y),e(z)),
  [x,y], t ) ) mod p, [x,y]));
> latex(sort( simplify( mtaylor( subs(z=f(x)+f(y),e(z)),
  [x,y], t ) ) mod p, [x,y]));
> end proc:
> MKfgl_ungraded(2,2,33);

> MKfgl:=proc(h,p,t)
> # the Morava K(h)-theory formal group law,
> # h = height, p=prime, t=total degree
> local B,b,f,logF,expF,e,m,v;
> m:=evalf(1+ceil(log(t)/log(p^h)));
> print(m);
> f:=x->convert(series(sum((v[h]^((p^(h*i)-1)/(p^h-1)))*
  x^(p^(h*i))/(p^i), i=0..m),x=0,t+1) , polynom);
> # f is the logarithm
> print(f(x));
> latex(f(x));
> logF:=powpoly(f(x),x);
> expF:=reversion(logF);
> e:=x->simplify(tpsform(expF,x,t));
> # e is the inverse of the logarithm
> print(e(x));
> latex(e(x));
> print(sort( simplify( mtaylor( subs(z=f(x)+f(y),e(z)),
  [x,y], t)) mod p, [x,y]));
> latex(sort( simplify( mtaylor( subs(z=f(x)+f(y),e(z)),
  [x,y], t)) mod p, [x,y]));
```



```
> end proc:
> MKfgl(2,2,33);
```

The results of these computations are that logarithms $\log_{\Delta^2}(x)$ and $\log_{K(2)}(x)$ at $p=2$ equal

$$x + 1/2\, x^4 + 1/4\, x^{16} + 1/8\, x^{64}$$

$$x + 1/2\, v_2 x^4 + 1/4\, {v_2}^5 x^{16}$$

The formal group law $F_{K(2)}(x,y)$ at $p=2$ equals

$$x+y$$
$$+v_2x^2y^2$$
$$+{v_2}^3x^6y^4 + {v_2}^3x^4y^6$$
$$+{v_2}^5x^{12}y^4 + {v_2}^5x^4y^{12}$$
$$+{v_2}^7x^{14}y^8 + {v_2}^7x^{12}y^{10} + {v_2}^7x^{10}y^{12} + {v_2}^7x^8y^{14}$$
$${v_2}^9x^{20}y^8 + {v_2}^9x^8y^{20}$$

Some values of the n-series for $F_{K(2)}(x,y)$ at $p=2$ are:

$$[2]_{K(2)}(x) = (v_2x^4 + O(x^{34}))$$
$$[3]_{K(2)}(x) = (x + v_2x^4 + {v_2}^3x^{10} + {v_2}^7x^{22} + O(x^{34}))$$
$$[4]_{K(2)}(x) = ({v_2}^5x^{16} + O(x^{34}))$$
$$[5]_{K(2)}(x) = (x + {v_2}^5x^{16} + O(x^{34}))$$
$$[6]_{K(2)}(x) = (v_2x^4 + {v_2}^5x^{16} + O(x^{34}))$$
$$[7]_{K(2)}(x) = (x + v_2x^4 + {v_2}^3x^{10} + {v_2}^5x^{16} + {v_2}^7x^{22} + O(x^{34}))$$
$$[8]_{K(2)}(x) = (O(x^{34}))$$
$$[9]_{K(2)}(x) = (x + O(x^{34}))$$
$$[10]_{K(2)}(x) = (v_2x^4 + O(x^{34}))$$
$$[11]_{K(2)}(x) = (x + v_2x^4 + {v_2}^3x^{10} + {v_2}^7x^{22} + O(x^{34}))$$
$$[12]_{K(2)}(x) = ({v_2}^5x^{16} + O(x^{34}))$$
$$[13]_{K(2)}(x) = (x + {v_2}^5x^{16} + O(x^{34}))$$
$$[14]]_{K(2)}(x) = (v_2x^4 + {v_2}^5x^{16} + O(x^{34}))$$
$$[15]_{K(2)}(x) = (x + v_2x^4 + {v_2}^3x^{10} + {v_2}^5x^{16} + {v_2}^7x^{22} + O(x^{34}))$$
$$[16]]_{K(2)}(x) = (O(x^{34}))$$

8. Examples of 3-typical formal group laws

8.1. $F_{BP}(x,y)$ **at** $p = 3$ **over** BP_***.** We use c_n to denote $[\mathbb{C}P^n] \in BP^*$.

```
> restart: with(powseries):
> BP:=proc(p,d) # p is the prime, d is the total degree
> local f_BP,logBP,expBP,e_BP,F_BP,t;
> # c_n is [CP^n]
> t:=evalf(1+ceil(log(d-1)/log(p)));
> f_BP:=x->sum(c[(p^i-1)]*x^(p^i)/p^i,i=0..t);
> print(f_BP(x));
> latex(f_BP(x));
> logBP:=powpoly(f_BP(x),x);
> expBP:=reversion(logBP);
> e_BP:=x->convert(simplify(tpsform(expBP,x,d+2)),polynom);
> F_BP:=(x,y)->sort(simplify(mtaylor(subs(z=f_BP(x)+f_BP(y),
  e_BP(z)),[x,y],d+1)), [x,y]);
> print(F_BP(x,y));
> latex(F_BP(x,y));
> end proc:
> BP(3,27);
```

The results of these computations are that logarithm $\log_{BP}(x)$ at $p = 3$ equals

$$x + 1/3\,c_2x^3 + 1/9\,c_8x^9 + 1/27\,c_{26}x^{27} + \tfrac{1}{81}\,c_{80}x^{81}$$

The formal group law $F_{BP}(x,y)$ at $p = 3$ equals

$$x + y$$

$$-c_2x^2y - c_2xy^2$$

$$+c_2{}^2x^4y + 3\,c_2{}^2x^3y^2 + 3\,c_2{}^2x^2y^3 + c_2{}^2xy^4$$

$$-c_2{}^3x^6y - 6\,c_2{}^3x^5y^2 - 13\,c_2{}^3x^4y^3 - 13\,c_2{}^3x^3y^4 - 6\,c_2{}^3x^2y^5 - c_2{}^3xy^6$$

$$-c_8x^8y + c_2{}^4x^8y - 4\,c_8x^7y^2 + 10\,c_2{}^4x^7y^2 - \tfrac{28}{3}\,c_8x^6y^3 + \tfrac{109}{3}\,c_2{}^4x^6y^3 - 14\,c_8x^5y^4 + 66\,c_2{}^4x^5y^4 + 66\,c_2{}^4x^4y^5 - 14\,c_8x^4y^5 - \tfrac{28}{3}\,c_8x^3y^6 + \tfrac{109}{3}\,c_2{}^4x^3y^6 + 10\,c_2{}^4x^2y^7 - 4\,c_8x^2y^7 + c_2{}^4xy^8 - c_8xy^8$$

$$-c_2{}^5x^{10}y + 2\,c_8c_2x^{10}y + 15\,c_8c_2x^9y^2 - 15\,c_2{}^5x^9y^2 - \tfrac{244}{3}\,c_2{}^5x^8y^3 + \tfrac{163}{3}\,c_8c_2x^8y^3 - \tfrac{680}{3}\,c_2{}^5x^7y^4 + \tfrac{362}{3}\,c_8c_2x^7y^4 - \tfrac{1108}{3}\,c_2{}^5x^6y^5 + \tfrac{532}{3}\,c_8c_2x^6y^5 - \tfrac{1108}{3}\,c_2{}^5x^5y^6 + \tfrac{532}{3}\,c_8c_2x^5y^6 + \tfrac{362}{3}\,c_8c_2x^4y^7 - \tfrac{680}{3}\,c_2{}^5x^4y^7 + \tfrac{163}{3}\,c_8c_2x^3y^8 - \tfrac{244}{3}\,c_2{}^5x^3y^8 + 15\,c_8c_2x^2y^9 - 15\,c_2{}^5x^2y^9 + 2\,c_8c_2xy^{10} - c_2{}^5xy^{10}$$

$$+c_2{}^6x^{12}y - 3\,c_8c_2{}^2x^{12}y + 21\,c_2{}^6x^{11}y^2 - 36\,c_8c_2{}^2x^{11}y^2 - \tfrac{568}{3}\,c_8c_2{}^2x^{10}y^3 + \tfrac{475}{3}\,c_2{}^6x^{10}y^3 + 620\,c_2{}^6x^9y^4 - 590\,c_8c_2{}^2x^9y^4 - \tfrac{3637}{3}\,c_8c_2{}^2x^8y^5 + \tfrac{4375}{3}\,c_2{}^6x^8y^5 - \tfrac{5164}{3}\,c_8c_2{}^2x^7y^6 + \tfrac{6616}{3}\,c_2{}^6x^7y^6 - \tfrac{5164}{3}\,c_8c_2{}^2x^6y^7 + \tfrac{6616}{3}\,c_2{}^6x^6y^7 + \tfrac{4375}{3}\,c_2{}^6x^5y^8 - \tfrac{3637}{3}\,c_8c_2{}^2x^5y^8 + 620\,c_2{}^6x^4y^9 - 590\,c_8c_2{}^2x^4y^9 + \tfrac{475}{3}\,c_2{}^6x^3y^{10} - \tfrac{568}{3}\,c_8c_2{}^2x^3y^{10} + 21\,c_2{}^6x^2y^{11} - 36\,c_8c_2{}^2x^2y^{11} + c_2{}^6xy^{12} - 3\,c_8c_2{}^2xy^{12}$$

$$-c_2{}^7x^{14}y + 4\,c_8c_2{}^3x^{14}y + 70\,c_8c_2{}^3x^{13}y^2 - 28\,c_2{}^7x^{13}y^2 + \tfrac{1517}{3}\,c_8c_2{}^3x^{12}y^3 - \tfrac{839}{3}\,c_2{}^7x^{12}y^3 + 2111\,c_8c_2{}^3x^{11}y^4 - 1456\,c_2{}^7x^{11}y^4 - \tfrac{13846}{3}\,c_2{}^7x^{10}y^5 + \tfrac{17350}{3}\,c_8c_2{}^3x^{10}y^5 + \tfrac{33137}{3}\,c_8c_2{}^3x^9y^6 - \tfrac{28901}{3}\,c_2{}^7x^9y^6 - \tfrac{41383}{3}\,c_2{}^7x^8y^7 + \tfrac{45493}{3}\,c_8c_2{}^3x^8y^7 + \tfrac{45493}{3}\,c_8c_2{}^3x^7y^8 - \tfrac{41383}{3}\,c_2{}^7x^7y^8 - \tfrac{28901}{3}\,c_2{}^7x^6y^9 +$$

$$\tfrac{33137}{3}\,c_8c_2{}^3x^6y^9 + \tfrac{17350}{3}\,c_8c_2{}^3x^5y^{10} - \tfrac{13846}{3}\,c_2{}^7x^5y^{10} + 2111\,c_8c_2{}^3x^4y^{11} - 1456\,c_2{}^7x^4y^{11} - \tfrac{839}{3}\,c_2{}^7x^3y^{12} + \tfrac{1517}{3}\,c_8c_2{}^3x^3y^{12} + 70\,c_8c_2{}^3x^2y^{13} - 28\,c_2{}^7x^2y^{13} - c_2{}^7xy^{14} + 4\,c_8c_2{}^3xy^{14}$$

$$+c_2{}^8x^{16}y + c_8{}^2x^{16}y - 5\,c_8c_2{}^4x^{16}y + 36\,c_2{}^8x^{15}y^2 + 12\,c_8{}^2x^{15}y^2 - 120\,c_8c_2{}^4x^{15}y^2 + \tfrac{208}{3}\,c_8{}^2x^{14}y^3 - 1142\,c_8c_2{}^4x^{14}y^3 + \tfrac{1379}{3}\,c_2{}^8x^{14}y^3 + \tfrac{9184}{3}\,c_2{}^8x^{13}y^4 - 6160\,c_8c_2{}^4x^{13}y^4 + \tfrac{770}{3}\,c_8{}^2x^{13}y^4 + 12502\,c_2{}^8x^{12}y^5 - \tfrac{65050}{3}\,c_8c_2{}^4x^{12}y^5 + \tfrac{2044}{3}\,c_8{}^2x^{12}y^5 - \tfrac{160312}{3}\,c_8c_2{}^4x^{11}y^6 + 1372\,c_8{}^2x^{11}y^6 + \tfrac{102235}{3}\,c_2{}^8x^{11}y^6 - 95830\,c_8c_2{}^4x^{10}y^7 + 2160\,c_8{}^2x^{10}y^7 + 65058\,c_2{}^8x^{10}y^7 + \tfrac{268043}{3}\,c_2{}^8x^9y^8 + 2701\,c_8{}^2x^9y^8 - \tfrac{383171}{3}\,c_8c_2{}^4x^9y^8 + 2701\,c_8{}^2x^8y^9 + \tfrac{268043}{3}\,c_2{}^8x^8y^9 - \tfrac{383171}{3}\,c_8c_2{}^4x^8y^9 + 2160\,c_8{}^2x^7y^{10} + 65058\,c_2{}^8x^7y^{10} - 95830\,c_8c_2{}^4x^7y^{10} - \tfrac{160312}{3}\,c_8c_2{}^4x^6y^{11} + 1372\,c_8{}^2x^6y^{11} + \tfrac{102235}{3}\,c_2{}^8x^6y^{11} + \tfrac{2044}{3}\,c_8{}^2x^5y^{12} + 12502\,c_2{}^8x^5y^{12} - \tfrac{65050}{3}\,c_8c_2{}^4x^5y^{12} - 6160\,c_8c_2{}^4x^4y^{13} + \tfrac{770}{3}\,c_8{}^2x^4y^{13} + \tfrac{9184}{3}\,c_2{}^8x^4y^{13} - 1142\,c_8c_2{}^4x^3y^{14} + \tfrac{208}{3}\,c_8{}^2x^3y^{14} + \tfrac{1379}{3}\,c_2{}^8x^3y^{14} - 120\,c_8c_2{}^4x^2y^{15} + 36\,c_2{}^8x^2y^{15} + 12\,c_8{}^2x^2y^{15} - 5\,c_8c_2{}^4xy^{16} + c_8{}^2xy^{16} + c_2{}^8xy^{16}$$

$$-3\,c_2c_8{}^2x^{18}y + 6\,c_8c_2{}^5x^{18}y - c_2{}^9x^{18}y + 189\,c_8c_2{}^5x^{17}y^2 - 54\,c_2c_8{}^2x^{17}y^2 - 45\,c_2{}^9x^{17}y^2 - \tfrac{2144}{3}\,c_2{}^9x^{16}y^3 + \tfrac{6883}{3}\,c_8c_2{}^5x^{16}y^3 - \tfrac{1289}{3}\,c_2c_8{}^2x^{16}y^3 - 5916\,c_2{}^9x^{15}y^4 - 2092\,c_2c_8{}^2x^{15}y^4 + 15544\,c_8c_2{}^5x^{15}y^4 + \tfrac{204974}{3}\,c_8c_2{}^5x^{14}y^5 - \tfrac{21296}{3}\,c_2c_8{}^2x^{14}y^5 - 30142\,c_2{}^9x^{14}y^5 - \tfrac{161560}{9}\,c_2c_8{}^2x^{13}y^6 - \tfrac{930034}{9}\,c_2{}^9x^{13}y^6 + \tfrac{1895096}{9}\,c_8c_2{}^5x^{13}y^6 - \tfrac{2261560}{9}\,c_2{}^9x^{12}y^7 + \tfrac{4281014}{9}\,c_8c_2{}^5x^{12}y^7 - \tfrac{316276}{9}\,c_2c_8{}^2x^{12}y^7 - \tfrac{1342564}{3}\,c_2{}^9x^{11}y^8 + \tfrac{2426347}{3}\,c_8c_2{}^5x^{11}y^8 - 54446\,c_2c_8{}^2x^{11}y^8 + \tfrac{9458443}{9}\,c_8c_2{}^5x^{10}y^9 - \tfrac{608258}{9}\,c_2c_8{}^2x^{10}y^9 - \tfrac{5352002}{9}\,c_2{}^9x^{10}y^9 - \tfrac{5352002}{9}\,c_2{}^9x^9y^{10} + \tfrac{9458443}{9}\,c_8c_2{}^5x^9y^{10} - \tfrac{608258}{9}\,c_2c_8{}^2x^9y^{10} - 54446\,c_2c_8{}^2x^8y^{11} + \tfrac{2426347}{3}\,c_8c_2{}^5x^8y^{11} - \tfrac{1342564}{3}\,c_2{}^9x^8y^{11} + \tfrac{4281014}{9}\,c_8c_2{}^5x^7y^{12} - \tfrac{316276}{9}\,c_2c_8{}^2x^7y^{12} - \tfrac{2261560}{9}\,c_2{}^9x^7y^{12} - \tfrac{930034}{9}\,c_2{}^9x^6y^{13} - \tfrac{161560}{9}\,c_2c_8{}^2x^6y^{13} + \tfrac{1895096}{9}\,c_8c_2{}^5x^6y^{13} + \tfrac{204974}{3}\,c_8c_2{}^5x^5y^{14} - 30142\,c_2{}^9x^5y^{14} - \tfrac{21296}{3}\,c_2c_8{}^2x^5y^{14} + 15544\,c_8c_2{}^5x^4y^{15} - 2092\,c_2c_8{}^2x^4y^{15} - 5916\,c_2{}^9x^4y^{15} - \tfrac{1289}{3}\,c_2c_8{}^2x^3y^{16} + \tfrac{6883}{3}\,c_8c_2{}^5x^3y^{16} - \tfrac{2144}{3}\,c_2{}^9x^3y^{16} - 45\,c_2{}^9x^2y^{17} - 54\,c_2c_8{}^2x^2y^{17} + 189\,c_8c_2{}^5x^2y^{17} - 3\,c_2c_8{}^2xy^{18} - c_2{}^9xy^{18} + 6\,c_8c_2{}^5xy^{18}$$

$$-7\,c_8c_2{}^6x^{20}y + c_2{}^{10}x^{20}y + 6\,c_2{}^2c_8{}^2x^{20}y - 280\,c_8c_2{}^6x^{19}y^2 + 55\,c_2{}^{10}x^{19}y^2 + 150\,c_2{}^2c_8{}^2x^{19}y^2 - 4226\,c_8c_2{}^6x^{18}y^3 + 1063\,c_2{}^{10}x^{18}y^3 + 1569\,c_2{}^2c_8{}^2x^{18}y^3 + 10695\,c_2{}^{10}x^{17}y^4 - 35154\,c_8c_2{}^6x^{17}y^4 + 9729\,c_2{}^2c_8{}^2x^{17}y^4 + 41206\,c_2{}^2c_8{}^2x^{16}y^5 + 66352\,c_2{}^{10}x^{16}y^5 - 188664\,c_8c_2{}^6x^{16}y^5 - \tfrac{2129272}{3}\,c_8c_2{}^6x^{15}y^6 + 278370\,c_2{}^{10}x^{15}y^6 + \tfrac{385228}{3}\,c_2{}^2c_8{}^2x^{15}y^6 + \tfrac{2767888}{9}\,c_2{}^2c_8{}^2x^{14}y^7 + \tfrac{7516030}{9}\,c_2{}^{10}x^{14}y^7 - \tfrac{17689262}{9}\,c_8c_2{}^6x^{14}y^7 + \tfrac{5232925}{9}\,c_2{}^2c_8{}^2x^{13}y^8 + \tfrac{16706008}{9}\,c_2{}^{10}x^{13}y^8 - \tfrac{37172261}{9}\,c_8c_2{}^6x^{13}y^8 + \tfrac{9379840}{3}\,c_2{}^{10}x^{12}y^9 + 882097\,c_2{}^2c_8{}^2x^{12}y^9 - \tfrac{20139976}{3}\,c_8c_2{}^6x^{12}y^9 + \tfrac{36405554}{9}\,c_2{}^{10}x^{11}y^{10} + \tfrac{9757046}{9}\,c_2{}^2c_8{}^2x^{11}y^{10} - \tfrac{76826554}{9}\,c_8c_2{}^6x^{11}y^{10} + \tfrac{9757046}{9}\,c_2{}^2c_8{}^2x^{10}y^{11} - \tfrac{76826554}{9}\,c_8c_2{}^6x^{10}y^{11} + \tfrac{36405554}{9}\,c_2{}^{10}x^{10}y^{11} - \tfrac{20139976}{3}\,c_8c_2{}^6x^9y^{12} + \tfrac{9379840}{3}\,c_2{}^{10}x^9y^{12} + 882097\,c_2{}^2c_8{}^2x^9y^{12} + \tfrac{16706008}{9}\,c_2{}^{10}x^8y^{13} - \tfrac{37172261}{9}\,c_8c_2{}^6x^8y^{13} + \tfrac{5232925}{9}\,c_2{}^2c_8{}^2x^8y^{13} + \tfrac{7516030}{9}\,c_2{}^{10}x^7y^{14} - \tfrac{17689262}{9}\,c_8c_2{}^6x^7y^{14} + \tfrac{2767888}{9}\,c_2{}^2c_8{}^2x^7y^{14} + 278370\,c_2{}^{10}x^6y^{15} - \tfrac{2129272}{3}\,c_8c_2{}^6x^6y^{15} + \tfrac{385228}{3}\,c_2{}^2c_8{}^2x^6y^{15} + 41206\,c_2{}^2c_8{}^2x^5y^{16} - 188664\,c_8c_2{}^6x^5y^{16} + 66352\,c_2{}^{10}x^5y^{16} + 10695\,c_2{}^{10}x^4y^{17} + 9729\,c_2{}^2c_8{}^2x^4y^{17} - 35154\,c_8c_2{}^6x^4y^{17} - 4226\,c_8c_2{}^6x^3y^{18} + 1063\,c_2{}^{10}x^3y^{18} + 1569\,c_2{}^2c_8{}^2x^3y^{18} - 280\,c_8c_2{}^6x^2y^{19} + 150\,c_2{}^2c_8{}^2x^2y^{19} + 55\,c_2{}^{10}x^2y^{19} + c_2{}^{10}xy^{20} - 7\,c_8c_2{}^6xy^{20} + 6\,c_2{}^2c_8{}^2xy^{20}$$

$$+8\,c_8c_2{}^7x^{22}y - 10\,c_2{}^3c_8{}^2x^{22}y - c_2{}^{11}x^{22}y - 330\,c_2{}^3c_8{}^2x^{21}y^2 + 396\,c_8c_2{}^7x^{21}y^2 - 66\,c_2{}^{11}x^{21}y^2 - 1525\,c_2{}^{11}x^{20}y^3 + \tfrac{21833}{3}\,c_8c_2{}^7x^{20}y^3 - \tfrac{13154}{3}\,c_2{}^3c_8{}^2x^{20}y^3 - \tfrac{101200}{3}\,c_2{}^3c_8{}^2x^{19}y^4 + \tfrac{218890}{3}\,c_8c_2{}^7x^{19}y^4 - 18315\,c_2{}^{11}x^{19}y^4 + 469476\,c_8c_2{}^7x^{18}y^5 - 135740\,c_2{}^{11}x^{18}y^5 - 174606\,c_2{}^3c_8{}^2x^{18}y^5 - 682401\,c_2{}^{11}x^{17}y^6 + 2115141\,c_8c_2{}^7x^{17}y^6 - 658566\,c_2{}^3c_8{}^2x^{17}y^6 + \tfrac{63275984}{9}\,c_8c_2{}^7x^{16}y^7 - \tfrac{22197604}{9}\,c_2{}^{11}x^{16}y^7 - \tfrac{17086090}{9}\,c_2{}^3c_8{}^2x^{16}y^7 + \tfrac{53484142}{3}\,c_8c_2{}^7x^{15}y^8 - 6656320\,c_2{}^{11}x^{15}y^8 - \tfrac{12933292}{3}\,c_2{}^3c_8{}^2x^{15}y^8 - \tfrac{23592868}{3}\,c_2{}^3c_8{}^2x^{14}y^9 - 13756530\,c_2{}^{11}x^{14}y^9 + \tfrac{105760327}{3}\,c_8c_2{}^7x^{14}y^9 - \tfrac{35008016}{3}\,c_2{}^3c_8{}^2x^{13}y^{10} + 55144054\,c_8c_2{}^7x^{13}y^{10} - \tfrac{66405130}{3}\,c_2{}^{11}x^{13}y^{10} - 28010940\,c_2{}^{11}x^{12}y^{11} + \tfrac{206480239}{3}\,c_8c_2{}^7x^{12}y^{11} - \tfrac{42570088}{3}\,c_2{}^3c_8{}^2x^{12}y^{11} - \tfrac{42570088}{3}\,c_2{}^3c_8{}^2x^{11}y^{12} - 28010940\,c_2{}^{11}x^{11}y^{12} +$$

$\frac{206480239}{3}\,c_8{c_2}^7x^{11}y^{12} + 55144054\,c_8{c_2}^7x^{10}y^{13} - \frac{66405130}{3}\,{c_2}^{11}x^{10}y^{13} - \frac{35008016}{3}\,{c_2}^3{c_8}^2x^{10}y^{13} - \frac{23592868}{3}\,{c_2}^3{c_8}^2x^9y^{14} + \frac{105760327}{3}\,c_8{c_2}^7x^9y^{14} - 13756530\,{c_2}^{11}x^9y^{14} - \frac{12933292}{3}\,{c_2}^3{c_8}^2x^8y^{15} + \frac{53484142}{3}\,c_8{c_2}^7x^8y^{15} - 6656320\,{c_2}^{11}x^8y^{15} - \frac{17086090}{9}\,{c_2}^3{c_8}^2x^7y^{16} + \frac{63275984}{9}\,c_8{c_2}^7x^7y^{16} - \frac{22197604}{9}\,{c_2}^{11}x^7y^{16} - 682401\,{c_2}^{11}x^6y^{17} + 2115141\,c_8{c_2}^7x^6y^{17} - 658566\,{c_2}^3{c_8}^2x^6y^{17} + 469476\,c_8{c_2}^7x^5y^{18} - 135740\,{c_2}^{11}x^5y^{18} - 174606\,{c_2}^3{c_8}^2x^5y^{18} - 18315\,{c_2}^{11}x^4y^{19} - \frac{101200}{3}\,{c_2}^3{c_8}^2x^4y^{19} + \frac{218890}{3}\,c_8{c_2}^7x^4y^{19} + \frac{21833}{3}\,c_8{c_2}^7x^3y^{20} - \frac{13154}{3}\,{c_2}^3{c_8}^2x^3y^{20} - 1525\,{c_2}^{11}x^3y^{20} - 66\,{c_2}^{11}x^2y^{21} - 330\,{c_2}^3{c_8}^2x^2y^{21} + 396\,c_8{c_2}^7x^2y^{21} + 8\,c_8{c_2}^7xy^{22} - {c_2}^{11}xy^{22} - 10\,{c_2}^3{c_8}^2xy^{22}$

$-9\,c_8{c_2}^8x^{24}y + 15\,{c_2}^4{c_8}^2x^{24}y + {c_2}^{12}x^{24}y - {c_8}^3x^{24}y - 540\,c_8{c_2}^8x^{23}y^2 + 78\,{c_2}^{12}x^{23}y^2 - 24\,{c_8}^3x^{23}y^2 + 630\,{c_2}^4{c_8}^2x^{23}y^2 + 2123\,{c_2}^{12}x^{22}y^3 - \frac{760}{3}\,{c_8}^3x^{22}y^3 - \frac{35632}{3}\,c_8{c_2}^8x^{22}y^3 + \frac{31070}{3}\,{c_2}^4{c_8}^2x^{22}y^3 + 96800\,{c_2}^4{c_8}^2x^{21}y^4 + 29986\,{c_2}^{12}x^{21}y^4 - 141306\,c_8{c_2}^8x^{21}y^4 - 1650\,{c_8}^3x^{21}y^4 + 261404\,{c_2}^{12}x^{20}y^5 - \frac{22834}{3}\,{c_8}^3x^{20}y^5 - 1073800\,c_8{c_2}^8x^{20}y^5 + \frac{1804390}{3}\,{c_2}^4{c_8}^2x^{20}y^5 - \frac{240688}{9}\,{c_8}^3x^{19}y^6 + \frac{4645993}{3}\,{c_2}^{12}x^{19}y^6 - \frac{51338644}{9}\,c_8{c_2}^8x^{19}y^6 + \frac{24320390}{9}\,{c_2}^4{c_8}^2x^{19}y^6 - \frac{672736}{9}\,{c_8}^3x^{18}y^7 + \frac{59581852}{9}\,{c_2}^{12}x^{18}y^7 + \frac{27712330}{3}\,{c_2}^4{c_8}^2x^{18}y^7 - \frac{67142288}{3}\,c_8{c_2}^8x^{18}y^7 + 21246368\,{c_2}^{12}x^{17}y^8 + 24830205\,{c_2}^4{c_8}^2x^{17}y^8 - 67217790\,c_8{c_2}^8x^{17}y^8 - 170885\,{c_8}^3x^{17}y^8 - \frac{474943381}{3}\,c_8{c_2}^8x^{16}y^9 + \frac{160948660}{3}\,{c_2}^4{c_8}^2x^{16}y^9 + \frac{473396209}{9}\,{c_2}^{12}x^{16}y^9 - \frac{2929354}{9}\,{c_8}^3x^{16}y^9 - \frac{2675368648}{9}\,c_8{c_2}^8x^{15}y^{10} + \frac{307044386}{3}\,{c_2}^{12}x^{15}y^{10} + \frac{851102270}{9}\,{c_2}^4{c_8}^2x^{15}y^{10} - \frac{4706392}{9}\,{c_8}^3x^{15}y^{10} + \frac{411958270}{3}\,{c_2}^4{c_8}^2x^{14}y^{11} - \frac{2143336}{3}\,{c_8}^3x^{14}y^{11} + 158499770\,{c_2}^{12}x^{14}y^{11} - 449908688\,c_8{c_2}^8x^{14}y^{11} + \frac{590634160}{3}\,{c_2}^{12}x^{13}y^{12} - \frac{1657809496}{3}\,c_8{c_2}^8x^{13}y^{12} - 834120\,{c_8}^3x^{13}y^{12} + 165241370\,{c_2}^4{c_8}^2x^{13}y^{12} - 834120\,{c_8}^3x^{12}y^{13} - \frac{1657809496}{3}\,c_8{c_2}^8x^{12}y^{13} + 165241370\,{c_2}^4{c_8}^2x^{12}y^{13} + \frac{590634160}{3}\,{c_2}^{12}x^{12}y^{13} - \frac{2143336}{3}\,{c_8}^3x^{11}y^{14} + \frac{411958270}{3}\,{c_2}^4{c_8}^2x^{11}y^{14} - 449908688\,c_8{c_2}^8x^{11}y^{14} + 158499770\,{c_2}^{12}x^{11}y^{14} + \frac{851102270}{9}\,{c_2}^4{c_8}^2x^{10}y^{15} + \frac{307044386}{3}\,{c_2}^{12}x^{10}y^{15} - \frac{2675368648}{9}\,c_8{c_2}^8x^{10}y^{15} - \frac{4706392}{9}\,{c_8}^3x^{10}y^{15} + \frac{160948660}{3}\,{c_2}^4{c_8}^2x^9y^{16} - \frac{474943381}{3}\,c_8{c_2}^8x^9y^{16} - \frac{2929354}{9}\,{c_8}^3x^9y^{16} + \frac{473396209}{9}\,{c_2}^{12}x^9y^{16} + 24830205\,{c_2}^4{c_8}^2x^8y^{17} - 67217790\,c_8{c_2}^8x^8y^{17} - 170885\,{c_8}^3x^8y^{17} + 21246368\,{c_2}^{12}x^8y^{17} + \frac{27712330}{3}\,{c_2}^4{c_8}^2x^7y^{18} - \frac{672736}{9}\,{c_8}^3x^7y^{18} - \frac{67142288}{3}\,c_8{c_2}^8x^7y^{18} + \frac{59581852}{9}\,{c_2}^{12}x^7y^{18} - \frac{240688}{9}\,{c_8}^3x^6y^{19} - \frac{51338644}{9}\,c_8{c_2}^8x^6y^{19} + \frac{4645993}{3}\,{c_2}^{12}x^6y^{19} + \frac{24320390}{9}\,{c_2}^4{c_8}^2x^6y^{19} - \frac{22834}{3}\,{c_8}^3x^5y^{20} - 1073800\,c_8{c_2}^8x^5y^{20} + 261404\,{c_2}^{12}x^5y^{20} + \frac{1804390}{3}\,{c_2}^4{c_8}^2x^5y^{20} - 141306\,c_8{c_2}^8x^4y^{21} - 1650\,{c_8}^3x^4y^{21} + 29986\,{c_2}^{12}x^4y^{21} + 96800\,{c_2}^4{c_8}^2x^4y^{21} + \frac{31070}{3}\,{c_2}^4{c_8}^2x^3y^{22} + 2123\,{c_2}^{12}x^3y^{22} - \frac{35632}{3}\,c_8{c_2}^8x^3y^{22} - \frac{760}{3}\,{c_8}^3x^3y^{22} - 24\,{c_8}^3x^2y^{23} + 630\,{c_2}^4{c_8}^2x^2y^{23} + 78\,{c_2}^{12}x^2y^{23} - 540\,c_8{c_2}^8x^2y^{23} - {c_8}^3xy^{24} + {c_2}^{12}xy^{24} + 15\,{c_2}^4{c_8}^2xy^{24} - 9\,c_8{c_2}^8xy^{24}$

$-21\,{c_2}^5{c_8}^2x^{26}y + 10\,c_8{c_2}^9x^{26}y - c_{26}x^{26}y - {c_2}^{13}x^{26}y + 4\,c_2{c_8}^3x^{26}y - 91\,{c_2}^{13}x^{25}y^2 - 13\,c_{26}x^{25}y^2 + 715\,c_8{c_2}^9x^{25}y^2 + 130\,c_2{c_8}^3x^{25}y^2 - 1092\,{c_2}^5{c_8}^2x^{25}y^2 - 21751\,{c_2}^5{c_8}^2x^{24}y^3 - \frac{325}{3}\,c_{26}x^{24}y^3 - \frac{8644}{3}\,{c_2}^{13}x^{24}y^3 + \frac{5299}{3}\,c_2{c_8}^3x^{24}y^3 + \frac{55651}{3}\,c_8{c_2}^9x^{24}y^3 - 650\,c_{26}x^{23}y^4 + 14334\,c_2{c_8}^3x^{23}y^4 + 258470\,c_8{c_2}^9x^{23}y^4 - 47268\,{c_2}^{13}x^{23}y^4 - 242760\,{c_2}^5{c_8}^2x^{23}y^4 - 2990\,c_{26}x^{22}y^5 + 80536\,c_2{c_8}^3x^{22}y^5 - 1783586\,{c_2}^5{c_8}^2x^{22}y^5 - 478478\,{c_2}^{13}x^{22}y^5 + 2290420\,c_8{c_2}^9x^{22}y^5 - \frac{9885898}{3}\,{c_2}^{13}x^{21}y^6 - \frac{32890}{3}\,c_{26}x^{21}y^6 + 339064\,c_2{c_8}^3x^{21}y^6 - \frac{28244018}{3}\,{c_2}^5{c_8}^2x^{21}y^6 + \frac{42486862}{3}\,c_8{c_2}^9x^{21}y^6 - \frac{147745312}{9}\,{c_2}^{13}x^{20}y^7 + \frac{582254920}{9}\,c_8{c_2}^9x^{20}y^7 - 32890\,c_{26}x^{20}y^7 - \frac{339000566}{9}\,{c_2}^5{c_8}^2x^{20}y^7 + \frac{10099190}{9}\,c_2{c_8}^3x^{20}y^7 - \frac{1064719376}{9}\,{c_2}^5{c_8}^2x^{19}y^8 + \frac{2040464602}{9}\,c_8{c_2}^9x^{19}y^8 - \frac{554699002}{9}\,{c_2}^{13}x^{19}y^8 + \frac{27104699}{9}\,c_2{c_8}^3x^{19}y^8 - 82225\,c_{26}x^{19}y^8 - \frac{14535025318}{81}\,{c_2}^{13}x^{18}y^9 + \frac{542254717}{81}\,c_2{c_8}^3x^{18}y^9 - \frac{8066106847}{27}\,{c_2}^5{c_8}^2x^{18}y^9 + \frac{16888344169}{27}\,c_8{c_2}^9x^{18}y^9 - \frac{1562275}{9}\,c_{26}x^{18}y^9 + \frac{112554620}{9}\,c_2{c_8}^3x^{17}y^{10} - \frac{1850192714}{3}\,{c_2}^5{c_8}^2x^{17}y^{10} - 312455\,c_{26}x^{17}y^{10} - \frac{3720890888}{9}\,{c_2}^{13}x^{17}y^{10} + \frac{4150386260}{3}\,c_8{c_2}^9x^{17}y^{10} - \frac{3158650621}{3}\,{c_2}^5{c_8}^2x^{16}y^{11} + 2484551871\,c_8{c_2}^9x^{16}y^{11} + \frac{178490465}{9}\,c_2{c_8}^3x^{16}y^{11} - 482885\,c_{26}x^{16}y^{11} - \frac{6881448002}{9}\,{c_2}^{13}x^{16}y^{11} + \frac{725699044}{27}\,c_2{c_8}^3x^{15}y^{12} + \frac{32890530400}{9}\,c_8{c_2}^9x^{15}y^{12} - \frac{1931540}{3}\,c_{26}x^{15}y^{12} - \frac{13482233656}{9}\,{c_2}^5{c_8}^2x^{15}y^{12} - \frac{30947914612}{27}\,{c_2}^{13}x^{15}y^{12} - \frac{16063288376}{9}\,{c_2}^5{c_8}^2x^{14}y^{13} + \frac{39837945262}{9}\,c_8{c_2}^9x^{14}y^{13} + \frac{93777160}{3}\,c_2{c_8}^3x^{14}y^{13} - \frac{12612100610}{9}\,{c_2}^{13}x^{14}y^{13} - 742900\,c_{26}x^{14}y^{13} +$

$\frac{93777160}{3}\,c_2{c_8}^3x^{13}y^{14} - 742900\,c_{26}x^{13}y^{14} - \frac{16063288376}{9}\,{c_2}^5{c_8}^2x^{13}y^{14} - \frac{12612100610}{9}\,{c_2}^{13}x^{13}y^{14} + \frac{39837945262}{9}\,c_8{c_2}^9x^{13}y^{14} - \frac{13482233656}{9}\,{c_2}^5{c_8}^2x^{12}y^{15} + \frac{32890530400}{9}\,c_8{c_2}^9x^{12}y^{15} - \frac{1931540}{3}\,c_{26}x^{12}y^{15} + \frac{725699044}{27}\,c_2{c_8}^3x^{12}y^{15} - \frac{30947914612}{27}\,{c_2}^{13}x^{12}y^{15} - \frac{6881448002}{9}\,{c_2}^{13}x^{11}y^{16} + \frac{178490465}{9}\,c_2{c_8}^3x^{11}y^{16} + 2484551871\,c_8{c_2}^9x^{11}y^{16} - \frac{3158650621}{3}\,{c_2}^5{c_8}^2x^{11}y^{16} - 482885\,c_{26}x^{11}y^{16} - 312455\,c_{26}x^{10}y^{17} + \frac{112554620}{9}\,c_2{c_8}^3x^{10}y^{17} + \frac{4150386260}{3}\,c_8{c_2}^9x^{10}y^{17} - \frac{3720890888}{9}\,{c_2}^{13}x^{10}y^{17} - \frac{1850192714}{3}\,{c_2}^5{c_8}^2x^{10}y^{17} - \frac{14535025318}{81}\,{c_2}^{13}x^9y^{18} + \frac{16888344169}{27}\,c_8{c_2}^9x^9y^{18} + \frac{542254717}{81}\,c_2{c_8}^3x^9y^{18} - \frac{1562275}{9}\,c_{26}x^9y^{18} - \frac{8066106847}{27}\,{c_2}^5{c_8}^2x^9y^{18} + \frac{27104699}{9}\,c_2{c_8}^3x^8y^{19} - \frac{1064719376}{9}\,{c_2}^5{c_8}^2x^8y^{19} - \frac{554699002}{9}\,{c_2}^{13}x^8y^{19} + \frac{2040464602}{9}\,c_8{c_2}^9x^8y^{19} - 82225\,c_{26}x^8y^{19} + \frac{10099190}{9}\,c_2{c_8}^3x^7y^{20} - 32890\,c_{26}x^7y^{20} - \frac{147745312}{9}\,{c_2}^{13}x^7y^{20} + \frac{582254920}{9}\,c_8{c_2}^9x^7y^{20} - \frac{339000566}{9}\,{c_2}^5{c_8}^2x^7y^{20} - \frac{28244018}{3}\,{c_2}^5{c_8}^2x^6y^{21} - \frac{9885898}{3}\,{c_2}^{13}x^6y^{21} - \frac{32890}{3}\,c_{26}x^6y^{21} + 339064\,c_2{c_8}^3x^6y^{21} + \frac{42486862}{3}\,c_8{c_2}^9x^6y^{21} - 1783586\,{c_2}^5{c_8}^2x^5y^{22} - 478478\,{c_2}^{13}x^5y^{22} + 80536\,c_2{c_8}^3x^5y^{22} - 2990\,c_{26}x^5y^{22} + 2290420\,c_8{c_2}^9x^5y^{22} - 650\,c_{26}x^4y^{23} - 47268\,{c_2}^{13}x^4y^{23} + 258470\,c_8{c_2}^9x^4y^{23} - 242760\,{c_2}^5{c_8}^2x^4y^{23} + 14334\,c_2{c_8}^3x^4y^{23} - \frac{8644}{3}\,{c_2}^{13}x^3y^{24} + \frac{55651}{3}\,c_8{c_2}^9x^3y^{24} - 21751\,{c_2}^5{c_8}^2x^3y^{24} - \frac{325}{3}\,c_{26}x^3y^{24} + \frac{5299}{3}\,c_2{c_8}^3x^3y^{24} - 91\,{c_2}^{13}x^2y^{25} + 715\,c_8{c_2}^9x^2y^{25} + 130\,c_2{c_8}^3x^2y^{25} - 1092\,{c_2}^5{c_8}^2x^2y^{25} - 13\,c_{26}x^2y^{25} + 4\,c_2{c_8}^3xy^{26} - {c_2}^{13}xy^{26} - 21\,{c_2}^5{c_8}^2xy^{26} + 10\,c_8{c_2}^9xy^{26} - c_{26}xy^{26}$

Some values of the n-series for $F_{BP}(x,y)$ at $p = 3$ are

$[2]_{BP}(x) = (2\,x - 2\,c_2x^3 + 8\,{c_2}^2x^5 - 40\,{c_2}^3x^7 + (\frac{680}{3}\,{c_2}^4 - \frac{170}{3}\,c_8)x^9 + O(x^{11}))$

$[3]_{BP}(x) = (3\,x - 8\,c_2x^3 + 72\,{c_2}^2x^5 - 840\,{c_2}^3x^7 + (\frac{33560}{3}\,{c_2}^4 - \frac{6560}{3}\,c_8)x^9 + O(x^{11}))$

$[4]_{BP}(x) = (4\,x - 20\,c_2x^3 + 320\,{c_2}^2x^5 - 6720\,{c_2}^3x^7 + (\frac{484160}{3}\,{c_2}^4 - \frac{87380}{3}\,c_8)x^9 + O(x^{11}))$

$[5]_{BP}(x) = (5\,x - 40\,c_2x^3 + 1000\,{c_2}^2x^5 - 33000\,{c_2}^3x^7 + (\frac{3739000}{3}\,{c_2}^4 - \frac{651040}{3}\,c_8)x^9 + O(x^{11}))$

$[6]_{BP}(x) = (6\,x - 70\,c_2x^3 + 2520\,{c_2}^2x^5 - 120120\,{c_2}^3x^7 + (\frac{19666360}{3}\,{c_2}^4 - \frac{3359230}{3}\,c_8)x^9 + O(x^{11}))$

$[7]_{BP}(x) = (7\,x - 112\,c_2x^3 + 5488\,{c_2}^2x^5 - 356720\,{c_2}^3x^7 + (\frac{79658320}{3}\,{c_2}^4 - \frac{13451200}{3}\,c_8)x^9 + O(x^{11}))$

$[8]_{BP}(x) = (8\,x - 168\,c_2x^3 + 10752\,{c_2}^2x^5 - 913920\,{c_2}^3x^7 + (88972800\,{c_2}^4 - 14913080\,c_8)x^9 + O(x^{11}))$

$[9]_{BP}(x) = (9\,x - 240\,c_2x^3 + 19440\,{c_2}^2x^5 - 2093040\,{c_2}^3x^7 + (258125040\,{c_2}^4 - 43046720\,c_8)x^9 + O(x^{11}))$

8.2. $F_V(x,y)$ **at** $p = 3$ **over** $\mathbb{Z}[V]$**.** The first few terms of the universal 3-typical formal group law $F_V(x,y)$ are given in [Haz78, p.xxii], so we will be able to verify our answer.

Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> lambda[0]:=1:
> L:=(m,n)->{ seq(p*lambda[j]=add(lambda[i]*v[j-i]^(p^i),
  i=0..(j-1)),j=m..n) };
> # the inputs m and n are the lower and upper bounds for the
> # subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> assign(expand(%));
> p:=3:
> m:=28: # the highest degree on x in the logarithm
> q:=4: # the number of lambda[i]'s in the logarithm,
> # so that we know the logarithm to degree x^(p^q)
> f_V:=x->sum(lambda[i]*x^(p^i),i=0..q);
> f_V(x);
> latex(%);
> log_V:=powpoly(f_V(x),x);
> tpsform(log_V,x);
> exp_V:=reversion(log_V);
> tpsform(exp_V,x);
> e_V:=x->simplify(convert(tpsform(exp_V,x,m+1),polynom));
> F_V:=(x,y)->sort(simplify(mtaylor(subs(z=f_V(x)+f_V(y),
  e_V(z)),[x,y],m+1)),[x,y]);
> F_V(x,y);
> latex(%);
```

The result of these calculations may be compared to [Haz78, p.xxii]. The results of these computations are that the logarithm $\log_V(x)$ at $p = 3$ equals

$$x + 1/3\, v_1 x^3 + (1/3\, v_2 + 1/9\, {v_1}^4)x^9 + (1/3\, v_3 + 1/9\, v_1 {v_2}^3 + 1/9\, {v_1}^9 v_2 + 1/27\, {v_1}^{13})x^{27} + (1/3\, v_4 + 1/9\, v_1 {v_3}^3 + 1/9\, {v_2}^{10} + 1/27\, {v_2}^9 {v_1}^4 + 1/9\, {v_1}^{27} v_3 + 1/27\, {v_1}^{28} {v_2}^3 + 1/27\, {v_1}^{36} v_2 + \tfrac{1}{81}\, {v_1}^{40})x^{81}$$

and the formal group law $F_V(x,y)$ at $p = 3$ equals

$$x + y$$

$$-v_1 x^2 y - v_1 x y^2 +$$

$$+{v_1}^2 x^4 y + 3\, {v_1}^2 x^3 y^2 + 3\, {v_1}^2 x^2 y^3 + {v_1}^2 x y^4$$

$$-{v_1}^3 x^6 y - 6\, {v_1}^3 x^5 y^2 - 13\, {v_1}^3 x^4 y^3 - 13\, {v_1}^3 x^3 y^4 - 6\, {v_1}^3 x^2 y^5 - {v_1}^3 x y^6$$

$$-3\, v_2 x^8 y - 12\, v_2 x^7 y^2 + 6\, {v_1}^4 x^7 y^2 + 27\, {v_1}^4 x^6 y^3 - 28\, v_2 x^6 y^3 + 52\, {v_1}^4 x^5 y^4 - 42\, v_2 x^5 y^4 - 42\, v_2 x^4 y^5 + 52\, {v_1}^4 x^4 y^5 - 28\, v_2 x^3 y^6 + 27\, {v_1}^4 x^3 y^6 + 6\, {v_1}^4 x^2 y^7 - 12\, v_2 x^2 y^7 - 3\, v_2 x y^8$$

$$+6\, v_1 v_2 x^{10} y + {v_1}^5 x^{10} y + 45\, v_1 v_2 x^9 y^2 + 163\, v_1 v_2 x^8 y^3 - 27\, {v_1}^5 x^8 y^3 - 106\, {v_1}^5 x^7 y^4 + 362\, v_1 v_2 x^7 y^4 - 192\, {v_1}^5 x^6 y^5 + 532\, v_1 v_2 x^6 y^5 + 532\, v_1 v_2 x^5 y^6 - 192\, {v_1}^5 x^5 y^6 + 362\, v_1 v_2 x^4 y^7 - 106\, {v_1}^5 x^4 y^7 + 163\, v_1 v_2 x^3 y^8 - 27\, {v_1}^5 x^3 y^8 + 45\, v_1 v_2 x^2 y^9 + {v_1}^5 x y^{10} + 6\, v_1 v_2 x y^{10}$$

$$-2\, {v_1}^6 x^{12} y - 9\, {v_1}^2 v_2 x^{12} y - 108\, {v_1}^2 v_2 x^{11} y^2 - 15\, {v_1}^6 x^{11} y^2 - 568\, {v_1}^2 v_2 x^{10} y^3 - 31\, {v_1}^6 x^{10} y^3 + 30\, {v_1}^6 x^9 y^4 - 1770\, {v_1}^2 v_2 x^9 y^4 - 3637\, {v_1}^2 v_2 x^8 y^5 + 246\, {v_1}^6 x^8 y^5 + 484\, {v_1}^6 x^7 y^6 - 5164\, {v_1}^2 v_2 x^7 y^6 - 5164\, {v_1}^2 v_2 x^6 y^7 + 484\, {v_1}^6 x^6 y^7 + 246\, {v_1}^6 x^5 y^8 - 3637\, {v_1}^2 v_2 x^5 y^8 - 1770\, {v_1}^2 v_2 x^4 y^9 + 30\, {v_1}^6 x^4 y^9 - 568\, {v_1}^2 v_2 x^3 y^{10} - 31\, {v_1}^6 x^3 y^{10} - 15\, {v_1}^6 x^2 y^{11} - 108\, {v_1}^2 v_2 x^2 y^{11} - 9\, {v_1}^2 v_2 x y^{12} - 2\, {v_1}^6 x y^{12}$$

$$+3\, {v_1}^7 x^{14} y + 12\, {v_1}^3 v_2 x^{14} y + 42\, {v_1}^7 x^{13} y^2 + 210\, {v_1}^3 v_2 x^{13} y^2 + 226\, {v_1}^7 x^{12} y^3 + 1517\, {v_1}^3 v_2 x^{12} y^3 + 6333\, {v_1}^3 v_2 x^{11} y^4 + 655\, {v_1}^7 x^{11} y^4 + 17350\, {v_1}^3 v_2 x^{10} y^5 + 1168\, {v_1}^7 x^{10} y^5 + 33137\, {v_1}^3 v_2 x^9 y^6 + 1412\, {v_1}^7 x^9 y^6 + 45493\, {v_1}^3 v_2 x^8 y^7 + 1370\, {v_1}^7 x^8 y^7 + 1370\, {v_1}^7 x^7 y^8 + 45493\, {v_1}^3 v_2 x^7 y^8 + 33137\, {v_1}^3 v_2 x^6 y^9 + 1412\, {v_1}^7 x^6 y^9 + 17350\, {v_1}^3 v_2 x^5 y^{10} + 1168\, {v_1}^7 x^5 y^{10} + 655\, {v_1}^7 x^4 y^{11} + 6333\, {v_1}^3 v_2 x^4 y^{11} + 226\, {v_1}^7 x^3 y^{12} + 1517\, {v_1}^3 v_2 x^3 y^{12} + 42\, {v_1}^7 x^2 y^{13} + 210\, {v_1}^3 v_2 x^2 y^{13} + 12\, {v_1}^3 v_2 x y^{14} + 3\, {v_1}^7 x y^{14}$$

$$+9\, {v_2}^2 x^{16} y - 3\, {v_1}^8 x^{16} y - 9\, {v_1}^4 v_2 x^{16} y - 288\, {v_1}^4 v_2 x^{15} y^2 - 72\, {v_1}^8 x^{15} y^2 + 108\, {v_2}^2 x^{15} y^2 - 613\, {v_1}^8 x^{14} y^3 - 3010\, {v_1}^4 v_2 x^{14} y^3 + 624\, {v_2}^2 x^{14} y^3 - 16940\, {v_1}^4 v_2 x^{13} y^4 - 2842\, {v_1}^8 x^{13} y^4 + 2310\, {v_2}^2 x^{13} y^4 - 60962\, {v_1}^4 v_2 x^{12} y^5 + 6132\, {v_2}^2 x^{12} y^5 - 8500\, {v_1}^8 x^{12} y^5 + 12348\, {v_2}^2 x^{11} y^6 - 152080\, {v_1}^4 v_2 x^{11} y^6 - 17987\, {v_1}^8 x^{11} y^6 - 274530\, {v_1}^4 v_2 x^{10} y^7 - 28612\, {v_1}^8 x^{10} y^7 + 19440\, {v_2}^2 x^{10} y^7 - 35675\, {v_1}^8 x^9 y^8 - 366965\, {v_1}^4 v_2 x^9 y^8 + 24309\, {v_2}^2 x^9 y^8 + 24309\, {v_2}^2 x^8 y^9 - 366965\, {v_1}^4 v_2 x^8 y^9 - 35675\, {v_1}^8 x^8 y^9 - 28612\, {v_1}^8 x^7 y^{10} + 19440\, {v_2}^2 x^7 y^{10} - 274530\, {v_1}^4 v_2 x^7 y^{10} + 12348\, {v_2}^2 x^6 y^{11} - 152080\, {v_1}^4 v_2 x^6 y^{11} - 17987\, {v_1}^8 x^6 y^{11} - 60962\, {v_1}^4 v_2 x^5 y^{12} + 6132\, {v_2}^2 x^5 y^{12} - 8500\, {v_1}^8 x^5 y^{12} - 16940\, {v_1}^4 v_2 x^4 y^{13} - 2842\, {v_1}^8 x^4 y^{13} + 2310\, {v_2}^2 x^4 y^{13} - 3010\, {v_1}^4 v_2 x^3 y^{14} - 613\, {v_1}^8 x^3 y^{14} + 624\, {v_2}^2 x^3 y^{14} + 108\, {v_2}^2 x^2 y^{15} - 72\, {v_1}^8 x^2 y^{15} - 288\, {v_1}^4 v_2 x^2 y^{15} + 9\, {v_2}^2 x y^{16} - 9\, {v_1}^4 v_2 x y^{16} - 3\, {v_1}^8 x y^{16}$$

$$-27\, v_1 {v_2}^2 x^{18} y + 2\, {v_1}^9 x^{18} y + 90\, {v_1}^9 x^{17} y^2 + 243\, {v_1}^5 v_2 x^{17} y^2 - 486\, v_1 {v_2}^2 x^{17} y^2 + 1150\, {v_1}^9 x^{16} y^3 - 3867\, v_1 {v_2}^2 x^{16} y^3 + 4305\, {v_1}^5 v_2 x^{16} y^3 + 34080\, {v_1}^5 v_2 x^{15} y^4 + 7536\, {v_1}^9 x^{15} y^4 - 18828\, v_1 {v_2}^2 x^{15} y^4 + 162382\, {v_1}^5 v_2 x^{14} y^5 - 63888\, v_1 {v_2}^2 x^{14} y^5 + 31084\, {v_1}^9 x^{14} y^5 + 523992\, {v_1}^5 v_2 x^{13} y^6 - 161560\, v_1 {v_2}^2 x^{13} y^6 + 89278\, {v_1}^9 x^{13} y^6 + 189242\, {v_1}^9 x^{12} y^7 + 1216154\, {v_1}^5 v_2 x^{12} y^7 - 316276\, v_1 {v_2}^2 x^{12} y^7 + 2099671\, {v_1}^5 v_2 x^{11} y^8 - 490014\, v_1 {v_2}^2 x^{11} y^8 + 306815\, {v_1}^9 x^{11} y^8 + 2747309\, {v_1}^5 v_2 x^{10} y^9 - 608258\, v_1 {v_2}^2 x^{10} y^9 + 388687\, {v_1}^9 x^{10} y^9 + 388687\, {v_1}^9 x^9 y^{10} - 608258\, v_1 {v_2}^2 x^9 y^{10} + 2747309\, {v_1}^5 v_2 x^9 y^{10} - 490014\, v_1 {v_2}^2 x^8 y^{11} + 306815\, {v_1}^9 x^8 y^{11} + 2099671\, {v_1}^5 v_2 x^8 y^{11} - 316276\, v_1 {v_2}^2 x^7 y^{12} + 189242\, {v_1}^9 x^7 y^{12} + 1216154\, {v_1}^5 v_2 x^7 y^{12} + 89278\, {v_1}^9 x^6 y^{13} + 523992\, {v_1}^5 v_2 x^6 y^{13} - 161560\, v_1 {v_2}^2 x^6 y^{13} + 162382\, {v_1}^5 v_2 x^5 y^{14} - 63888\, v_1 {v_2}^2 x^5 y^{14} + 31084\, {v_1}^9 x^5 y^{14} - 18828\, v_1 {v_2}^2 x^4 y^{15} + 34080\, {v_1}^5 v_2 x^4 y^{15} + 7536\, {v_1}^9 x^4 y^{15} + 1150\, {v_1}^9 x^3 y^{16} + 4305\, {v_1}^5 v_2 x^3 y^{16} - 3867\, v_1 {v_2}^2 x^3 y^{16} + 243\, {v_1}^5 v_2 x^2 y^{17} + 90\, {v_1}^9 x^2 y^{17} - 486\, v_1 {v_2}^2 x^2 y^{17} + 2\, {v_1}^9 x y^{18} - 27\, v_1 {v_2}^2 x y^{18}$$

$$+15\, {v_1}^6 v_2 x^{20} y + 54\, {v_1}^2 {v_2}^2 x^{20} y + 60\, {v_1}^6 v_2 x^{19} y^2 - 75\, {v_1}^{10} x^{19} y^2 + 1350\, {v_1}^2 {v_2}^2 x^{19} y^2 - 3264\, {v_1}^6 v_2 x^{18} y^3 + 14121\, {v_1}^2 {v_2}^2 x^{18} y^3 - 1594\, {v_1}^{10} x^{18} y^3 + 87561\, {v_1}^2 {v_2}^2 x^{17} y^4 - 47088\, {v_1}^6 v_2 x^{17} y^4 - 14730\, {v_1}^{10} x^{17} y^4 - 81106\, {v_1}^{10} x^{16} y^5 - 318756\, {v_1}^6 v_2 x^{16} y^5 + 370854\, {v_1}^2 {v_2}^2 x^{16} y^5 - 1358816\, {v_1}^6 v_2 x^{15} y^6 + 1155684\, {v_1}^2 {v_2}^2 x^{15} y^6 - 302978\, {v_1}^{10} x^{15} y^6 + 2767888\, {v_1}^2 {v_2}^2 x^{14} y^7 - 4051162\, {v_1}^6 v_2 x^{14} y^7 - 822816\, {v_1}^{10} x^{14} y^7 + 5232925\, {v_1}^2 {v_2}^2 x^{13} y^8 - 8902137\, {v_1}^6 v_2 x^{13} y^8 - 1692592\, {v_1}^{10} x^{13} y^8 - 2704615\, {v_1}^{10} x^{12} y^9 + 7938873\, {v_1}^2 {v_2}^2 x^{12} y^9 - 14847394\, {v_1}^6 v_2 x^{12} y^9 - 19104154\, {v_1}^6 v_2 x^{11} y^{10} + 9757046\, {v_1}^2 {v_2}^2 x^{11} y^{10} - 3407106\, {v_1}^{10} x^{11} y^{10} - 19104154\, {v_1}^6 v_2 x^{10} y^{11} + 9757046\, {v_1}^2 {v_2}^2 x^{10} y^{11} - 3407106\, {v_1}^{10} x^{10} y^{11} - 2704615\, {v_1}^{10} x^9 y^{12} - 14847394\, {v_1}^6 v_2 x^9 y^{12} + 7938873\, {v_1}^2 {v_2}^2 x^9 y^{12} + 5232925\, {v_1}^2 {v_2}^2 x^8 y^{13} - 8902137\, {v_1}^6 v_2 x^8 y^{13} - 1692592\, {v_1}^{10} x^8 y^{13} - 822816\, {v_1}^{10} x^7 y^{14} + 2767888\, {v_1}^2 {v_2}^2 x^7 y^{14} - 4051162\, {v_1}^6 v_2 x^7 y^{14} - 1358816\, {v_1}^6 v_2 x^6 y^{15} - 302978\, {v_1}^{10} x^6 y^{15} + 1155684\, {v_1}^2 {v_2}^2 x^6 y^{15} + 370854\, {v_1}^2 {v_2}^2 x^5 y^{16} - 81106\, {v_1}^{10} x^5 y^{16} - 318756\, {v_1}^6 v_2 x^5 y^{16} - 14730\, {v_1}^{10} x^4 y^{17} - 47088\, {v_1}^6 v_2 x^4 y^{17} + 87561\, {v_1}^2 {v_2}^2 x^4 y^{17} - 1594\, {v_1}^{10} x^3 y^{18} + 14121\, {v_1}^2 {v_2}^2 x^3 y^{18} - 3264\, {v_1}^6 v_2 x^3 y^{18} - 75\, {v_1}^{10} x^2 y^{19} + 1350\, {v_1}^2 {v_2}^2 x^2 y^{19} + 60\, {v_1}^6 v_2 x^2 y^{19} + 15\, {v_1}^6 v_2 x y^{20} + 54\, {v_1}^2 {v_2}^2 x y^{20}$$

$$-3\,{v_1}^{11}x^{22}y - 36\,{v_1}^{7}v_2x^{22}y - 90\,{v_1}^{3}{v_2}^{2}x^{22}y - 792\,{v_1}^{7}v_2x^{21}y^2 - 2970\,{v_1}^{3}{v_2}^{2}x^{21}y^2 + 1368\,{v_1}^{11}x^{20}y^3 - 4475\,{v_1}^{7}v_2x^{20}y^3 - 39462\,{v_1}^{3}{v_2}^{2}x^{20}y^3 + 20915\,{v_1}^{11}x^{19}y^4 + 16490\,{v_1}^{7}v_2x^{19}y^4 - 303600\,{v_1}^{3}{v_2}^{2}x^{19}y^4 - 1571454\,{v_1}^{3}{v_2}^{2}x^{18}y^5 + 360792\,{v_1}^{7}v_2x^{18}y^5 + 159130\,{v_1}^{11}x^{18}y^5 - 5927094\,{v_1}^{3}{v_2}^{2}x^{17}y^6 + 2394027\,{v_1}^{7}v_2x^{17}y^6 + 774174\,{v_1}^{11}x^{17}y^6 - 17086090\,{v_1}^{3}{v_2}^{2}x^{16}y^7 + 9701268\,{v_1}^{7}v_2x^{16}y^7 + 2665810\,{v_1}^{11}x^{16}y^7 + 27617558\,{v_1}^{7}v_2x^{15}y^8 - 38799876\,{v_1}^{3}{v_2}^{2}x^{15}y^8 + 6860630\,{v_1}^{11}x^{15}y^8 + 58574591\,{v_1}^{7}v_2x^{14}y^9 - 70778604\,{v_1}^{3}{v_2}^{2}x^{14}y^9 + 13632623\,{v_1}^{11}x^{14}y^9 + 95416130\,{v_1}^{7}v_2x^{13}y^{10} + 21339672\,{v_1}^{11}x^{13}y^{10} - 105024048\,{v_1}^{3}{v_2}^{2}x^{13}y^{10} - 127710264\,{v_1}^{3}{v_2}^{2}x^{12}y^{11} + 26625777\,{v_1}^{11}x^{12}y^{11} + 121340063\,{v_1}^{7}v_2x^{12}y^{11} + 26625777\,{v_1}^{11}x^{11}y^{12} - 127710264\,{v_1}^{3}{v_2}^{2}x^{11}y^{12} + 121340063\,{v_1}^{7}v_2x^{11}y^{12} + 21339672\,{v_1}^{11}x^{10}y^{13} + 95416130\,{v_1}^{7}v_2x^{10}y^{13} - 105024048\,{v_1}^{3}{v_2}^{2}x^{10}y^{13} + 13632623\,{v_1}^{11}x^{9}y^{14} + 58574591\,{v_1}^{7}v_2x^{9}y^{14} - 70778604\,{v_1}^{3}{v_2}^{2}x^{9}y^{14} + 6860630\,{v_1}^{11}x^{8}y^{15} + 27617558\,{v_1}^{7}v_2x^{8}y^{15} - 38799876\,{v_1}^{3}{v_2}^{2}x^{8}y^{15} - 17086090\,{v_1}^{3}{v_2}^{2}x^{7}y^{16} + 2665810\,{v_1}^{11}x^{7}y^{16} + 9701268\,{v_1}^{7}v_2x^{7}y^{16} + 2394027\,{v_1}^{7}v_2x^{6}y^{17} + 774174\,{v_1}^{11}x^{6}y^{17} - 5927094\,{v_1}^{3}{v_2}^{2}x^{6}y^{17} + 159130\,{v_1}^{11}x^{5}y^{18} - 1571454\,{v_1}^{3}{v_2}^{2}x^{5}y^{18} + 360792\,{v_1}^{7}v_2x^{5}y^{18} + 16490\,{v_1}^{7}v_2x^{4}y^{19} + 20915\,{v_1}^{11}x^{4}y^{19} - 303600\,{v_1}^{3}{v_2}^{2}x^{4}y^{19} - 4475\,{v_1}^{7}v_2x^{3}y^{20} - 39462\,{v_1}^{3}{v_2}^{2}x^{3}y^{20} + 1368\,{v_1}^{11}x^{3}y^{20} - 792\,{v_1}^{7}v_2x^{2}y^{21} - 2970\,{v_1}^{3}{v_2}^{2}x^{2}y^{21} - 36\,{v_1}^{7}v_2xy^{22} - 90\,{v_1}^{3}{v_2}^{2}xy^{22} - 3\,{v_1}^{11}xy^{22}$$

$$+54\,{v_1}^{8}v_2x^{24}y + 6\,{v_1}^{12}x^{24}y + 108\,{v_1}^{4}{v_2}^{2}x^{24}y - 27\,{v_2}^{3}x^{24}y + 1944\,{v_1}^{8}v_2x^{23}y^2 + 144\,{v_1}^{12}x^{23}y^2 + 5022\,{v_1}^{4}{v_2}^{2}x^{23}y^2 - 648\,{v_2}^{3}x^{23}y^2 + 24228\,{v_1}^{8}v_2x^{22}y^3 + 349\,{v_1}^{12}x^{22}y^3 - 6840\,{v_2}^{3}x^{22}y^3 + 86370\,{v_1}^{4}{v_2}^{2}x^{22}y^3 + 826650\,{v_1}^{4}{v_2}^{2}x^{21}y^4 - 16170\,{v_1}^{12}x^{21}y^4 + 142032\,{v_1}^{8}v_2x^{21}y^4 - 44550\,{v_2}^{3}x^{21}y^4 + 318878\,{v_1}^{8}v_2x^{20}y^5 - 205506\,{v_2}^{3}x^{20}y^5 + 5207664\,{v_1}^{4}{v_2}^{2}x^{20}y^5 - 218544\,{v_1}^{12}x^{20}y^5 - 1480107\,{v_1}^{12}x^{19}y^6 - 1139976\,{v_1}^{8}v_2x^{19}y^6 + 23598326\,{v_1}^{4}{v_2}^{2}x^{19}y^6 - 722064\,{v_2}^{3}x^{19}y^6 + 81118782\,{v_1}^{4}{v_2}^{2}x^{18}y^7 - 12390364\,{v_1}^{8}v_2x^{18}y^7 - 2018208\,{v_2}^{3}x^{18}y^7 - 6597862\,{v_1}^{12}x^{18}y^7 + 218857950\,{v_1}^{4}{v_2}^{2}x^{17}y^8 - 21312102\,{v_1}^{12}x^{17}y^8 - 54210105\,{v_1}^{8}v_2x^{17}y^8 - 4613895\,{v_2}^{3}x^{17}y^8 - 8788062\,{v_2}^{3}x^{16}y^9 + 474057918\,{v_1}^{4}{v_2}^{2}x^{16}y^9 - 155975415\,{v_1}^{8}v_2x^{16}y^9 - 52390812\,{v_1}^{12}x^{16}y^9 - 14119176\,{v_2}^{3}x^{15}y^{10} + 836983094\,{v_1}^{4}{v_2}^{2}x^{15}y^{10} - 329094428\,{v_1}^{8}v_2x^{15}y^{10} - 100871068\,{v_1}^{12}x^{15}y^{10} + 1216584786\,{v_1}^{4}{v_2}^{2}x^{14}y^{11} - 19290024\,{v_2}^{3}x^{14}y^{11} - 154803940\,{v_1}^{12}x^{14}y^{11} - 532239532\,{v_1}^{8}v_2x^{14}y^{11} - 22521240\,{v_2}^{3}x^{13}y^{12} - 673868356\,{v_1}^{8}v_2x^{13}y^{12} + 1464651090\,{v_1}^{4}{v_2}^{2}x^{13}y^{12} - 191317862\,{v_1}^{12}x^{13}y^{12} + 1464651090\,{v_1}^{4}{v_2}^{2}x^{12}y^{13} - 191317862\,{v_1}^{12}x^{12}y^{13} - 22521240\,{v_2}^{3}x^{12}y^{13} - 673868356\,{v_1}^{8}v_2x^{12}y^{13} + 1216584786\,{v_1}^{4}{v_2}^{2}x^{11}y^{14} - 19290024\,{v_2}^{3}x^{11}y^{14} - 154803940\,{v_1}^{12}x^{11}y^{14} - 532239532\,{v_1}^{8}v_2x^{11}y^{14} - 14119176\,{v_2}^{3}x^{10}y^{15} - 100871068\,{v_1}^{12}x^{10}y^{15} - 329094428\,{v_1}^{8}v_2x^{10}y^{15} + 836983094\,{v_1}^{4}{v_2}^{2}x^{10}y^{15} - 8788062\,{v_2}^{3}x^{9}y^{16} - 155975415\,{v_1}^{8}v_2x^{9}y^{16} - 52390812\,{v_1}^{12}x^{9}y^{16} + 474057918\,{v_1}^{4}{v_2}^{2}x^{9}y^{16} - 54210105\,{v_1}^{8}v_2x^{8}y^{17} - 21312102\,{v_1}^{12}x^{8}y^{17} + 218857950\,{v_1}^{4}{v_2}^{2}x^{8}y^{17} - 4613895\,{v_2}^{3}x^{8}y^{17} + 81118782\,{v_1}^{4}{v_2}^{2}x^{7}y^{18} - 12390364\,{v_1}^{8}v_2x^{7}y^{18} - 2018208\,{v_2}^{3}x^{7}y^{18} - 6597862\,{v_1}^{12}x^{7}y^{18} - 1139976\,{v_1}^{8}v_2x^{6}y^{19} - 1480107\,{v_1}^{12}x^{6}y^{19} + 23598326\,{v_1}^{4}{v_2}^{2}x^{6}y^{19} - 722064\,{v_2}^{3}x^{6}y^{19} - 205506\,{v_2}^{3}x^{5}y^{20} + 5207664\,{v_1}^{4}{v_2}^{2}x^{5}y^{20} + 318878\,{v_1}^{8}v_2x^{5}y^{20} - 218544\,{v_1}^{12}x^{5}y^{20} - 44550\,{v_2}^{3}x^{4}y^{21} - 16170\,{v_1}^{12}x^{4}y^{21} + 826650\,{v_1}^{4}{v_2}^{2}x^{4}y^{21} + 142032\,{v_1}^{8}v_2x^{4}y^{21} - 6840\,{v_2}^{3}x^{3}y^{22} + 24228\,{v_1}^{8}v_2x^{3}y^{22} + 349\,{v_1}^{12}x^{3}y^{22} + 86370\,{v_1}^{4}{v_2}^{2}x^{3}y^{22} + 5022\,{v_1}^{4}{v_2}^{2}x^{2}y^{23} - 648\,{v_2}^{3}x^{2}y^{23} + 1944\,{v_1}^{8}v_2x^{2}y^{23} + 144\,{v_1}^{12}x^{2}y^{23} + 6\,{v_1}^{12}xy^{24} + 108\,{v_1}^{4}{v_2}^{2}xy^{24} + 54\,{v_1}^{8}v_2xy^{24} - 27\,{v_2}^{3}xy^{24}$$

$$105\,v_1{v_2}^{3}x^{26}y - 9\,{v_1}^{13}x^{26}y - 63\,{v_1}^{9}v_2x^{26}y - 81\,{v_1}^{5}{v_2}^{2}x^{26}y - 9\,v_3x^{26}y - 3276\,{v_1}^{9}v_2x^{25}y^2 - 351\,{v_1}^{13}x^{25}y^2 - 117\,v_3x^{25}y^2 - 6318\,{v_1}^{5}{v_2}^{2}x^{25}y^2 + 3471\,v_1{v_2}^{3}x^{25}y^2 + 47366\,v_1{v_2}^{3}x^{24}y^3 - 975\,v_3x^{24}y^3 - 59283\,{v_1}^{9}v_2x^{24}y^3 - 4424\,{v_1}^{13}x^{24}y^3 - 148068\,{v_1}^{5}{v_2}^{2}x^{24}y^3 + 385068\,v_1{v_2}^{3}x^{23}y^4 - 1797822\,{v_1}^{5}{v_2}^{2}x^{23}y^4 - 5850\,v_3x^{23}y^4 - 17874\,{v_1}^{13}x^{23}y^4 - 554094\,{v_1}^{9}v_2x^{23}y^4 + 2165502\,v_1{v_2}^{3}x^{22}y^5 - 3114402\,{v_1}^{9}v_2x^{22}y^5 + 105902\,{v_1}^{13}x^{22}y^5 - 13877802\,{v_1}^{5}{v_2}^{2}x^{22}y^5 - 26910\,v_3x^{22}y^5 + 9121838\,v_1{v_2}^{3}x^{21}y^6 + 1780416\,{v_1}^{13}x^{21}y^6 - 10982488\,{v_1}^{9}v_2x^{21}y^6 - 75577326\,{v_1}^{5}{v_2}^{2}x^{21}y^6 - 98670\,v_3x^{21}y^6 + 30198900\,v_1{v_2}^{3}x^{20}y^7 - 296010\,v_3x^{20}y^7 - 21914884\,{v_1}^{9}v_2x^{20}y^7 - 308702996\,{v_1}^{5}{v_2}^{2}x^{20}y^7 + 11701358\,{v_1}^{13}x^{20}y^7 - 740025\,v_3x^{19}y^8 + 49712322\,{v_1}^{13}x^{19}y^8 - 2800026\,{v_1}^{9}v_2x^{19}y^8 - 983405279\,{v_1}^{5}{v_2}^{2}x^{19}y^8 + 81067422\,v_1{v_2}^{3}x^{19}y^8 + 153825690\,{v_1}^{13}x^{18}y^9 - 1562275\,v_3x^{18}y^9 - 2507950710\,{v_1}^{5}{v_2}^{2}x^{18}y^9 + 143744263\,{v_1}^{9}v_2x^{18}y^9 + 180230814\,v_1{v_2}^{3}x^{18}y^9 + 561618087\,{v_1}^{9}v_2x^{17}y^{10} - 2812095\,v_3x^{17}y^{10} - 5212914282\,{v_1}^{5}{v_2}^{2}x^{17}y^{10} + 336726495\,v_1{v_2}^{3}x^{17}y^{10} + 365492475\,{v_1}^{13}x^{17}y^{10} + 686412386\,{v_1}^{13}x^{16}y^{11} + 1313396181\,{v_1}^{9}v_2x^{16}y^{11} - 4345965\,v_3x^{16}y^{11} + 534022740\,v_1{v_2}^{3}x^{16}y^{11} - 8940480468\,{v_1}^{5}{v_2}^{2}x^{16}y^{11} + 1036492252\,{v_1}^{13}x^{15}y^{12} - 5794620\,v_3x^{15}y^{12} + 2215322504\,{v_1}^{9}v_2x^{15}y^{12} + 723767504\,v_1{v_2}^{3}x^{15}y^{12} - 12756534612\,{v_1}^{5}{v_2}^{2}x^{15}y^{12} + 841765740\,v_1{v_2}^{3}x^{14}y^{13} + 2849558950\,{v_1}^{9}v_2x^{14}y^{13} - 15219293936\,{v_1}^{5}{v_2}^{2}x^{14}y^{13} - 6686100\,v_3x^{14}y^{13} + 1270800184\,{v_1}^{13}x^{14}y^{13} + 2849558950\,{v_1}^{9}v_2x^{13}y^{14} - 15219293936\,{v_1}^{5}{v_2}^{2}x^{13}y^{14} + 841765740\,v_1{v_2}^{3}x^{13}y^{14} + 1270800184\,{v_1}^{13}x^{13}y^{14} - 6686100\,v_3x^{13}y^{14} - 5794620\,v_3x^{12}y^{15} + 723767504\,v_1{v_2}^{3}x^{12}y^{15} - 12756534612\,{v_1}^{5}{v_2}^{2}x^{12}y^{15} + 1036492252\,{v_1}^{13}x^{12}y^{15} + 2215322504\,{v_1}^{9}v_2x^{12}y^{15} + 534022740\,v_1{v_2}^{3}x^{11}y^{16} + 686412386\,{v_1}^{13}x^{11}y^{16} - 8940480468\,{v_1}^{5}{v_2}^{2}x^{11}y^{16} - 4345965\,v_3x^{11}y^{16} + 1313396181\,{v_1}^{9}v_2x^{11}y^{16} - 5212914282\,{v_1}^{5}{v_2}^{2}x^{10}y^{17} + 365492475\,{v_1}^{13}x^{10}y^{17} + 561618087\,{v_1}^{9}v_2x^{10}y^{17} - 2812095\,v_3x^{10}y^{17} + 336726495\,v_1{v_2}^{3}x^{10}y^{17} - 1562275\,v_3x^{9}y^{18} + 180230814\,v_1{v_2}^{3}x^{9}y^{18} - 2507950710\,{v_1}^{5}{v_2}^{2}x^{9}y^{18} + 153825690\,{v_1}^{13}x^{9}y^{18} + 143744263\,{v_1}^{9}v_2x^{9}y^{18} - 740025\,v_3x^{8}y^{19} + 49712322\,{v_1}^{13}x^{8}y^{19} - 983405279\,{v_1}^{5}{v_2}^{2}x^{8}y^{19} - 2800026\,{v_1}^{9}v_2x^{8}y^{19} + 81067422\,v_1{v_2}^{3}x^{8}y^{19} - 296010\,v_3x^{7}y^{20} - 308702996\,{v_1}^{5}{v_2}^{2}x^{7}y^{20} - 21914884\,{v_1}^{9}v_2x^{7}y^{20} + 30198900\,v_1{v_2}^{3}x^{7}y^{20} + 11701358\,{v_1}^{13}x^{7}y^{20} - 98670\,v_3x^{6}y^{21} + 9121838\,v_1{v_2}^{3}x^{6}y^{21} - 75577326\,{v_1}^{5}{v_2}^{2}x^{6}y^{21} - 10982488\,{v_1}^{9}v_2x^{6}y^{21} + 1780416\,{v_1}^{13}x^{6}y^{21} + 105902\,{v_1}^{13}x^{5}y^{22} + 2165502\,v_1{v_2}^{3}x^{5}y^{22} - 26910\,v_3x^{5}y^{22} - 3114402\,{v_1}^{9}v_2x^{5}y^{22} - 13877802\,{v_1}^{5}{v_2}^{2}x^{5}y^{22} + 385068\,v_1{v_2}^{3}x^{4}y^{23} - 5850\,v_3x^{4}y^{23} - 1797822\,{v_1}^{5}{v_2}^{2}x^{4}y^{23} - 17874\,{v_1}^{13}x^{4}y^{23} - 554094\,{v_1}^{9}v_2x^{4}y^{23} - 148068\,{v_1}^{5}{v_2}^{2}x^{3}y^{24} - 975\,v_3x^{3}y^{24} + 47366\,v_1{v_2}^{3}x^{3}y^{24} - 59283\,{v_1}^{9}v_2x^{3}y^{24} - 4424\,{v_1}^{13}x^{3}y^{24} - 3276\,{v_1}^{9}v_2x^{2}y^{25} + 3471\,v_1{v_2}^{3}x^{2}y^{25} - 351\,{v_1}^{13}x^{2}y^{25} - 117\,v_3x^{2}y^{25} - 6318\,{v_1}^{5}{v_2}^{2}x^{2}y^{25} + 105\,v_1{v_2}^{3}xy^{26} - 63\,{v_1}^{9}v_2xy^{26} - 81\,{v_1}^{5}{v_2}^{2}xy^{26} - 9\,v_3xy^{26} - 9\,{v_1}^{13}xy^{26}$$

Some values of the n-series for $F_V(x,y)$ at $p = 3$ are:

$$x + y$$

$$-{v_1}^{2}x^2y - {v_1}xy^2+$$

$$+{v_1}^{2}x^4y + 3\,{v_1}^{2}x^3y^2 + 3\,{v_1}^{2}x^2y^3 + {v_1}^{2}xy^4$$

$$-{v_1}^{3}x^6y - 6\,{v_1}^{3}x^5y^2 - 13\,{v_1}^{3}x^4y^3 - 13\,{v_1}^{3}x^3y^4 - 6\,{v_1}^{3}x^2y^5 - {v_1}^{3}xy^6$$

$$-3\,v_2x^8y - 12\,v_2x^7y^2 + 6\,{v_1}^{4}x^7y^2 + 27\,{v_1}^{4}x^6y^3 - 28\,v_2x^6y^3 + 52\,{v_1}^{4}x^5y^4 - 42\,v_2x^5y^4 - 42\,v_2x^4y^5 + 52\,{v_1}^{4}x^4y^5 - 28\,v_2x^3y^6 + 27\,{v_1}^{4}x^3y^6 + 6\,{v_1}^{4}x^2y^7 - 12\,v_2x^2y^7 - 3\,v_2xy^8$$

$$+6\,v_1{v_2}x^{10}y + {v_1}^{5}x^{10}y + 45\,v_1{v_2}x^9y^2 + 163\,v_1{v_2}x^8y^3 - 27\,{v_1}^{5}x^8y^3 - 106\,{v_1}^{5}x^7y^4 + 362\,v_1{v_2}x^7y^4 - 192\,{v_1}^{5}x^6y^5 + 532\,v_1{v_2}x^6y^5 + 532\,v_1{v_2}x^5y^6 - 192\,{v_1}^{5}x^5y^6 + 362\,v_1{v_2}x^4y^7 - 106\,{v_1}^{5}x^4y^7 + 163\,v_1{v_2}x^3y^8 - 27\,{v_1}^{5}x^3y^8 + 45\,v_1{v_2}x^2y^9 + {v_1}^{5}xy^{10} + 6\,v_1{v_2}xy^{10}$$

$$-2\,{v_1}^{6}x^{12}y - 9\,{v_1}^{2}v_2x^{12}y - 108\,{v_1}^{2}{v_2}x^{11}y^2 - 15\,{v_1}^{6}x^{11}y^2 - 568\,{v_1}^{2}{v_2}x^{10}y^3 - 31\,{v_1}^{6}x^{10}y^3 + 30\,{v_1}^{6}x^9y^4 - 1770\,{v_1}^{2}{v_2}x^9y^4 - 3637\,{v_1}^{2}{v_2}x^8y^5 + 246\,{v_1}^{6}x^8y^5 + 484\,{v_1}^{6}x^7y^6 - 5164\,{v_1}^{2}{v_2}x^7y^6 - 5164\,{v_1}^{2}{v_2}x^6y^7 + 484\,{v_1}^{6}x^6y^7 + 246\,{v_1}^{6}x^5y^8 - 3637\,{v_1}^{2}{v_2}x^5y^8 - 1770\,{v_1}^{2}{v_2}x^4y^9 + 30\,{v_1}^{6}x^4y^9 - 568\,{v_1}^{2}{v_2}x^3y^{10} - 31\,{v_1}^{6}x^3y^{10} - 15\,{v_1}^{6}x^2y^{11} - 108\,{v_1}^{2}{v_2}x^2y^{11} - 9\,{v_1}^{2}{v_2}xy^{12} - 2\,{v_1}^{6}xy^{12}$$

$$+3\,{v_1}^{7}x^{14}y + 12\,{v_1}^{3}{v_2}x^{14}y + 42\,{v_1}^{7}x^{13}y^2 + 210\,{v_1}^{3}{v_2}x^{13}y^2 + 226\,{v_1}^{7}x^{12}y^3 + 1517\,{v_1}^{3}{v_2}x^{12}y^3 + 6333\,{v_1}^{3}{v_2}x^{11}y^4 + 655\,{v_1}^{7}x^{11}y^4 + 17350\,{v_1}^{3}{v_2}x^{10}y^5 + 1168\,{v_1}^{7}x^{10}y^5 + 33137\,{v_1}^{3}{v_2}x^9y^6 + 1412\,{v_1}^{7}x^9y^6 + 45493\,{v_1}^{3}{v_2}x^8y^7 + 1370\,{v_1}^{7}x^8y^7 + 1370\,{v_1}^{7}x^7y^8 + 45493\,{v_1}^{3}{v_2}x^7y^8 + 33137\,{v_1}^{3}{v_2}x^6y^9 + 1412\,{v_1}^{7}x^6y^9 + 17350\,{v_1}^{3}{v_2}x^5y^{10} + 1168\,{v_1}^{7}x^5y^{10} + 655\,{v_1}^{7}x^4y^{11} + 6333\,{v_1}^{3}{v_2}x^4y^{11} + 226\,{v_1}^{7}x^3y^{12} + 1517\,{v_1}^{3}{v_2}x^3y^{12} + 42\,{v_1}^{7}x^2y^{13} + 210\,{v_1}^{3}{v_2}x^2y^{13} + 12\,{v_1}^{3}{v_2}xy^{14} + 3\,{v_1}^{7}xy^{14}$$

$$+9\,v_2^2x^{16}y - 3\,v_1^8x^{16}y - 9\,v_1^4v_2x^{16}y - 288\,v_1^4v_2x^{15}y^2 - 72\,v_1^8x^{15}y^2 + 108\,v_2^2x^{15}y^2 - 613\,v_1^8x^{14}y^3 - 3010\,v_1^4v_2x^{14}y^3 + 624\,v_2^2x^{14}y^3 - 16940\,v_1^4v_2x^{13}y^4 - 2842\,v_1^8x^{13}y^4 + 2310\,v_2^2x^{13}y^4 - 60962\,v_1^4v_2x^{12}y^5 + 6132\,v_2^2x^{12}y^5 - 8500\,v_1^8x^{12}y^5 + 12348\,v_2^2x^{11}y^6 - 152080\,v_1^4v_2x^{11}y^6 - 17987\,v_1^8x^{11}y^6 - 274530\,v_1^4v_2x^{10}y^7 - 28612\,v_1^8x^{10}y^7 + 19440\,v_2^2x^{10}y^7 - 35675\,v_1^8x^9y^8 - 366965\,v_1^4v_2x^9y^8 + 24309\,v_2^2x^9y^8 + 24309\,v_2^2x^8y^9 - 366965\,v_1^4v_2x^8y^9 - 35675\,v_1^8x^8y^9 - 28612\,v_1^8x^7y^{10} + 19440\,v_2^2x^7y^{10} - 274530\,v_1^4v_2x^7y^{10} + 12348\,v_2^2x^6y^{11} - 152080\,v_1^4v_2x^6y^{11} - 17987\,v_1^8x^6y^{11} - 60962\,v_1^4v_2x^5y^{12} + 6132\,v_2^2x^5y^{12} - 8500\,v_1^8x^5y^{12} - 16940\,v_1^4v_2x^4y^{13} - 2842\,v_1^8x^4y^{13} + 2310\,v_2^2x^4y^{13} - 3010\,v_1^4v_2x^3y^{14} - 613\,v_1^8x^3y^{14} + 624\,v_2^2x^3y^{14} + 108\,v_2^2x^2y^{15} - 72\,v_1^8x^2y^{15} - 288\,v_1^4v_2x^2y^{15} + 9\,v_2^2xy^{16} - 9\,v_1^4v_2xy^{16} - 3\,v_1^8xy^{16}$$

$$-27\,v_1v_2^2x^{18}y + 2\,v_1^9x^{18}y + 90\,v_1^9x^{17}y^2 + 243\,v_1^5v_2x^{17}y^2 - 486\,v_1v_2^2x^{17}y^2 + 1150\,v_1^9x^{16}y^3 - 3867\,v_1v_2^2x^{16}y^3 + 4305\,v_1^5v_2x^{16}y^3 + 34080\,v_1^5v_2x^{15}y^4 + 7536\,v_1^9x^{15}y^4 - 18828\,v_1v_2^2x^{15}y^4 + 162382\,v_1^5v_2x^{14}y^5 - 63888\,v_1v_2^2x^{14}y^5 + 31084\,v_1^9x^{14}y^5 + 523992\,v_1^5v_2x^{13}y^6 - 161560\,v_1v_2^2x^{13}y^6 + 89278\,v_1^9x^{13}y^6 + 189242\,v_1^9x^{12}y^7 + 1216154\,v_1^5v_2x^{12}y^7 - 316276\,v_1v_2^2x^{12}y^7 + 2099671\,v_1^5v_2x^{11}y^8 - 490014\,v_1v_2^2x^{11}y^8 + 306815\,v_1^9x^{11}y^8 + 2747309\,v_1^5v_2x^{10}y^9 - 608258\,v_1v_2^2x^{10}y^9 + 388687\,v_1^9x^{10}y^9 + 388687\,v_1^9x^9y^{10} - 608258\,v_1v_2^2x^9y^{10} + 2747309\,v_1^5v_2x^9y^{10} - 490014\,v_1v_2^2x^8y^{11} + 306815\,v_1^9x^8y^{11} + 2099671\,v_1^5v_2x^8y^{11} - 316276\,v_1v_2^2x^7y^{12} + 189242\,v_1^9x^7y^{12} + 1216154\,v_1^5v_2x^7y^{12} + 89278\,v_1^9x^6y^{13} + 523992\,v_1^5v_2x^6y^{13} - 161560\,v_1v_2^2x^6y^{13} + 162382\,v_1^5v_2x^5y^{14} - 63888\,v_1v_2^2x^5y^{14} + 31084\,v_1^9x^5y^{14} - 18828\,v_1v_2^2x^4y^{15} + 34080\,v_1^5v_2x^4y^{15} + 7536\,v_1^9x^4y^{15} + 1150\,v_1^9x^3y^{16} + 4305\,v_1^5v_2x^3y^{16} - 3867\,v_1v_2^2x^3y^{16} + 243\,v_1^5v_2x^2y^{17} + 90\,v_1^9x^2y^{17} - 486\,v_1v_2^2x^2y^{17} + 2\,v_1^9xy^{18} - 27\,v_1v_2^2xy^{18}$$

$$+15\,v_1^6v_2x^{20}y + 54\,v_1^2v_2^2x^{20}y + 60\,v_1^6v_2x^{19}y^2 - 75\,v_1^{10}x^{19}y^2 + 1350\,v_1^2v_2^2x^{19}y^2 - 3264\,v_1^6v_2x^{18}y^3 + 14121\,v_1^2v_2^2x^{18}y^3 - 1594\,v_1^{10}x^{18}y^3 + 87561\,v_1^2v_2^2x^{17}y^4 - 47088\,v_1^6v_2x^{17}y^4 - 14730\,v_1^{10}x^{17}y^4 - 81106\,v_1^{10}x^{16}y^5 - 318756\,v_1^6v_2x^{16}y^5 + 370854\,v_1^2v_2^2x^{16}y^5 - 1358816\,v_1^6v_2x^{15}y^6 + 1155684\,v_1^2v_2^2x^{15}y^6 - 302978\,v_1^{10}x^{15}y^6 + 2767888\,v_1^2v_2^2x^{14}y^7 - 4051162\,v_1^6v_2x^{14}y^7 - 822816\,v_1^{10}x^{14}y^7 + 5232925\,v_1^2v_2^2x^{13}y^8 - 8902137\,v_1^6v_2x^{13}y^8 - 1692592\,v_1^{10}x^{13}y^8 - 2704615\,v_1^{10}x^{12}y^9 + 7938873\,v_1^2v_2^2x^{12}y^9 - 14847394\,v_1^6v_2x^{12}y^9 - 19104154\,v_1^6v_2x^{11}y^{10} + 9757046\,v_1^2v_2^2x^{11}y^{10} - 3407106\,v_1^{10}x^{11}y^{10} - 19104154\,v_1^6v_2x^{10}y^{11} + 9757046\,v_1^2v_2^2x^{10}y^{11} - 3407106\,v_1^{10}x^{10}y^{11} - 2704615\,v_1^{10}x^9y^{12} - 14847394\,v_1^6v_2x^9y^{12} + 7938873\,v_1^2v_2^2x^9y^{12} + 5232925\,v_1^2v_2^2x^8y^{13} - 8902137\,v_1^6v_2x^8y^{13} - 1692592\,v_1^{10}x^8y^{13} - 822816\,v_1^{10}x^7y^{14} + 2767888\,v_1^2v_2^2x^7y^{14} - 4051162\,v_1^6v_2x^7y^{14} - 1358816\,v_1^6v_2x^6y^{15} - 302978\,v_1^{10}x^6y^{15} + 1155684\,v_1^2v_2^2x^6y^{15} + 370854\,v_1^2v_2^2x^5y^{16} - 81106\,v_1^{10}x^5y^{16} - 318756\,v_1^6v_2x^5y^{16} - 14730\,v_1^{10}x^4y^{17} - 47088\,v_1^6v_2x^4y^{17} + 87561\,v_1^2v_2^2x^4y^{17} - 1594\,v_1^{10}x^3y^{18} + 14121\,v_1^2v_2^2x^3y^{18} - 3264\,v_1^6v_2x^3y^{18} - 75\,v_1^{10}x^2y^{19} + 1350\,v_1^2v_2^2x^2y^{19} + 60\,v_1^6v_2x^2y^{19} + 15\,v_1^6v_2xy^{20} + 54\,v_1^2v_2^2xy^{20}$$

$$-3\,v_1^{11}x^{22}y - 36\,v_1^7v_2x^{22}y - 90\,v_1^3v_2^2x^{22}y - 792\,v_1^7v_2x^{21}y^2 - 2970\,v_1^3v_2^2x^{21}y^2 + 1368\,v_1^{11}x^{20}y^3 - 4475\,v_1^7v_2x^{20}y^3 - 39462\,v_1^3v_2^2x^{20}y^3 + 20915\,v_1^{11}x^{19}y^4 + 16490\,v_1^7v_2x^{19}y^4 - 303600\,v_1^3v_2^2x^{19}y^4 - 1571454\,v_1^3v_2^2x^{18}y^5 + 360792\,v_1^7v_2x^{18}y^5 + 159130\,v_1^{11}x^{18}y^5 - 5927094\,v_1^3v_2^2x^{17}y^6 + 2394027\,v_1^7v_2x^{17}y^6 + 774174\,v_1^{11}x^{17}y^6 - 17086090\,v_1^3v_2^2x^{16}y^7 + 9701268\,v_1^7v_2x^{16}y^7 + 2665810\,v_1^{11}x^{16}y^7 + 27617558\,v_1^7v_2x^{15}y^8 - 38799876\,v_1^3v_2^2x^{15}y^8 + 6860630\,v_1^{11}x^{15}y^8 + 58574591\,v_1^7v_2x^{14}y^9 - 70778604\,v_1^3v_2^2x^{14}y^9 + 13632623\,v_1^{11}x^{14}y^9 + 95416130\,v_1^7v_2x^{13}y^{10} + 21339672\,v_1^{11}x^{13}y^{10} - 105024048\,v_1^3v_2^2x^{13}y^{10} - 127710264\,v_1^3v_2^2x^{12}y^{11} + 26625777\,v_1^{11}x^{12}y^{11} + 121340063\,v_1^7v_2x^{12}y^{11} + 26625777\,v_1^{11}x^{11}y^{12} - 127710264\,v_1^3v_2^2x^{11}y^{12} + 121340063\,v_1^7v_2x^{11}y^{12} + 21339672\,v_1^{11}x^{10}y^{13} + 95416130\,v_1^7v_2x^{10}y^{13} - 105024048\,v_1^3v_2^2x^{10}y^{13} + 13632623\,v_1^{11}x^9y^{14} + 58574591\,v_1^7v_2x^9y^{14} - 70778604\,v_1^3v_2^2x^9y^{14} + 6860630\,v_1^{11}x^8y^{15} + 27617558\,v_1^7v_2x^8y^{15} - 38799876\,v_1^3v_2^2x^8y^{15} - 17086090\,v_1^3v_2^2x^7y^{16} + 2665810\,v_1^{11}x^7y^{16} + 9701268\,v_1^7v_2x^7y^{16} + 2394027\,v_1^7v_2x^6y^{17} + 774174\,v_1^{11}x^6y^{17} - 5927094\,v_1^3v_2^2x^6y^{17} +$$

$$159130\,v_1^{11}x^5y^{18} - 1571454\,v_1^3v_2^2x^5y^{18} + 360792\,v_1^7v_2x^5y^{18} + 16490\,v_1^7v_2x^4y^{19} + 20915\,v_1^{11}x^4y^{19} - 303600\,v_1^3v_2^2x^4y^{19} - 4475\,v_1^7v_2x^3y^{20} - 39462\,v_1^3v_2^2x^3y^{20} + 1368\,v_1^{11}x^3y^{20} - 792\,v_1^7v_2x^2y^{21} - 2970\,v_1^3v_2^2x^2y^{21} - 36\,v_1^7v_2xy^{22} - 90\,v_1^3v_2^2xy^{22} - 3\,v_1^{11}xy^{22}$$

$$+54\,v_1^8v_2x^{24}y + 6\,v_1^{12}x^{24}y + 108\,v_1^4v_2^2x^{24}y - 27\,v_2^3x^{24}y + 1944\,v_1^8v_2x^{23}y^2 + 144\,v_1^{12}x^{23}y^2 + 5022\,v_1^4v_2^2x^{23}y^2 - 648\,v_2^3x^{23}y^2 + 24228\,v_1^8v_2x^{22}y^3 + 349\,v_1^{12}x^{22}y^3 - 6840\,v_2^3x^{22}y^3 + 86370\,v_1^4v_2^2x^{22}y^3 + 826650\,v_1^4v_2^2x^{21}y^4 - 16170\,v_1^{12}x^{21}y^4 + 142032\,v_1^8v_2x^{21}y^4 - 44550\,v_2^3x^{21}y^4 + 318878\,v_1^8v_2x^{20}y^5 - 205506\,v_2^3x^{20}y^5 + 5207664\,v_1^4v_2^2x^{20}y^5 - 218544\,v_1^{12}x^{20}y^5 - 1480107\,v_1^{12}x^{19}y^6 - 1139976\,v_1^8v_2x^{19}y^6 + 23598326\,v_1^4v_2^2x^{19}y^6 - 722064\,v_2^3x^{19}y^6 + 81118782\,v_1^4v_2^2x^{18}y^7 - 12390364\,v_1^8v_2x^{18}y^7 - 2018208\,v_2^3x^{18}y^7 - 6597862\,v_1^{12}x^{18}y^7 + 218857950\,v_1^4v_2^2x^{17}y^8 - 21312102\,v_1^{12}x^{17}y^8 - 54210105\,v_1^8v_2x^{17}y^8 - 4613895\,v_2^3x^{17}y^8 - 8788062\,v_2^3x^{16}y^9 + 474057918\,v_1^4v_2^2x^{16}y^9 - 155975415\,v_1^8v_2x^{16}y^9 - 52390812\,v_1^{12}x^{16}y^9 - 14119176\,v_2^3x^{15}y^{10} + 836983094\,v_1^4v_2^2x^{15}y^{10} - 329094428\,v_1^8v_2x^{15}y^{10} - 100871068\,v_1^{12}x^{15}y^{10} + 1216584786\,v_1^4v_2^2x^{14}y^{11} - 19290024\,v_2^3x^{14}y^{11} - 154803940\,v_1^{12}x^{14}y^{11} - 532239532\,v_1^8v_2x^{14}y^{11} - 22521240\,v_2^3x^{13}y^{12} - 673868356\,v_1^8v_2x^{13}y^{12} + 1464651090\,v_1^4v_2^2x^{13}y^{12} - 191317862\,v_1^{12}x^{13}y^{12} + 1464651090\,v_1^4v_2^2x^{12}y^{13} - 191317862\,v_1^{12}x^{12}y^{13} - 22521240\,v_2^3x^{12}y^{13} - 673868356\,v_1^8v_2x^{12}y^{13} + 1216584786\,v_1^4v_2^2x^{11}y^{14} - 19290024\,v_2^3x^{11}y^{14} - 154803940\,v_1^{12}x^{11}y^{14} - 532239532\,v_1^8v_2x^{11}y^{14} - 14119176\,v_2^3x^{10}y^{15} - 100871068\,v_1^{12}x^{10}y^{15} - 329094428\,v_1^8v_2x^{10}y^{15} + 836983094\,v_1^4v_2^2x^{10}y^{15} - 8788062\,v_2^3x^9y^{16} - 155975415\,v_1^8v_2x^9y^{16} - 52390812\,v_1^{12}x^9y^{16} + 474057918\,v_1^4v_2^2x^9y^{16} - 54210105\,v_1^8v_2x^8y^{17} - 21312102\,v_1^{12}x^8y^{17} + 218857950\,v_1^4v_2^2x^8y^{17} - 4613895\,v_2^3x^8y^{17} + 81118782\,v_1^4v_2^2x^7y^{18} - 12390364\,v_1^8v_2x^7y^{18} - 2018208\,v_2^3x^7y^{18} - 6597862\,v_1^{12}x^7y^{18} - 1139976\,v_1^8v_2x^6y^{19} - 1480107\,v_1^{12}x^6y^{19} + 23598326\,v_1^4v_2^2x^6y^{19} - 722064\,v_2^3x^6y^{19} - 205506\,v_2^3x^5y^{20} + 5207664\,v_1^4v_2^2x^5y^{20} + 318878\,v_1^8v_2x^5y^{20} - 218544\,v_1^{12}x^5y^{20} - 44550\,v_2^3x^4y^{21} - 16170\,v_1^{12}x^4y^{21} + 826650\,v_1^4v_2^2x^4y^{21} + 142032\,v_1^8v_2x^4y^{21} - 6840\,v_2^3x^3y^{22} + 24228\,v_1^8v_2x^3y^{22} + 349\,v_1^{12}x^3y^{22} + 86370\,v_1^4v_2^2x^3y^{22} + 5022\,v_1^4v_2^2x^2y^{23} - 648\,v_2^3x^2y^{23} + 1944\,v_1^8v_2x^2y^{23} + 144\,v_1^{12}x^2y^{23} + 6\,v_1^{12}xy^{24} + 108\,v_1^4v_2^2xy^{24} + 54\,v_1^8v_2xy^{24} - 27\,v_2^3xy^{24}$$

$$105\,v_1v_2^3x^{26}y - 9\,v_1^{13}x^{26}y - 63\,v_1^9v_2x^{26}y - 81\,v_1^5v_2^2x^{26}y - 9\,v_3x^{26}y - 3276\,v_1^9v_2x^{25}y^2 - 351\,v_1^{13}x^{25}y^2 - 117\,v_3x^{25}y^2 - 6318\,v_1^5v_2^2x^{25}y^2 + 3471\,v_1v_2^3x^{25}y^2 + 47366\,v_1v_2^3x^{24}y^3 - 975\,v_3x^{24}y^3 - 59283\,v_1^9v_2x^{24}y^3 - 4424\,v_1^{13}x^{24}y^3 - 148068\,v_1^5v_2^2x^{24}y^3 + 385068\,v_1v_2^3x^{23}y^4 - 1797822\,v_1^5v_2^2x^{23}y^4 - 5850\,v_3x^{23}y^4 - 17874\,v_1^{13}x^{23}y^4 - 554094\,v_1^9v_2x^{23}y^4 + 2165502\,v_1v_2^3x^{22}y^5 - 3114402\,v_1^9v_2x^{22}y^5 + 105902\,v_1^{13}x^{22}y^5 - 13877802\,v_1^5v_2^2x^{22}y^5 - 26910\,v_3x^{22}y^5 + 9121838\,v_1v_2^3x^{21}y^6 + 1780416\,v_1^{13}x^{21}y^6 - 10982488\,v_1^9v_2x^{21}y^6 - 75577326\,v_1^5v_2^2x^{21}y^6 - 98670\,v_3x^{21}y^6 + 30198900\,v_1v_2^3x^{20}y^7 - 296010\,v_3x^{20}y^7 - 21914884\,v_1^9v_2x^{20}y^7 - 308702996\,v_1^5v_2^2x^{20}y^7 + 11701358\,v_1^{13}x^{20}y^7 - 740025\,v_3x^{19}y^8 + 49712322\,v_1^{13}x^{19}y^8 - 2800026\,v_1^9v_2x^{19}y^8 - 983405279\,v_1^5v_2^2x^{19}y^8 + 81067422\,v_1v_2^3x^{19}y^8 + 153825690\,v_1^{13}x^{18}y^9 - 1562275\,v_3x^{18}y^9 - 2507950710\,v_1^5v_2^2x^{18}y^9 + 143744263\,v_1^9v_2x^{18}y^9 + 180230814\,v_1v_2^3x^{18}y^9 + 561618087\,v_1^9v_2x^{17}y^{10} - 2812095\,v_3x^{17}y^{10} - 5212914282\,v_1^5v_2^2x^{17}y^{10} + 336726495\,v_1v_2^3x^{17}y^{10} + 365492475\,v_1^{13}x^{17}y^{10} + 686412386\,v_1^{13}x^{16}y^{11} + 1313396181\,v_1^9v_2x^{16}y^{11} - 4345965\,v_3x^{16}y^{11} + 534022740\,v_1v_2^3x^{16}y^{11} - 8940480468\,v_1^5v_2^2x^{16}y^{11} + 1036492252\,v_1^{13}x^{15}y^{12} - 5794620\,v_3x^{15}y^{12} + 2215322504\,v_1^9v_2x^{15}y^{12} + 723767504\,v_1v_2^3x^{15}y^{12} - 12756534612\,v_1^5v_2^2x^{15}y^{12} + 841765740\,v_1v_2^3x^{14}y^{13} + 2849558950\,v_1^9v_2x^{14}y^{13} - 15219293936\,v_1^5v_2^2x^{14}y^{13} - 6686100\,v_3x^{14}y^{13} + 1270800184\,v_1^{13}x^{14}y^{13} + 2849558950\,v_1^9v_2x^{13}y^{14} - 15219293936\,v_1^5v_2^2x^{13}y^{14} + 841765740\,v_1v_2^3x^{13}y^{14} + 1270800184\,v_1^{13}x^{13}y^{14} - 6686100\,v_3x^{13}y^{14} - 5794620\,v_3x^{12}y^{15} + 723767504\,v_1v_2^3x^{12}y^{15} - 12756534612\,v_1^5v_2^2x^{12}y^{15} + 1036492252\,v_1^{13}x^{12}y^{15} + 2215322504\,v_1^9v_2x^{12}y^{15} + 534022740\,v_1v_2^3x^{11}y^{16} + 686412386\,v_1^{13}x^{11}y^{16} - 8940480468\,v_1^5v_2^2x^{11}y^{16} - 4345965\,v_3x^{11}y^{16} + 1313396181\,v_1^9v_2x^{11}y^{16} - 5212914282\,v_1^5v_2^2x^{10}y^{17} + 365492475\,v_1^{13}x^{10}y^{17} + 561618087\,v_1^9v_2x^{10}y^{17} - 2812095\,v_3x^{10}y^{17} +$$

$336726495\,v_1v_2^3x^{10}y^{17} - 1562275\,v_3x^9y^{18} + 180230814\,v_1v_2^3x^9y^{18} - 2507950710\,v_1^5v_2^2x^9y^{18} + 153825690\,v_1^{13}x^9y^{18} + 143744263\,v_1^9v_2x^9y^{18} - 740025\,v_3x^8y^{19} + 49712322\,v_1^{13}x^8y^{19} - 983405279\,v_1^5v_2^2x^8y^{19} - 2800026\,v_1^9v_2x^8y^{19} + 81067422\,v_1v_2^3x^8y^{19} - 296010\,v_3x^7y^{20} - 308702996\,v_1^5v_2^2x^7y^{20} - 21914884\,v_1^9v_2x^7y^{20} + 30198900\,v_1v_2^3x^7y^{20} + 11701358\,v_1^{13}x^7y^{20} - 98670\,v_3x^6y^{21} + 9121838\,v_1v_2^3x^6y^{21} - 75577326\,v_1^5v_2^2x^6y^{21} - 10982488\,v_1^9v_2x^6y^{21} + 1780416\,v_1^{13}x^6y^{21} + 105902\,v_1^{13}x^5y^{22} + 2165502\,v_1v_2^3x^5y^{22} - 26910\,v_3x^5y^{22} - 3114402\,v_1^9v_2x^5y^{22} - 13877802\,v_1^5v_2^2x^5y^{22} + 385068\,v_1v_2^3x^4y^{23} - 5850\,v_3x^4y^{23} - 1797822\,v_1^5v_2^2x^4y^{23} - 17874\,v_1^{13}x^4y^{23} - 554094\,v_1^9v_2x^4y^{23} - 148068\,v_1^5v_2^2x^3y^{24} - 975\,v_3x^3y^{24} + 47366\,v_1v_2^3x^3y^{24} - 59283\,v_1^9v_2x^3y^{24} - 4424\,v_1^{13}x^3y^{24} - 3276\,v_1^9v_2x^2y^{25} + 3471\,v_1v_2^3x^2y^{25} - 351\,v_1^{13}x^2y^{25} - 117\,v_3x^2y^{25} - 6318\,v_1^5v_2^2x^2y^{25} + 105\,v_1v_2^3xy^{26} - 63\,v_1^9v_2xy^{26} - 81\,v_1^5v_2^2xy^{26} - 9\,v_3xy^{26} - 9\,v_1^{13}xy^{26}$

Notice that for the Hazewinkel generators v_i we can verify that [Rez, p.15]

$$\begin{aligned}
[3]_V(x) &= 3x + \cdots, \\
[3]_V(x) &\equiv v_1x^3 + \cdots \mod (3), \\
[3]_V(x) &\equiv v_2x^9 + \cdots \mod (3, v_1), \\
[3]_V(x) &\equiv v_3x^27 + \cdots \mod (3, v_1, v_2),
\end{aligned}$$

8.3. $F_W(x,y)$ **at** $p = 3$ **over** $\mathbb{Z}_{(3)}[W]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> lambda[0]:=1: w[0]:=p:
> L:=(m,n)->{ seq(p*lambda[j]=add(lambda[i]*w[j-i]^(p^i),
  i=0..j),j=m..n) };
> # the inputs m and n are the lower and upper bounds for the
> # subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> assign(expand(%));
> p:=3:
> m:=28: # the highest degree on x in the logarithm
> q:=4: # the number of lambda[i]'s in the logarithm,
> # so that we know the logarithm to degree x^(p^q)
> f_W:=x->sum(lambda[i]*x^(p^i),i=0..q);
> f_W(x);
> latex(%);
> log_W:=powpoly(f_W(x),x);
> tpsform(log_W,x);
> exp_W:=reversion(log_W);
> tpsform(exp_W,x);
> e_W:=x->simplify(convert(tpsform(exp_W,x,m+1),polynom));
> F_W:=(x,y)->sort(simplify(mtaylor(subs(z=f_W(x)+f_W(y),
  e_W(z)),[x,y],m+1)),[x,y]);
> F_W(x,y);
> latex(%);
```

The results of these computations are that logarithm $\log_W(x)$ at $p = 3$ equals

$$x - 1/24\,w_1x^3 + (-\tfrac{1}{19680}\,w_2 + \tfrac{1}{472320}\,w_1^4)x^9 + (\tfrac{1}{183014339639616}\,w_1w_2^3 + \tfrac{1}{150071758504485120}\,w_1^9w_2 - \tfrac{1}{7625597484984}\,w_3 - \tfrac{1}{3601722204107642880}\,w_1^{13})x^{27} + (-\tfrac{1}{443426488243037769948249630619149892800}\,w_4 + \tfrac{1}{872663328862298331258155273058486890304000}\,w_2^{10} - \tfrac{1}{66545792858101074529000889626741561570865050367195136000}\,w_1^{36}w_2 + \tfrac{1}{33813919135213960634654923590823964212837932097152000}\,w_1^{27}w_3 + \tfrac{1}{15970990285944257886960213510417974777007612088126832640000}\,w_1^{40} - \tfrac{1}{209439198926951599501957265534036877367296000}\,w_2^9w_1^4 + \tfrac{1}{106422357178329064787579911348595974272000}\,w_1w_3^3 - \tfrac{1}{81153405924513505523171816617977514110811037033164800}\,w_1^{28}w_2^3)x^{81}$$

The formal group law $F_W(x,y)$ at $p = 2$ equals

$$\begin{aligned}
&x + y \\
&+1/8\,w_1x^2y + 1/8\,w_1xy^2 \\
&+\tfrac{1}{64}\,w_1^2x^4y + \tfrac{3}{64}\,w_1^2x^3y^2 + \tfrac{3}{64}\,w_1^2x^2y^3 + \tfrac{1}{64}\,w_1^2xy^4 \\
&+\tfrac{1}{512}\,w_1^3x^6y + \tfrac{3}{256}\,w_1^3x^5y^2 + \tfrac{13}{512}\,w_1^3x^4y^3 + \tfrac{13}{512}\,w_1^3x^3y^4 + \tfrac{3}{256}\,w_1^3x^2y^5 + \tfrac{1}{512}\,w_1^3xy^6
\end{aligned}$$

$$+\frac{189}{839680}\,w_1{}^4x^8y+\frac{3}{6560}\,w_2x^8y+\frac{3}{1640}\,w_2x^7y^2+\frac{993}{419840}\,w_1{}^4x^7y^2+\frac{7299}{839680}\,w_1{}^4x^6y^3+\frac{7}{1640}\,w_2x^6y^3+$$
$$\frac{21}{3280}\,w_2x^5y^4+\frac{6653}{419840}\,w_1{}^4x^5y^4+\frac{21}{3280}\,w_2x^4y^5+\frac{6653}{419840}\,w_1{}^4x^4y^5+\frac{7}{1640}\,w_2x^3y^6+\frac{7299}{839680}\,w_1{}^4x^3y^6+$$
$$\frac{993}{419840}\,w_1{}^4x^2y^7+\frac{3}{1640}\,w_2x^2y^7+\frac{189}{839680}\,w_1{}^4xy^8+\frac{3}{6560}\,w_2xy^8$$

$$+\frac{3}{26240}\,w_1w_2x^{10}y+\frac{173}{6717440}\,w_1{}^5x^{10}y+\frac{9}{10496}\,w_1w_2x^9y^2+\frac{567}{1343488}\,w_1{}^5x^9y^2+\frac{163}{52480}\,w_1w_2x^8y^3+$$
$$\frac{3951}{1679360}\,w_1{}^5x^8y^3+\frac{181}{26240}\,w_1w_2x^7y^4+\frac{5567}{839680}\,w_1{}^5x^7y^4+\frac{133}{13120}\,w_1w_2x^6y^5+\frac{18219}{1679360}\,w_1{}^5x^6y^5+$$
$$\frac{133}{13120}\,w_1w_2x^5y^6+\frac{18219}{1679360}\,w_1{}^5x^5y^6+\frac{181}{26240}\,w_1w_2x^4y^7+\frac{5567}{839680}\,w_1{}^5x^4y^7+\frac{163}{52480}\,w_1w_2x^3y^8+$$
$$\frac{3951}{1679360}\,w_1{}^5x^3y^8+\frac{567}{1343488}\,w_1{}^5x^2y^9+\frac{9}{10496}\,w_1w_2x^2y^9+\frac{173}{6717440}\,w_1{}^5xy^{10}+\frac{3}{26240}\,w_1w_2xy^{10}$$

$$+\frac{9}{419840}\,w_1{}^2w_2x^{12}y+\frac{157}{53739520}\,w_1{}^6x^{12}y+\frac{3729}{53739520}\,w_1{}^6x^{11}y^2+\frac{27}{104960}\,w_1{}^2w_2x^{11}y^2+\frac{71}{52480}\,w_1{}^2w_2x^{10}y^3+$$
$$\frac{29429}{53739520}\,w_1{}^6x^{10}y^3+\frac{5883}{2686976}\,w_1{}^6x^9y^4+\frac{177}{41984}\,w_1{}^2w_2x^9y^4+\frac{3637}{419840}\,w_1{}^2w_2x^8y^5+\frac{279561}{53739520}\,w_1{}^6x^8y^5+$$
$$\frac{1291}{104960}\,w_1{}^2w_2x^7y^6+\frac{53069}{6717440}\,w_1{}^6x^7y^6+\frac{1291}{104960}\,w_1{}^2w_2x^6y^7+\frac{53069}{6717440}\,w_1{}^6x^6y^7+\frac{279561}{53739520}\,w_1{}^6x^5y^8+$$
$$\frac{3637}{419840}\,w_1{}^2w_2x^5y^8+\frac{5883}{2686976}\,w_1{}^6x^4y^9+\frac{177}{41984}\,w_1{}^2w_2x^4y^9+\frac{29429}{53739520}\,w_1{}^6x^3y^{10}+\frac{71}{52480}\,w_1{}^2w_2x^3y^{10}+$$
$$\frac{27}{104960}\,w_1{}^2w_2x^2y^{11}+\frac{3729}{53739520}\,w_1{}^6x^2y^{11}+\frac{157}{53739520}\,w_1{}^6xy^{12}+\frac{9}{419840}\,w_1{}^2w_2xy^{12}$$

$$+\frac{3}{839680}\,w_1{}^3w_2x^{14}y+\frac{141}{429916160}\,w_1{}^7x^{14}y+\frac{21}{335872}\,w_1{}^3w_2x^{13}y^2+\frac{231}{21495808}\,w_1{}^7x^{13}y^2+\frac{37}{81920}\,w_1{}^3w_2x^{12}y^3+$$
$$\frac{1201}{10485760}\,w_1{}^7x^{12}y^3+\frac{6333}{3358720}\,w_1{}^3w_2x^{11}y^4+\frac{517}{839680}\,w_1{}^7x^{11}y^4+\frac{1735}{335872}\,w_1{}^3w_2x^{10}y^5+\frac{85361}{42991616}\,w_1{}^7x^{10}y^5+$$
$$\frac{33137}{3358720}\,w_1{}^3w_2x^9y^6+\frac{1798171}{429916160}\,w_1{}^7x^9y^6+\frac{2585209}{429916160}\,w_1{}^7x^8y^7+\frac{45493}{3358720}\,w_1{}^3w_2x^8y^7+\frac{45493}{3358720}\,w_1{}^3w_2x^7y^8+$$
$$\frac{2585209}{429916160}\,w_1{}^7x^7y^8+\frac{1798171}{429916160}\,w_1{}^7x^6y^9+\frac{33137}{3358720}\,w_1{}^3w_2x^6y^9+\frac{85361}{42991616}\,w_1{}^7x^5y^{10}+\frac{1735}{335872}\,w_1{}^3w_2x^5y^{10}+$$
$$\frac{6333}{3358720}\,w_1{}^3w_2x^4y^{11}+\frac{517}{839680}\,w_1{}^7x^4y^{11}+\frac{37}{81920}\,w_1{}^3w_2x^3y^{12}+\frac{1201}{10485760}\,w_1{}^7x^3y^{12}+\frac{21}{335872}\,w_1{}^3w_2x^2y^{13}+$$
$$\frac{231}{21495808}\,w_1{}^7x^2y^{13}+\frac{3}{839680}\,w_1{}^3w_2xy^{14}+\frac{141}{429916160}\,w_1{}^7xy^{14}$$

$$+\frac{25881}{705062502400}\,w_1{}^8x^{16}y+\frac{2979}{5508300800}\,w_1{}^4w_2x^{16}y+\frac{9}{43033600}\,w_2{}^2x^{16}y+\frac{280593}{176265625600}\,w_1{}^8x^{15}y^2+$$
$$\frac{27}{10758400}\,w_2{}^2x^{15}y^2+\frac{9081}{688537600}\,w_1{}^4w_2x^{15}y^2+\frac{15589481}{705062502400}\,w_1{}^8x^{14}y^3+\frac{39}{2689600}\,w_2{}^2x^{14}y^3+$$
$$\frac{347837}{2754150400}\,w_1{}^4w_2x^{14}y^3+\frac{231}{4303360}\,w_2{}^2x^{13}y^4+\frac{47047}{68853760}\,w_1{}^4w_2x^{13}y^4+\frac{678209}{4406640640}\,w_1{}^8x^{13}y^4+$$
$$\frac{6634921}{2754150400}\,w_1{}^4w_2x^{12}y^5+\frac{227224819}{352531251200}\,w_1{}^8x^{12}y^5+\frac{1533}{10758400}\,w_2{}^2x^{12}y^5+\frac{4091531}{688537600}\,w_1{}^4w_2x^{11}y^6+$$
$$\frac{1257218737}{705062502400}\,w_1{}^8x^{11}y^6+\frac{3087}{10758400}\,w_2{}^2x^{11}y^6+\frac{5872809}{550830080}\,w_1{}^4w_2x^{10}y^7+\frac{242029301}{70506250240}\,w_1{}^8x^{10}y^7+\frac{243}{537920}\,w_2{}^2x^{10}y^7+$$
$$\frac{24309}{43033600}\,w_2{}^2x^9y^8+\frac{3336593521}{705062502400}\,w_1{}^8x^9y^8+\frac{78290759}{5508300800}\,w_1{}^4w_2x^9y^8+\frac{24309}{43033600}\,w_2{}^2x^8y^9+\frac{3336593521}{705062502400}\,w_1{}^8x^8y^9+$$
$$\frac{78290759}{5508300800}\,w_1{}^4w_2x^8y^9+\frac{5872809}{550830080}\,w_1{}^4w_2x^7y^{10}+\frac{243}{537920}\,w_2{}^2x^7y^{10}+\frac{242029301}{70506250240}\,w_1{}^8x^7y^{10}+\frac{3087}{10758400}\,w_2{}^2x^6y^{11}+$$
$$\frac{1257218737}{705062502400}\,w_1{}^8x^6y^{11}+\frac{4091531}{688537600}\,w_1{}^4w_2x^6y^{11}+\frac{227224819}{352531251200}\,w_1{}^8x^5y^{12}+\frac{6634921}{2754150400}\,w_1{}^4w_2x^5y^{12}+$$
$$\frac{1533}{10758400}\,w_2{}^2x^5y^{12}+\frac{678209}{4406640640}\,w_1{}^8x^4y^{13}+\frac{231}{4303360}\,w_2{}^2x^4y^{13}+\frac{47047}{68853760}\,w_1{}^4w_2x^4y^{13}+\frac{347837}{2754150400}\,w_1{}^4w_2x^3y^{14}+$$
$$\frac{39}{2689600}\,w_2{}^2x^3y^{14}+\frac{15589481}{705062502400}\,w_1{}^8x^3y^{14}+\frac{27}{10758400}\,w_2{}^2x^2y^{15}+\frac{280593}{176265625600}\,w_1{}^8x^2y^{15}+$$
$$\frac{9081}{688537600}\,w_1{}^4w_2x^2y^{15}+\frac{25881}{705062502400}\,w_1{}^8xy^{16}+\frac{2979}{5508300800}\,w_1{}^4w_2xy^{16}+\frac{9}{43033600}\,w_2{}^2xy^{16}$$

$$+\frac{27}{344268800}\,w_1w_2{}^2x^{18}y+\frac{1701}{22033203200}\,w_1{}^5w_2x^{18}y+\frac{23113}{5640500019200}\,w_1{}^9x^{18}y+\frac{111051}{44066406400}\,w_1{}^5w_2x^{17}y^2+$$
$$\frac{1285029}{5640500019200}\,w_1{}^9x^{17}y^2+\frac{243}{172134400}\,w_1w_2{}^2x^{17}y^2+\frac{1369767}{44066406400}\,w_1{}^5w_2x^{16}y^3+\frac{1413653}{352531251200}\,w_1{}^9x^{16}y^3+$$
$$\frac{3867}{344268800}\,w_1w_2{}^2x^{16}y^3+\frac{1169841}{5508300800}\,w_1{}^5w_2x^{15}y^4+\frac{4707}{86067200}\,w_1w_2{}^2x^{15}y^4+\frac{49542783}{1410125004800}\,w_1{}^9x^{15}y^4+$$
$$\frac{522214951}{2820250009600}\,w_1{}^9x^{14}y^5+\frac{20669099}{22033203200}\,w_1{}^5w_2x^{14}y^5+\frac{3993}{21516800}\,w_1w_2{}^2x^{14}y^5+\frac{365668037}{564050001920}\,w_1{}^9x^{13}y^6+$$
$$\frac{3194373}{1101660160}\,w_1{}^5w_2x^{13}y^6+\frac{4039}{8606720}\,w_1w_2{}^2x^{13}y^6+\frac{144581173}{22033203200}\,w_1{}^5w_2x^{12}y^7+\frac{1126129163}{705062502400}\,w_1{}^9x^{12}y^7+$$
$$\frac{79069}{86067200}\,w_1w_2{}^2x^{12}y^7+\frac{4042054039}{1410125004800}\,w_1{}^9x^{11}y^8+\frac{245007}{172134400}\,w_1w_2{}^2x^{11}y^8+\frac{492174319}{44066406400}\,w_1{}^5w_2x^{11}y^8+$$
$$\frac{10780550281}{2820250009600}\,w_1{}^9x^{10}y^9+\frac{304129}{172134400}\,w_1w_2{}^2x^{10}y^9+\frac{639838853}{44066406400}\,w_1{}^5w_2x^{10}y^9+\frac{639838853}{44066406400}\,w_1{}^5w_2x^9y^{10}+$$
$$\frac{10780550281}{2820250009600}\,w_1{}^9x^9y^{10}+\frac{304129}{172134400}\,w_1w_2{}^2x^9y^{10}+\frac{245007}{172134400}\,w_1w_2{}^2x^8y^{11}+\frac{4042054039}{1410125004800}\,w_1{}^9x^8y^{11}+$$
$$\frac{492174319}{44066406400}\,w_1{}^5w_2x^8y^{11}+\frac{1126129163}{705062502400}\,w_1{}^9x^7y^{12}+\frac{144581173}{22033203200}\,w_1{}^5w_2x^7y^{12}+\frac{79069}{86067200}\,w_1w_2{}^2x^7y^{12}+$$
$$\frac{4039}{8606720}\,w_1w_2{}^2x^6y^{13}+\frac{3194373}{1101660160}\,w_1{}^5w_2x^6y^{13}+\frac{365668037}{564050001920}\,w_1{}^9x^6y^{13}+\frac{3993}{21516800}\,w_1w_2{}^2x^5y^{14}+$$

$$\frac{522214951}{2820250009600}\,w_1{}^9x^5y^{14}+\frac{20669099}{22033203200}\,w_1{}^5w_2x^5y^{14}+\frac{49542783}{1410125004800}\,w_1{}^9x^4y^{15}+\frac{1169841}{5508300800}\,w_1{}^5w_2x^4y^{15}+$$
$$\frac{4707}{86067200}\,w_1w_2{}^2x^4y^{15}+\frac{3867}{344268800}\,w_1w_2{}^2x^3y^{16}+\frac{1413653}{352531251200}\,w_1{}^9x^3y^{16}+\frac{1369767}{44066406400}\,w_1{}^5w_2x^3y^{16}+$$
$$\frac{243}{172134400}\,w_1w_2{}^2x^2y^{17}+\frac{1285029}{5640500019200}\,w_1{}^9x^2y^{17}+\frac{111051}{44066406400}\,w_1{}^5w_2x^2y^{17}+\frac{27}{344268800}\,w_1w_2{}^2xy^{18}+$$
$$\frac{1701}{22033203200}\,w_1{}^5w_2xy^{18}+\frac{23113}{5640500019200}\,w_1{}^9xy^{18}$$

$$+\frac{20601}{45124000153600}\,w_1{}^{10}x^{20}y+\frac{27}{1377075200}\,w_1{}^2w_2{}^2x^{20}y+\frac{3729}{352531251200}\,w_1{}^6w_2x^{20}y+\frac{789}{1762656256}\,w_1{}^6w_2x^{19}y^2+$$
$$\frac{57255}{1804960006144}\,w_1{}^{10}x^{19}y^2+\frac{27}{55083008}\,w_1{}^2w_2{}^2x^{19}y^2+\frac{14121}{2754150400}\,w_1{}^2w_2{}^2x^{18}y^3+\frac{1224183}{176265625600}\,w_1{}^6w_2x^{18}y^3+$$
$$\frac{31212959}{45124000153600}\,w_1{}^{10}x^{18}y^3+\frac{87561}{2754150400}\,w_1{}^2w_2{}^2x^{17}y^4+\frac{10342863}{176265625600}\,w_1{}^6w_2x^{17}y^4+\frac{336642879}{45124000153600}\,w_1{}^{10}x^{17}y^4+$$
$$\frac{14009073}{44066406400}\,w_1{}^6w_2x^{16}y^5+\frac{136260851}{2820250009600}\,w_1{}^{10}x^{16}y^5+\frac{185427}{1377075200}\,w_1{}^2w_2{}^2x^{16}y^5+\frac{4701683993}{22562000076800}\,w_1{}^{10}x^{15}y^6+$$
$$\frac{53021683}{44066406400}\,w_1{}^6w_2x^{15}y^6+\frac{288921}{688537600}\,w_1{}^2w_2{}^2x^{15}y^6+\frac{589621049}{176265625600}\,w_1{}^6w_2x^{14}y^7+\frac{172993}{172134400}\,w_1{}^2w_2{}^2x^{14}y^7+$$
$$\frac{14363831151}{22562000076800}\,w_1{}^{10}x^{14}y^7+\frac{209317}{110166016}\,w_1{}^2w_2{}^2x^{13}y^8+\frac{1615234997}{1128100003840}\,w_1{}^{10}x^{13}y^8+\frac{496857327}{70506250240}\,w_1{}^6w_2x^{13}y^8+$$
$$\frac{7938873}{2754150400}\,w_1{}^2w_2{}^2x^{12}y^9+\frac{856265899}{352531251200}\,w_1{}^{10}x^{12}y^9+\frac{505501721}{44066406400}\,w_1{}^6w_2x^{12}y^9+\frac{4878523}{1377075200}\,w_1{}^2w_2{}^2x^{11}y^{10}+$$
$$\frac{2572869683}{176265625600}\,w_1{}^6w_2x^{11}y^{10}+\frac{71136117417}{22562000076800}\,w_1{}^{10}x^{11}y^{10}+\frac{71136117417}{22562000076800}\,w_1{}^{10}x^{10}y^{11}+$$
$$\frac{2572869683}{176265625600}\,w_1{}^6w_2x^{10}y^{11}+\frac{4878523}{1377075200}\,w_1{}^2w_2{}^2x^{10}y^{11}+\frac{7938873}{2754150400}\,w_1{}^2w_2{}^2x^9y^{12}+\frac{856265899}{352531251200}\,w_1{}^{10}x^9y^{12}+$$
$$\frac{505501721}{44066406400}\,w_1{}^6w_2x^9y^{12}+\frac{209317}{110166016}\,w_1{}^2w_2{}^2x^8y^{13}+\frac{1615234997}{1128100003840}\,w_1{}^{10}x^8y^{13}+\frac{496857327}{70506250240}\,w_1{}^6w_2x^8y^{13}+$$
$$\frac{14363831151}{22562000076800}\,w_1{}^{10}x^7y^{14}+\frac{589621049}{176265625600}\,w_1{}^6w_2x^7y^{14}+\frac{172993}{172134400}\,w_1{}^2w_2{}^2x^7y^{14}+\frac{53021683}{44066406400}\,w_1{}^6w_2x^6y^{15}+$$
$$\frac{4701683993}{22562000076800}\,w_1{}^{10}x^6y^{15}+\frac{288921}{688537600}\,w_1{}^2w_2{}^2x^6y^{15}+\frac{14009073}{44066406400}\,w_1{}^6w_2x^5y^{16}+\frac{136260851}{2820250009600}\,w_1{}^{10}x^5y^{16}+$$
$$\frac{185427}{1377075200}\,w_1{}^2w_2{}^2x^5y^{16}+\frac{336642879}{45124000153600}\,w_1{}^{10}x^4y^{17}+\frac{87561}{2754150400}\,w_1{}^2w_2{}^2x^4y^{17}+\frac{10342863}{176265625600}\,w_1{}^6w_2x^4y^{17}+$$
$$\frac{31212959}{45124000153600}\,w_1{}^{10}x^3y^{18}+\frac{1224183}{176265625600}\,w_1{}^6w_2x^3y^{18}+\frac{14121}{2754150400}\,w_1{}^2w_2{}^2x^3y^{18}+\frac{789}{1762656256}\,w_1{}^6w_2x^2y^{19}+$$
$$\frac{27}{55083008}\,w_1{}^2w_2{}^2x^2y^{19}+\frac{57255}{1804960006144}\,w_1{}^{10}x^2y^{19}+\frac{27}{1377075200}\,w_1{}^2w_2{}^2xy^{20}+\frac{20601}{45124000153600}\,w_1{}^{10}xy^{20}+$$
$$\frac{3729}{352531251200}\,w_1{}^6w_2xy^{20}$$

$$+\frac{99}{70506250240}\,w_1{}^7w_2x^{22}y+\frac{3669}{72198400245760}\,w_1{}^{11}x^{22}y+\frac{9}{2203320320}\,w_1{}^3w_2{}^2x^{22}y+\frac{10593}{141012500480}\,w_1{}^7w_2x^{21}y^2+$$
$$\frac{31185}{7219840024576}\,w_1{}^{11}x^{21}y^2+\frac{297}{2203320320}\,w_1{}^3w_2{}^2x^{21}y^2+\frac{4054837}{2820250009600}\,w_1{}^7w_2x^{20}y^3+\frac{19731}{11016601600}\,w_1{}^3w_2{}^2x^{20}y^3+$$
$$\frac{41339853}{360992001228800}\,w_1{}^{11}x^{20}y^3+\frac{21560155}{14439680049152}\,w_1{}^{11}x^{19}y^4+\frac{759}{55083008}\,w_1{}^3w_2{}^2x^{19}y^4+\frac{832681}{56405000192}\,w_1{}^7w_2x^{19}y^4+$$
$$\frac{785727}{11016601600}\,w_1{}^3w_2{}^2x^{18}y^5+\frac{67991391}{705062502400}\,w_1{}^7w_2x^{18}y^5+\frac{1052322839}{90248000307200}\,w_1{}^{11}x^{18}y^5+\frac{1237589379}{2820250009600}\,w_1{}^7w_2x^{17}y^6+$$
$$\frac{21908832441}{360992001228800}\,w_1{}^{11}x^{17}y^6+\frac{2963547}{11016601600}\,w_1{}^3w_2{}^2x^{17}y^6+\frac{1708609}{2203320320}\,w_1{}^3w_2{}^2x^{16}y^7+\frac{51770091}{35253125120}\,w_1{}^7w_2x^{16}y^7+$$
$$\frac{4053795109}{18049600061440}\,w_1{}^{11}x^{16}y^7+\frac{6948734177}{11281000038400}\,w_1{}^{11}x^{15}y^8+\frac{5275191883}{1410125004800}\,w_1{}^7w_2x^{15}y^8+\frac{9699969}{5508300800}\,w_1{}^3w_2{}^2x^{15}y^8+$$
$$\frac{20925895259}{2820250009600}\,w_1{}^7w_2x^{14}y^9+\frac{232250070233}{180496000614400}\,w_1{}^{11}x^{14}y^9+\frac{17694651}{5508300800}\,w_1{}^3w_2{}^2x^{14}y^9+\frac{376170024831}{180496000614400}\,w_1{}^{11}x^{13}y^{10}+$$
$$\frac{6564003}{1377075200}\,w_1{}^3w_2{}^2x^{13}y^{10}+\frac{16396668349}{1410125004800}\,w_1{}^7w_2x^{13}y^{10}+\frac{15963783}{2754150400}\,w_1{}^3w_2{}^2x^{12}y^{11}+\frac{238760168259}{90248000307200}\,w_1{}^{11}x^{12}y^{11}+$$
$$\frac{40966206179}{2820250009600}\,w_1{}^7w_2x^{12}y^{11}+\frac{15963783}{2754150400}\,w_1{}^3w_2{}^2x^{11}y^{12}+\frac{40966206179}{2820250009600}\,w_1{}^7w_2x^{11}y^{12}+$$
$$\frac{238760168259}{90248000307200}\,w_1{}^{11}x^{11}y^{12}+\frac{367170024831}{180496000614400}\,w_1{}^{11}x^{10}y^{13}+\frac{16396668349}{1410125004800}\,w_1{}^7w_2x^{10}y^{13}+$$
$$\frac{6564003}{1377075200}\,w_1{}^3w_2{}^2x^{10}y^{13}+\frac{232250070233}{180496000614400}\,w_1{}^{11}x^9y^{14}+\frac{20925895259}{2820250009600}\,w_1{}^7w_2x^9y^{14}+\frac{17694651}{5508300800}\,w_1{}^3w_2{}^2x^9y^{14}+$$
$$\frac{6948734177}{11281000038400}\,w_1{}^{11}x^8y^{15}+\frac{5275191883}{1410125004800}\,w_1{}^7w_2x^8y^{15}+\frac{9699969}{5508300800}\,w_1{}^3w_2{}^2x^8y^{15}+\frac{1708609}{2203320320}\,w_1{}^3w_2{}^2x^7y^{16}+$$
$$\frac{51770091}{35253125120}\,w_1{}^7w_2x^7y^{16}+\frac{4053795109}{18049600061440}\,w_1{}^{11}x^7y^{16}+\frac{2963547}{11016601600}\,w_1{}^3w_2{}^2x^6y^{17}+\frac{21908832441}{360992001228800}\,w_1{}^{11}x^6y^{17}+$$
$$\frac{1237589379}{2820250009600}\,w_1{}^7w_2x^6y^{17}+\frac{67991391}{705062502400}\,w_1{}^7w_2x^5y^{18}+\frac{1052322839}{90248000307200}\,w_1{}^{11}x^5y^{18}+\frac{785727}{11016601600}\,w_1{}^3w_2{}^2x^5y^{18}+$$
$$\frac{832681}{56405000192}\,w_1{}^7w_2x^4y^{19}+\frac{21560155}{14439680049152}\,w_1{}^{11}x^4y^{19}+\frac{759}{55083008}\,w_1{}^3w_2{}^2x^4y^{19}+\frac{19731}{11016601600}\,w_1{}^3w_2{}^2x^3y^{20}+$$
$$\frac{4054837}{2820250009600}\,w_1{}^7w_2x^3y^{20}+\frac{41339853}{360992001228800}\,w_1{}^{11}x^3y^{20}+\frac{31185}{7219840024576}\,w_1{}^{11}x^2y^{21}+\frac{297}{2203320320}\,w_1{}^3w_2{}^2x^2y^{21}+$$
$$\frac{10593}{141012500480}\,w_1{}^7w_2x^2y^{21}+\frac{9}{2203320320}\,w_1{}^3w_2{}^2xy^{22}+\frac{3669}{72198400245760}\,w_1{}^{11}xy^{22}+\frac{99}{70506250240}\,w_1{}^7w_2xy^{22}$$

$$+\frac{27}{282300416000}\,w_2{}^3x^{24}y+\frac{27243}{36134453248000}\,w_1{}^4w_2{}^2x^{24}y+\frac{3346629}{59202688201523200}\,w_1{}^{12}x^{24}y+$$
$$\frac{841779}{4625210015744000}\,w_1{}^8w_2x^{24}y+\frac{170923923}{296013441007616000}\,w_1{}^{12}x^{23}y^2+\frac{13934349}{1156302503936000}\,w_1{}^8w_2x^{23}y^2+$$
$$\frac{575991}{18067226624000}\,w_1{}^4w_2{}^2x^{23}y^2+\frac{81}{35287552000}\,w_2{}^3x^{23}y^2+\frac{1899861}{3613445324800}\,w_1{}^4w_2{}^2x^{22}y^3+$$

$$\frac{2169214331}{118405376403046400}\,w_1{}^{12}x^{22}y^3+\frac{16177491}{57815125196800}\,w_1{}^{8}w_2x^{22}y^3+\frac{171}{7057510400}\,w_2{}^{3}x^{22}y^3+\frac{891}{5646008320}\,w_2{}^{3}x^{21}y^4+$$
$$\frac{111177}{22584033280}\,w_1{}^{4}w_2{}^{2}x^{21}y^4+\frac{318278631}{92504200314880}\,w_1{}^{8}w_2x^{21}y^4+\frac{3367845789}{118405376403046400}\,w_1{}^{12}x^{21}y^4+$$
$$\frac{55320587}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{20}y^5+\frac{102753}{141150208000}\,w_2{}^{3}x^{20}y^5+\frac{15445009139}{578151251968000}\,w_1{}^{8}w_2x^{20}y^5+$$
$$\frac{390384658803}{148006720503808000}\,w_1{}^{12}x^{20}y^5+\frac{2487063463}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{19}y^6+\frac{45129}{17643776000}\,w_2{}^{3}x^{19}y^6+$$
$$\frac{96480735035103}{592026882015232000}\,w_1{}^{12}x^{19}y^6+\frac{166512467007}{1156302503936000}\,w_1{}^{8}w_2x^{19}y^6+\frac{10617387585179}{148006720503808000}\,w_1{}^{12}x^{18}y^7+$$
$$\frac{8505395811}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{18}y^7+\frac{63069}{8821888000}\,w_2{}^{3}x^{18}y^7+\frac{165002124301}{28907562598400}\,w_1{}^{8}w_2x^{18}y^7+$$
$$\frac{434828947917}{185008406297600}\,w_1{}^{12}x^{17}y^8+\frac{9147581181}{7226890649600}\,w_1{}^{4}w_2{}^{2}x^{17}y^8+\frac{798621815889}{462521001574400}\,w_1{}^{8}w_2x^{17}y^8+$$
$$\frac{922779}{56460083200}\,w_2{}^{3}x^{17}y^8+\frac{349515498367149}{592026882015232000}\,w_1{}^{12}x^{16}y^9+\frac{24710704227}{9033613312000}\,w_1{}^{4}w_2{}^{2}x^{16}y^9+\frac{4394031}{141150208000}\,w_2{}^{3}x^{16}y^9+$$
$$\frac{18904422291549}{4625210015744000}\,w_1{}^{8}w_2x^{16}y^9+\frac{4452197960419}{57815125196800}\,w_1{}^{8}w_2x^{15}y^{10}+\frac{343411443813751}{296013441007616000}\,w_1{}^{12}x^{15}y^{10}+$$
$$\frac{87125029267}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{15}y^{10}+\frac{1764897}{35287552000}\,w_2{}^{3}x^{15}y^{10}+\frac{535090163089249}{296013441007616000}\,w_1{}^{12}x^{14}y^{11}+\frac{2411253}{35287552000}\,w_2{}^{3}x^{14}y^{11}+$$
$$\frac{3376339854403}{289075625984000}\,w_1{}^{8}w_2x^{14}y^{11}+\frac{126522847833}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{14}y^{11}+\frac{30450998781}{3613445324800}\,w_1{}^{4}w_2{}^{2}x^{13}y^{12}+$$
$$\frac{16665339017441}{7400336025190400}\,w_1{}^{12}x^{13}y^{12}+\frac{563031}{7057510400}\,w_2{}^{3}x^{13}y^{12}+\frac{1660485393007}{115630250393600}\,w_1{}^{8}w_2x^{13}y^{12}+$$
$$\frac{16665339017441}{7400336025190400}\,w_1{}^{12}x^{12}y^{13}+\frac{563031}{7057510400}\,w_2{}^{3}x^{12}y^{13}+\frac{30450998781}{3613445324800}\,w_1{}^{4}w_2{}^{2}x^{12}y^{13}+$$
$$\frac{1660485393007}{115630250393600}\,w_1{}^{8}w_2x^{12}y^{13}+\frac{2411253}{35287552000}\,w_2{}^{3}x^{11}y^{14}+\frac{3376339854403}{289075625984000}\,w_1{}^{8}w_2x^{11}y^{14}+$$
$$\frac{535090163089249}{296013441007616000}\,w_1{}^{12}x^{11}y^{14}+\frac{126522847833}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{11}y^{14}+\frac{87125029267}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{10}y^{15}+$$
$$\frac{1764897}{35287552000}\,w_2{}^{3}x^{10}y^{15}+\frac{343411443813751}{296013441007616000}\,w_1{}^{12}x^{10}y^{15}+\frac{4452197960419}{57815125196800}\,w_1{}^{8}w_2x^{10}y^{15}+$$
$$\frac{24710704227}{9033613312000}\,w_1{}^{4}w_2{}^{2}x^{9}y^{16}+\frac{4394031}{141150208000}\,w_2{}^{3}x^{9}y^{16}+\frac{349515498367149}{592026882015232000}\,w_1{}^{12}x^{9}y^{16}+$$
$$\frac{18904422291549}{4625210015744000}\,w_1{}^{8}w_2x^{9}y^{16}+\frac{798621815889}{462521001574400}\,w_1{}^{8}w_2x^{8}y^{17}+\frac{922779}{36460083200}\,w_2{}^{3}x^{8}y^{17}+$$
$$\frac{9147581181}{7226890649600}\,w_1{}^{4}w_2{}^{2}x^{8}y^{17}+\frac{434828947917}{185008406297600}\,w_1{}^{12}x^{8}y^{17}+\frac{8505395811}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{7}y^{18}+$$
$$\frac{63069}{8821888000}\,w_2{}^{3}x^{7}y^{18}+\frac{10617387585179}{148006720503808000}\,w_1{}^{12}x^{7}y^{18}+\frac{165002124301}{28907562598400}\,w_1{}^{8}w_2x^{7}y^{18}+\frac{45129}{17643776000}\,w_2{}^{3}x^{6}y^{19}+$$
$$\frac{96480735035103}{592026882015232000}\,w_1{}^{12}x^{6}y^{19}+\frac{2487063463}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{6}y^{19}+\frac{166512467007}{1156302503936000}\,w_1{}^{8}w_2x^{6}y^{19}+$$
$$\frac{553205877}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{5}y^{20}+\frac{390384658803}{148006720503808000}\,w_1{}^{12}x^{5}y^{20}+\frac{15445009139}{578151251968000}\,w_1{}^{8}w_2x^{5}y^{20}+$$
$$\frac{102753}{141150208000}\,w_2{}^{3}x^{5}y^{20}+\frac{891}{5646008320}\,w_2{}^{3}x^{4}y^{21}+\frac{318278631}{92504200314880}\,w_1{}^{8}w_2x^{4}y^{21}+\frac{111177}{22584033280}\,w_1{}^{4}w_2{}^{2}x^{4}y^{21}+$$
$$\frac{3367845789}{118405376403046400}\,w_1{}^{12}x^{4}y^{21}+\frac{16177491}{57815125196800}\,w_1{}^{8}w_2x^{3}y^{22}+\frac{171}{7057510400}\,w_2{}^{3}x^{3}y^{22}+$$
$$\frac{2169214331}{118405376403046400}\,w_1{}^{12}x^{3}y^{22}+\frac{1899861}{3613445324800}\,w_1{}^{4}w_2{}^{2}x^{3}y^{22}+\frac{13934349}{1156302503936000}\,w_1{}^{8}w_2x^{2}y^{23}+$$
$$\frac{170923923}{296013441007616000}\,w_1{}^{12}x^{2}y^{23}+\frac{575991}{18067226624000}\,w_1{}^{4}w_2{}^{2}x^{2}y^{23}+\frac{81}{35287552000}\,w_2{}^{3}x^{2}y^{23}+\frac{27}{282300416000}\,w_2{}^{3}xy^{24}+$$
$$\frac{3346629}{592026882015232000}\,w_1{}^{12}xy^{24}+\frac{27243}{36134453248000}\,w_1{}^{4}w_2{}^{2}xy^{24}+\frac{841779}{4625210015744000}\,w_1{}^{8}w_2xy^{24}$$

$$\frac{8552331506607}{17939244518829474612000}\,w_1w_2{}^{3}x^{26}y+\frac{136097746719183963}{5878331643930042240598016000}\,w_1{}^{9}w_2x^{26}y+$$
$$\frac{945846228118686561}{150485290084609081359309209600 0}\,w_1{}^{13}x^{26}y+\frac{9}{2541865828328}\,w_3x^{26}y+\frac{37017}{289075625984000}\,w_1{}^{5}w_2{}^{2}x^{26}y+$$
$$\frac{22875935627577698991}{3009705801692181627186184192000}\,w_1{}^{13}x^{25}y^2+\frac{97929}{14453781299200}\,w_1{}^{5}w_2{}^{2}x^{25}y^2+$$
$$\frac{111386741765091}{71756978075317898444800}\,w_1w_2{}^{3}x^{25}y^2+\frac{4381699990172026977}{2351332657572016896239206400}\,w_1{}^{9}w_2x^{25}y^2+\frac{117}{2541865828328}\,w_3x^{25}y^2+$$
$$\frac{39367539}{289075625984000}\,w_1{}^{5}w_2{}^{2}x^{24}y^3+\frac{6083773181964095601807}{1175666328786008448119603200}\,w_1{}^{9}w_2x^{24}y^3+$$
$$\frac{1071083807072638410023}{37621322521152270339827302400 0}\,w_1{}^{13}x^{24}y^3+\frac{15141546947948831}{71756978075317898444800}\,w_1w_2{}^{3}x^{24}y^3+\frac{975}{2541865828328}\,w_3x^{24}y^3+$$
$$\frac{61449833958540369}{358784890376589492224000}\,w_1w_2{}^{3}x^{23}y^4+\frac{55212489}{36134453248000}\,w_1{}^{5}w_2{}^{2}x^{23}y^4+$$
$$\frac{44231816956532157397213}{5878331643930042240598016000}\,w_1{}^{9}w_2x^{23}y^4+\frac{2925}{1270932914164}\,w_3x^{23}y^4+\frac{19549002072374311637169}{37621322521152270339827302400 0}\,w_1{}^{13}x^{23}y^4+$$
$$\frac{13455}{1270932914164}\,w_3x^{22}y^5+\frac{86323184948820669}{8969622259414737306000 0}\,w_1w_2{}^{3}x^{22}y^5+\frac{2016408655807304297 2131}{29391658219650211202990080 00}\,w_1{}^{9}w_2x^{22}y^5+$$
$$\frac{1627962309}{144537812992000}\,w_1{}^{5}w_2{}^{2}x^{22}y^5+\frac{4250225566510811750737 67}{75242645042304540679654604800 0}\,w_1{}^{13}x^{22}y^5+$$
$$\frac{363450084533676481}{8969622259414737306000}\,w_1w_2{}^{3}x^{21}y^6+\frac{2543471569361945396 56483}{5878331643930042240598016000}\,w_1{}^{9}w_2x^{21}y^6+\frac{49335}{1270932914164}\,w_3x^{21}y^6+$$
$$\frac{8611797711}{14453781992000}\,w_1{}^{5}w_2{}^{2}x^{21}y^6+\frac{3075560310063687244626663}{75242645042304540679654604800 0}\,w_1{}^{13}x^{21}y^6+$$
$$\frac{5892144234330075210 8603}{29391658219650211202990080 0}\,w_1{}^{9}w_2x^{20}y^7+\frac{19838148887283659060 3041}{94053306302880675849565825600}\,w_1{}^{13}x^{20}y^7+$$
$$\frac{9623062910291105 37}{71756978075317898444800}\,w_1w_2{}^{3}x^{20}y^7+\frac{6901035491}{28907562598400}\,w_1{}^{5}w_2{}^{2}x^{20}y^7+\frac{148005}{1270932914164}\,w_3x^{20}y^7+$$

$$\frac{3390100727}{4516806656000}\,w_1{}^{5}w_2{}^{2}x^{19}y^8+\frac{740025}{2541865828328}\,w_3x^{19}y^8+\frac{61120546325904350999914437}{75242645042304540679654604800 0}\,w_1{}^{13}x^{19}y^8+$$
$$\frac{41721963589031259599 61867}{58783316439300422405 98016000}\,w_1{}^{9}w_2x^{19}y^8+\frac{25827486008816442477}{71756978075317898444800}\,w_1w_2{}^{3}x^{19}y^8+$$
$$\frac{57412404354565159299}{71756978075317898444800}\,w_1w_2{}^{3}x^{18}y^9+\frac{23193036206363738810530693}{11756663287860084481196032000}\,w_1{}^{9}w_2x^{18}y^9+$$
$$\frac{548291942721}{289075625984000}\,w_1{}^{5}w_2{}^{2}x^{18}y^9+\frac{18126798253659865665667797739}{75242645042304540679654604800 0}\,w_1{}^{13}x^{18}y^9+\frac{1562275}{2541865828328}\,w_3x^{18}y^9+$$
$$\frac{2812095}{2541865828328}\,w_3x^{17}y^{10}+\frac{25785883271905478504436229}{58783316439300422405 9801600}\,w_1{}^{9}w_2x^{17}y^{10}+\frac{53626975541617873413}{35878489037658949222400}\,w_1w_2{}^{3}x^{17}y^{10}+$$
$$\frac{21159810069888063959331309}{37621322521152270339827302400}\,w_1{}^{13}x^{17}y^{10}+\frac{22649317947}{5781512519680}\,w_1{}^{5}w_2{}^{2}x^{17}y^{10}+\frac{4345965}{2541865828328}\,w_3x^{16}y^{11}+$$
$$\frac{631873778650305449624763 7}{60194116033843632543723683 84}\,w_1{}^{13}x^{16}y^{11}+\frac{18591512925539045762991261}{2351332657572016896239206400}\,w_1{}^{9}w_2x^{16}y^{11}+$$
$$\frac{340171871272121049 39}{14351395615056357968896 00}\,w_1w_2{}^{3}x^{16}y^{11}+\frac{386800517919}{57815125196800}\,w_1{}^{5}w_2{}^{2}x^{16}y^{11}+$$
$$\frac{595435147501409953025653607}{37621322521152270339827302400}\,w_1{}^{13}x^{15}y^{12}+\frac{576276352202617837 01}{17939244518829474611200}\,w_1w_2{}^{3}x^{15}y^{12}+$$
$$\frac{428266943695181095292170 9}{36739572774562764003737600 0}\,w_1{}^{9}w_2x^{15}y^{12}+\frac{344030839347}{36134453248000}\,w_1{}^{5}w_2{}^{2}x^{15}y^{12}+\frac{1448655}{635466457082}\,w_3x^{15}y^{12}+$$
$$\frac{81986755151}{7226890649600}\,w_1{}^{5}w_2{}^{2}x^{14}y^{13}+\frac{6702160823117772801}{17939244518829474611200}\,w_1w_2{}^{3}x^{14}y^{13}+\frac{1671525}{635466457082}\,w_3x^{14}y^{13}+$$
$$\frac{166177711529152122682968 61}{11756663287860084481196032 00}\,w_1{}^{9}w_2x^{14}y^{13}+\frac{58399111913846239457300593}{30097058016921816271861841920}\,w_1{}^{13}x^{14}y^{13}+$$
$$\frac{583991119138462394573006 93}{30097058016921816271861841920}\,w_1{}^{13}x^{13}y^{14}+\frac{166177711529152122682968 61}{11756663287860084481196032 00}\,w_1{}^{9}w_2x^{13}y^{14}+\frac{1671525}{635466457082}\,w_3x^{13}y^{14}+$$
$$\frac{81986755151}{7226890649600}\,w_1{}^{5}w_2{}^{2}x^{13}y^{14}+\frac{6702160823117772801}{17939244518829474611200}\,w_1w_2{}^{3}x^{13}y^{14}+\frac{42826694369518109529217 09}{36739572774562764003737600 0}\,w_1{}^{9}w_2x^{12}y^{15}+$$
$$\frac{576276352202617837 01}{17939244518829474611200}\,w_1w_2{}^{3}x^{12}y^{15}+\frac{5954351475014099530256536 07}{37621322521152270339827302400}\,w_1{}^{13}x^{12}y^{15}+\frac{1448655}{635466457082}\,w_3x^{12}y^{15}+$$
$$\frac{344030839347}{36134453248000}\,w_1{}^{5}w_2{}^{2}x^{12}y^{15}+\frac{386800517919}{57815125196800}\,w_1{}^{5}w_2{}^{2}x^{11}y^{16}+\frac{631873778650305449624763 7}{60194116033843632543723683 84}\,w_1{}^{13}x^{11}y^{16}+$$
$$\frac{340171871272121049 39}{14351395615063579688960 0}\,w_1w_2{}^{3}x^{11}y^{16}+\frac{4345965}{2541865828328}\,w_3x^{11}y^{16}+\frac{18591512925539045762991261}{2351332657572016896239206400}\,w_1{}^{9}w_2x^{11}y^{16}+$$
$$\frac{211598100698880639593313 09}{37621322521152270339827302400}\,w_1{}^{13}x^{10}y^{17}+\frac{2812095}{2541865828328}\,w_3x^{10}y^{17}+\frac{25785883271905478504362 29}{58783316439300422405 9801600}\,w_1{}^{9}w_2x^{10}y^{17}+$$
$$\frac{536269755416178741 3}{35878489037658949222400}\,w_1w_2{}^{3}x^{10}y^{17}+\frac{22649317947}{5781512519680}\,w_1{}^{5}w_2{}^{2}x^{10}y^{17}+\frac{548291942721}{289075625984000}\,w_1{}^{5}w_2{}^{2}x^{9}y^{18}+$$
$$\frac{1562275}{2541865828328}\,w_3x^{9}y^{18}+\frac{18126798253659865665667797739}{75242645042304540679654604800}\,w_1{}^{13}x^{9}y^{18}+\frac{23193036206363738810530693}{11756663287860084481196032000}\,w_1{}^{9}w_2x^{9}y^{18}+$$
$$\frac{574124043545651592 99}{71756978075317898444800}\,w_1w_2{}^{3}x^{9}y^{18}+\frac{41721963589031259599 61867}{58783316439300422405 98016000}\,w_1{}^{9}w_2x^{8}y^{19}+\frac{740025}{2541865828328}\,w_3x^{8}y^{19}+$$
$$\frac{258274860088164424 77}{71756978075317898444800}\,w_1w_2{}^{3}x^{8}y^{19}+\frac{3390100727}{4516806656000}\,w_1{}^{5}w_2{}^{2}x^{8}y^{19}+\frac{61120546325904350999914437}{75242645042304540679654604800}\,w_1{}^{13}x^{8}y^{19}+$$
$$\frac{19838148887283659060 3041}{94053306302880675849565825600}\,w_1{}^{13}x^{7}y^{20}+\frac{6901035491}{28907562598400}\,w_1{}^{5}w_2{}^{2}x^{7}y^{20}+\frac{148005}{1270932914164}\,w_3x^{7}y^{20}+$$
$$\frac{5892144234330075210 8603}{29391658219650211202990080 0}\,w_1{}^{9}w_2x^{7}y^{20}+\frac{962306291029110537}{71756978075317898444800}\,w_1w_2{}^{3}x^{7}y^{20}+$$
$$\frac{861179771 1}{14453781992000}\,w_1{}^{5}w_2{}^{2}x^{6}y^{21}+\frac{3075560310063687244626663}{75242645042304540679654604800}\,w_1{}^{13}x^{6}y^{21}+$$
$$\frac{25434715693619453965648 3}{58783316439300422405 98016000}\,w_1{}^{9}w_2x^{6}y^{21}+\frac{3634500845333676481}{8969622259414737306000}\,w_1w_2{}^{3}x^{6}y^{21}+\frac{49335}{1270932914164}\,w_3x^{6}y^{21}+$$
$$\frac{2016408655807304297 2131}{29391658219650211202990080 0}\,w_1{}^{9}w_2x^{5}y^{22}+\frac{1627962309}{144537812992000}\,w_1{}^{5}w_2{}^{2}x^{5}y^{22}+$$
$$\frac{4250225566510811750737 67}{75242645042304540679654604800}\,w_1{}^{13}x^{5}y^{22}+\frac{8632318494882066 9}{8969622259414737306000}\,w_1w_2{}^{3}x^{5}y^{22}+\frac{13455}{1270932914164}\,w_3x^{5}y^{22}+$$
$$\frac{6144983395854036 9}{35878489037658949222400}\,w_1w_2{}^{3}x^{4}y^{23}+\frac{2925}{1270932914164}\,w_3x^{4}y^{23}+\frac{19549002072374311637169}{37621322521152270339827302400}\,w_1{}^{13}x^{4}y^{23}+$$
$$\frac{55212489}{36134453248000}\,w_1{}^{5}w_2{}^{2}x^{4}y^{23}+\frac{44231816956532157397213}{5878331643930042240598016000}\,w_1{}^{9}w_2x^{4}y^{23}+\frac{975}{2541865828328}\,w_3x^{3}y^{24}+$$
$$\frac{151415469479488 31}{71756978075317898444800}\,w_1w_2{}^{3}x^{3}y^{24}+\frac{39367539}{289075625984000}\,w_1{}^{5}w_2{}^{2}x^{3}y^{24}+$$
$$\frac{6083773181964095601807}{1175666328786008448119603200}\,w_1{}^{9}w_2x^{3}y^{24}+\frac{1071083807072638410023}{37621322521152270339827302400}\,w_1{}^{13}x^{3}y^{24}+$$
$$\frac{97929}{1445378129920 0}\,w_1{}^{5}w_2{}^{2}x^{2}y^{25}+\frac{117}{2541865828328}\,w_3x^{2}y^{25}+\frac{22875935627577698991}{30097058016921816271861841920 0}\,w_1{}^{13}x^{2}y^{25}+$$
$$\frac{111386741765091}{71756978075317898444800}\,w_1w_2{}^{3}x^{2}y^{25}+\frac{4381699990172026977}{2351332657572016896239206400}\,w_1{}^{9}w_2x^{2}y^{25}+$$
$$\frac{1360977467191839 63}{5878331643930042240598016000}\,w_1{}^{9}w_2xy^{26}+\frac{8552331506607}{17939244518829474611200}\,w_1w_2{}^{3}xy^{26}+\frac{9}{2541865828328}\,w_3xy^{26}+$$
$$\frac{37017}{289075625984000}\,w_1{}^{5}w_2{}^{2}xy^{26}+\frac{945846228118686561}{150485290084609081359309209600}\,w_1{}^{13}xy^{26}$$

Some values of the n-series are:

$$[2]_W(x)=(2\,x+1/4\,w_1x^3+1/8\,w_1{}^2x^5+\tfrac{5}{64}\,w_1{}^3x^7+(\tfrac{17}{656}\,w_2+\tfrac{1139}{20992}\,w_1{}^4)x^9+(\tfrac{277}{6560}\,w_1w_2+$$
$$\tfrac{4257}{104960}\,w_1{}^5)x^{11}+(\tfrac{1407}{26240}\,w_1{}^2w_2+\tfrac{53443}{1679360}\,w_1{}^6)x^{13}+(\tfrac{26013}{419840}\,w_1{}^3w_2+\tfrac{347231}{13434880}\,w_1{}^7)x^{15}+(\tfrac{5932661}{275415040}\,w_1{}^8+$$
$$\tfrac{234445}{3442688}\,w_1{}^4w_2+\tfrac{51}{16810}\,w_2{}^2)x^{17}+(\tfrac{201802961}{11016601600}\,w_1{}^9+\tfrac{25017681}{344268800}\,w_1{}^5w_2+\tfrac{415801}{43033600}\,w_1w_2{}^2)x^{19}+$$
$$(\tfrac{838301471}{11016601600}\,w_1{}^6w_2+\tfrac{174396573}{11016601600}\,w_1{}^{10}+\tfrac{6831589}{344268800}\,w_1{}^2w_2{}^2)x^{21}+(\tfrac{2443375297}{176265625600}\,w_1{}^{11}+\tfrac{433331597}{5508300800}\,w_1{}^7w_2+$$

$\frac{11476361}{344268800}\,w_1{}^3w_2{}^2)x^{23} + (\frac{14127}{27568400}\,w_2{}^3 + \frac{145621864191}{1806722662400}\,w_1{}^8w_2 + \frac{5622974101}{112920166400}\,w_1{}^4w_2{}^2 +$
$\frac{2838085815991}{231260500787200}\,w_1{}^{12})x^{25} + (\frac{22369621}{1270932914164}\,w_3 + \frac{32231933173696755967497999}{2939165821965021120299008000}\,w_1{}^{13} +$
$\frac{2181342973115489277763}{8969622259414737305600 0}\,w_1w_2{}^3 + \frac{941885896254937320712897}{1148111649205086375116 8000}\,w_1{}^9w_2 + \frac{311044272969}{4516806656000}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[3]_W(x) = (3\,x + w_1x^3 + \frac{9}{8}\,w_1{}^2x^5 + \frac{105}{64}\,w_1{}^3x^7 + (w_2 + \frac{1377}{512}\,w_1{}^4)x^9 + (\frac{27063}{6560}\,w_1w_2 + \frac{3985389}{839680}\,w_1{}^5)x^{11} +$
$(\frac{335013}{26240}\,w_1{}^2w_2 + \frac{59092773}{6717440}\,w_1{}^6)x^{13} + (\frac{14888197}{419840}\,w_1{}^3w_2 + \frac{907229781}{53739520}\,w_1{}^7)x^{15} + (\frac{2859206553}{85983232}\,w_1{}^8 +$
$\frac{2444787}{26240}\,w_1{}^4w_2 + \frac{19683}{6560}\,w_2{}^2)x^{17} + (\frac{47125533252921}{705062502400}\,w_1{}^9 + \frac{1305084701079}{5508300800}\,w_1{}^5w_2 + \frac{1038400449}{43033600}\,w_1w_2{}^2)x^{19} +$
$(\frac{13001825049983}{22033203200}\,w_1{}^6w_2 + \frac{770136329076849}{5640500019200}\,w_1{}^{10} + \frac{42093100711}{344268800}\,w_1{}^2w_2{}^2)x^{21} + (\frac{12753311865572673}{45124000153600}\,w_1{}^{11} +$
$\frac{510885470342637}{352531251200}\,w_1{}^7w_2 + \frac{688866052491}{1377075200}\,w_1{}^3w_2{}^2)x^{23} + (\frac{559581129}{43033600}\,w_2{}^3 + \frac{2484550168220583}{705062502400}\,w_1{}^8w_2 +$
$\frac{19896533323347}{11016601600}\,w_1{}^4w_2{}^2 + \frac{213532277359138857}{360992001228800}\,w_1{}^{12})x^{25} + (w_3 + \frac{739786458803938484949}{592026882015232000}\,w_1{}^{13} +$
$\frac{43934665615767}{282300416000}\,w_1w_2{}^3 + \frac{39346846824183834919}{4625210015744000}\,w_1{}^9w_2 + \frac{217057782896487363}{36134453248000}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[4]_W(x) = (4\,x + 5/2\,w_1x^3 + 5\,w_1{}^2x^5 + \frac{105}{8}\,w_1{}^3x^7 + (\frac{4369}{328}\,w_2 + \frac{25483}{656}\,w_1{}^4)x^9 + (\frac{16657}{164}\,w_1w_2 +$
$\frac{162411}{1312}\,w_1{}^5)x^{11} + (\frac{376285}{656}\,w_1{}^2w_2 + \frac{4348865}{10496}\,w_1{}^6)x^{13} + (\frac{30374793}{10496}\,w_1{}^3w_2 + \frac{30146331}{20992}\,w_1{}^7)x^{15} +$
$(\frac{21986377399}{4303360}\,w_1{}^8 + \frac{7414882441}{537920}\,w_1{}^4w_2 + \frac{3355392}{8405}\,w_2{}^2)x^{17} + (\frac{1277147679637}{68853760}\,w_1{}^9 + \frac{273189173479}{4303360}\,w_1{}^5w_2 +$
$\frac{6376771493}{1075840}\,w_1w_2{}^2)x^{19} + (\frac{19703222881573}{68853760}\,w_1{}^6w_2 + \frac{9424797774483}{137707520}\,w_1{}^{10} + \frac{473636125993}{8606720}\,w_1{}^2w_2{}^2)x^{21} +$
$(\frac{35238975769269}{137707520}\,w_1{}^{11} + \frac{5471196084359}{4303360}\,w_1{}^7w_2 + \frac{883847223821}{2151680}\,w_1{}^3w_2{}^2)x^{23} + (\frac{29777845728}{1723025}\,w_2{}^3 +$
$\frac{78920381224270903}{14115020800}\,w_1{}^8w_2 + \frac{9523127148241757}{3528755200}\,w_1{}^4w_2{}^2 + \frac{436956342802597457}{451680665600}\,w_1{}^{12})x^{25} + (\frac{1501199875790165}{635466457082}\,w_3 +$
$\frac{211910931428883413036600869007}{57405582460254318755840}\,w_1{}^{13} + \frac{34237785266207481617103567}{8969622259414737056}\,w_1w_2{}^3 +$
$\frac{700546214733121020062051777697}{28702791230127159377920}\,w_1{}^9w_2 + \frac{184134014519927607}{11292016640}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[5]_W(x) =$
$(5\,x + 5\,w_1x^3 + \frac{125}{8}\,w_1{}^2x^5 + \frac{4125}{64}\,w_1{}^3x^7 + (\frac{4069}{41}\,w_2 + \frac{6300653}{20992}\,w_1{}^4)x^9 + (\frac{1578775}{1312}\,w_1w_2 + \frac{252741325}{167936}\,w_1{}^5)x^{11} +$
$(\frac{1375325}{128}\,w_1{}^2w_2 + \frac{259741325}{32768}\,w_1{}^6)x^{13} + (\frac{7181524725}{83968}\,w_1{}^3w_2 + \frac{464673339725}{10747904}\,w_1{}^7)x^{15} + (\frac{853297543153125}{3525312512}\,w_1{}^8 +$
$\frac{552692121875}{860672}\,w_1{}^4w_2 + \frac{953671875}{53792}\,w_2{}^2)x^{17} + (\frac{39001136346544485}{28202500096}\,w_1{}^9 + \frac{1026672039275115}{220332032}\,w_1{}^5w_2 +$
$\frac{720128905165}{1721344}\,w_1w_2{}^2)x^{19} + (\frac{2915808974118835}{881328128}\,w_1{}^6w_2 + \frac{181172119839426100 5}{225620000768}\,w_1{}^{10} + \frac{84722631941195}{13770752}\,w_1{}^2w_2{}^2)x^{21} +$
$(\frac{852822116240889148125}{1804960006144}\,w_1{}^{11} + \frac{326418704921214562 5}{14101250048}\,w_1{}^7w_2 + \frac{3999004962349375}{55083008}\,w_1{}^3w_2{}^2)x^{23} + (\frac{322857411703125}{70575104}\,w_2{}^3 +$
$\frac{1853512919989233156875}{1156302503936}\,w_1{}^8w_2 + \frac{1360734230777072937 5}{18067226624}\,w_1{}^4w_2{}^2 + \frac{166418297914736067988125}{592026880215232}\,w_1{}^{12})x^{25} +$
$(\frac{310440858205159505}{317733228541}\,w_3 + \frac{2540245213066459950045309659673580745}{1504852900846090813593092096}\,w_1{}^{13} + \frac{1152081775043543592001474583 23}{7175697807531789844 48}\,w_1w_2{}^3 +$
$\frac{1295225449536567634435058672545 0659}{1175666328786008448119 6032}\,w_1{}^9w_2 + \frac{2075657555609668714267}{289075625984}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[6]_W(x) = (6\,x + \frac{35}{4}\,w_1x^3 + \frac{315}{8}\,w_1{}^2x^5 + \frac{15015}{64}\,w_1{}^3x^7 + (\frac{335923}{656}\,w_2 + \frac{33148801}{20992}\,w_1{}^4)x^9 + (\frac{11841291}{1312}\,w_1w_2 +$
$\frac{240250311}{20992}\,w_1{}^5)x^{11} + (\frac{612891825}{5248}\,w_1{}^2w_2 + \frac{29265062085}{335872}\,w_1{}^6)x^{13} + (\frac{112988171779}{83968}\,w_1{}^3w_2 + \frac{1845812089513}{2686976}\,w_1{}^7)x^{15} +$
$(\frac{1531123674739911}{275415040}\,w_1{}^8 + \frac{251618568159987}{17213440}\,w_1{}^4w_2 + \frac{6611972409}{16810}\,w_2{}^2)x^{17} + (\frac{101160295529913039}{1760437760}\,w_1{}^9 +$
$\frac{10563624801452919}{68853760}\,w_1{}^5w_2 + \frac{116088629021799}{8606720}\,w_1w_2{}^2)x^{19} + (\frac{3471078620332574601}{2203320320}\,w_1{}^6w_2 + \frac{424550437647991949}{1101660160}\,w_1{}^{10} +$
$\frac{19811709154694779}{68853760}\,w_1{}^2w_2{}^2)x^{21} + (\frac{1155534434204950349 9}{35253125120}\,w_1{}^{11} + \frac{17559827441886457539}{1101660160}\,w_1{}^7w_2 +$
$\frac{338769181815606927}{68853760}\,w_1{}^3w_2{}^2)x^{23} + (\frac{12031036999867053}{27568400}\,w_2{}^3 + \frac{2883565731182300 63675949}{1806722662400}\,w_1{}^8w_2 +$
$\frac{834659551397503463223 9}{112920166400}\,w_1{}^4w_2{}^2 + \frac{6519030274852766658665349}{231260500787200}\,w_1{}^{12})x^{25} + (\frac{17058172819757820825 5}{1270932914164}\,w_3 +$
$\frac{2876840755747933714748356146988710283 7}{1175666328786008448119 6032}\,w_1{}^{13} + \frac{7984884911724079584814941242653 7}{3587848903765894922240}\,w_1w_2{}^3 +$
$\frac{1456754474723224679750311590666 13563}{9184893193640691000 9344}\,w_1{}^9w_2 + \frac{184300851697665735180883}{180672266240}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[7]_W(x) = (7\,x + 14\,w_1x^3 + \frac{343}{4}\,w_1{}^2x^5 + \frac{22295}{32}\,w_1{}^3x^7 + (\frac{84070}{41}\,w_2 + \frac{67144735}{10496}\,w_1{}^4)x^9 + (\frac{162255121}{3280}\,w_1w_2 +$
$\frac{26554559563}{419840}\,w_1{}^5)x^{11} + (\frac{11474295651}{13120}\,w_1{}^2w_2 + \frac{2206339129771}{3358720}\,w_1{}^6)x^{13} + (\frac{2888162245899}{209920}\,w_1{}^3w_2 +$
$\frac{189842247210427}{26869760}\,w_1{}^7)x^{15} + (\frac{68746572032759569 9}{8813281280}\,w_1{}^8 + \frac{877914416424493}{4303360}\,w_1{}^4w_2 + \frac{145394046021}{26896}\,w_2{}^2)x^{17} +$
$(\frac{309819021267701332527}{352531251200}\,w_1{}^9 + \frac{8048158064067371873}{2754150400}\,w_1{}^5w_2 + \frac{5458739032839463}{21516800}\,w_1w_2{}^2)x^{19} +$

$(\frac{4510986068480707891321}{11016601600}\,w_1{}^6w_2 + \frac{2838152136028192172846 3}{2820250009600}\,w_1{}^{10} + \frac{1273571189554579657}{172134400}\,w_1{}^2w_2{}^2)x^{21} +$
$(\frac{2634623269517712114388831}{22562000076800}\,w_1{}^{11} + \frac{9964698574827857842993 9}{176265625600}\,w_1{}^7w_2 + \frac{1190123759797931826 77}{688537600}\,w_1{}^3w_2{}^2)x^{23} +$
$(\frac{3632060021023534863}{176437760}\,w_2{}^3 + \frac{2232761096189229434588681}{2890756259840}\,w_1{}^8w_2 + \frac{1601840693103111237 43169}{45168066560}\,w_1{}^4w_2{}^2 +$
$\frac{2027722290213309791949450379}{1480067205038080}\,w_1{}^{12})x^{25} + (\frac{2738015098480595005814}{317733228541}\,w_3 +$
$\frac{1525954565018618477486235427106248708302903}{940533063028806758495682560 00}\,w_1{}^{13} + \frac{6443017901274316989559474043621914 9}{448481112970736865280 00}\,w_1w_2{}^3 +$
$\frac{7695270667280116484244044923748218808729 3}{7347914554912552800747520 00}\,w_1{}^9w_2 + \frac{1207346259938199937945018021}{18067226624000}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[8]_W(x) = (8\,x + 21\,w_1x^3 + 168\,w_1{}^2x^5 + 1785\,w_1{}^3x^7 + (\frac{1118481}{164}\,w_2 + \frac{28126273}{1312}\,w_1{}^4)x^9 +$
$(\frac{44214954}{205}\,w_1w_2 + \frac{227339441}{820}\,w_1{}^5)x^{11} + (\frac{2046995097}{410}\,w_1{}^2w_2 + \frac{12353716291}{3280}\,w_1{}^6)x^{13} + (\frac{674326988013}{6560}\,w_1{}^3w_2 +$
$\frac{2780808010589}{52480}\,w_1{}^7)x^{15} + (\frac{102906743600997}{134480}\,w_1{}^8 + \frac{33526482113481}{16810}\,w_1{}^4w_2 + \frac{439804624896}{8405}\,w_2{}^2)x^{17} +$
$(\frac{4853070708190079 69}{43033600}\,w_1{}^9 + \frac{100532360199199173}{2689600}\,w_1{}^5w_2 + \frac{216432749374841}{672400}\,w_1w_2{}^2)x^{19} +$
$(\frac{1474409743575523167}{21516800}\,w_1{}^6w_2 + \frac{5815281573625753361}{344268800}\,w_1{}^{10} + \frac{661407536827946349}{5379200}\,w_1{}^2w_2{}^2)x^{21} +$
$(\frac{5516589928418892348 9}{21516800}\,w_1{}^{11} + \frac{166441280431382521 53}{1344800}\,w_1{}^7w_2 + \frac{126443862034017488 1}{336200}\,w_1{}^3w_2{}^2)x^{23} +$
$(\frac{9991985594438611504}{1723025}\,w_2{}^3 + \frac{9757697737599407299949 7}{441094400}\,w_1{}^8w_2 + \frac{1113852604479264406329 3}{110273600}\,w_1{}^4w_2{}^2 +$
$\frac{2776886417248741539741 09}{7057510400}\,w_1{}^{12})x^{25} + (\frac{1007438183012190978921 81}{317733228541}\,w_3 +$
$\frac{4373599072912451840190278264030000396591}{7175697807531789844 8000}\,w_1{}^{13} + \frac{7434274890151951649298227569930376 3}{1401503478033552704000}\,w_1w_2{}^3 +$
$\frac{3519561794403568002612123926690908369 61}{8969622259414737056000}\,w_1{}^9w_2 + \frac{8790095748202511730901949 7}{35287552000}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[9]_W(x) = (9\,x + 30\,w_1x^3 + \frac{1215}{4}\,w_1{}^2x^5 + \frac{130815}{32}\,w_1{}^3x^7 + (19686\,w_2 + \frac{15922831}{256}\,w_1{}^4)x^9 +$
$(\frac{518174901}{656}\,w_1w_2 + \frac{85568408343}{83968}\,w_1{}^5)x^{11} + (\frac{60825823695}{2624}\,w_1{}^2w_2 + \frac{11781643784535}{671744}\,w_1{}^6)x^{13} +$
$(\frac{25394783254839}{41984}\,w_1{}^3w_2 + \frac{1679929256036007}{5373952}\,w_1{}^7)x^{15} + (\frac{12292744437033380 19}{214958080}\,w_1{}^8 + \frac{1560936149181441}{104960}\,w_1{}^4w_2 +$
$\frac{1271126624409}{3280}\,w_2{}^2)x^{17} + (\frac{7529103999813151689291}{70506250240}\,w_1{}^9 + \frac{1945334582331140 07909}{550830080}\,w_1{}^5w_2 +$
$\frac{130151503609663779}{4303360}\,w_1w_2{}^2)x^{19} + (\frac{1807490855153703544 8957}{2203320320}\,w_1{}^6w_2 + \frac{1142988057421266839884491}{564050001920}\,w_1{}^{10} +$
$\frac{5043619788536782701 89}{34426880}\,w_1{}^2w_2{}^2)x^{21} + (\frac{1758313247249478564247403 79}{4512400015360}\,w_1{}^{11} + \frac{6618303176903570911635711}{35253125120}\,w_1{}^7w_2 +$
$\frac{7823081673634408952553}{137707520}\,w_1{}^3w_2{}^2)x^{23} + (\frac{2371106086505722330 7}{21516800}\,w_2{}^3 + \frac{1498782827549333438898901389}{352531251200}\,w_1{}^8w_2 +$
$\frac{1065240738603739324850930 1}{5508300800}\,w_1{}^4w_2{}^2 + \frac{1367460228804266069457720530 31}{180496000614400}\,w_1{}^{12})x^{25} + (7625597484990\,w_3 +$
$\frac{1760483140317911081227460644674 27}{11840537640304640}\,w_1{}^{13} + \frac{7220060250525627413266609}{5646000320}\,w_1w_2{}^3 +$
$\frac{8838424354969920179541058935649}{92504200314880}\,w_1{}^9w_2 + \frac{4368212839013094165313601075 7}{722689064960}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[10]_W(x) = (10\,x + \frac{165}{4}\,w_1x^3 + \frac{4125}{8}\,w_1{}^2x^5 + \frac{548625}{64}\,w_1{}^3x^7 + (\frac{33333333}{656}\,w_2 + \frac{3382535431}{20992}\,w_1{}^4)x^9 +$
$(\frac{3308333325}{1312}\,w_1w_2 + \frac{68467553825}{20992}\,w_1{}^5)x^{11} + (\frac{480016665975}{5248}\,w_1{}^2w_2 + \frac{23293374104275}{335872}\,w_1{}^6)x^{13} +$
$(\frac{247659233075925}{83968}\,w_1{}^3w_2 + \frac{4103402976328975}{2686976}\,w_1{}^7)x^{15} + (\frac{1901417538092428125}{55083008}\,w_1{}^8 + \frac{308489837546240625}{3442688}\,w_1{}^4w_2 +$
$\frac{7812499921875}{3362}\,w_2{}^2)x^{17} + (\frac{3508828432752721770 45}{440664064}\,w_1{}^9 + \frac{3620736315272751724 5}{13770752}\,w_1{}^5w_2 +$
$\frac{3860555531244444 45}{1721344}\,w_1w_2{}^2)x^{19} + (\frac{3325343926419750167 9715}{440664064}\,w_1{}^6w_2 + \frac{1028274415756475290865}{55083008}\,w_1{}^{10} +$
$\frac{1849519991655400001 85}{13770752}\,w_1{}^2w_2{}^2)x^{21} + (\frac{3126887830591559294968125}{7050625024}\,w_1{}^{11} + \frac{4701285530491602036806 25}{220332032}\,w_1{}^7w_2 +$
$\frac{8864718302271621673125}{1102736}\,w_1{}^3w_2{}^2)x^{23} + (\frac{1692708311197916718 75}{13770752}\,w_2{}^3 + \frac{4314556848339266807503891875}{72268906496}\,w_1{}^8w_2 +$
$\frac{1223282649246213203838506 25}{4516806656}\,w_1{}^4w_2{}^2 + \frac{9854475692261299951432537 6875}{9250420031488}\,w_1{}^{12})x^{25} + (\frac{1666666666666666666666666665}{1270932914164}\,w_3 +$
$\frac{6073353085996716299562365814984492506354599}{2351332657572016896239206 4}\,w_1{}^{13} + \frac{1580722975770198822779334703455692161 9}{7175697807531789844 48}\,w_1w_2{}^3 +$
$\frac{1522581668149002998423236449656114296462 13}{9184893193640691000 9344}\,w_1{}^9w_2 + \frac{3779924972546989017623522 8017}{36134453248}\,w_1{}^5w_2{}^2)x^{27} + O(x^{29}))$

$[11]_W(x) = (11\,x + 55\,w_1x^3 + \frac{6655}{8}\,w_1{}^2x^5 + \frac{1071455}{64}\,w_1{}^3x^7 + (\frac{4912391}{41}\,w_2 + \frac{7997449647}{20992}\,w_1{}^4)x^9 +$
$(\frac{9451440317}{1312}\,w_1w_2 + \frac{1567822834831}{167936}\,w_1{}^5)x^{11} + (\frac{1660790980695}{5248}\,w_1{}^2w_2 + \frac{322871042383175}{1343488}\,w_1{}^6)x^{13} +$
$(\frac{1037561453757543}{83968}\,w_1{}^3w_2 + \frac{68858329726111959}{10747904}\,w_1{}^7)x^{15} + (\frac{3090267467497002013683}{17626562560}\,w_1{}^8 +$
$\frac{1956056364346162331}{4303360}\,w_1{}^4w_2 + \frac{3159043913383413}{268960}\,w_2{}^2)x^{17} + (\frac{6903946068177120417423 87}{141012500480}\,w_1{}^9 +$

$$\frac{17789875839862477078013}{1101660160} w_1{}^5 w_2 + \frac{11820440334551198603}{8606720} w_1 w_2{}^2)x^{19} + (\frac{24726842868442600923897909}{4406640640} w_1{}^6 w_2 + \frac{156762152185950873202908267}{1128100003840} w_1{}^{10} + \frac{6859182926016666140093}{68853760} w_1{}^2 w_2{}^2)x^{21} + (\frac{360696272379124606308613123923}{9024800030720} w_1{}^{11} + \frac{13543388574528770192810 8607}{70506250240} w_1{}^7 w_2 + \frac{15925917840457390706979 61}{275415040} w_1{}^3 w_2{}^2)x^{23} + (\frac{29343995084331018989324 79}{1764377600} w_2{}^3 + \frac{18810646344186532415709554805633}{2890756259840 0} w_1{}^8 w_2 + \frac{13306502294631094780980662679 7}{451680665600} w_1{}^4 w_2{}^2 + \frac{17202444787935915870314615356456 07}{14800672050380800} w_1{}^{12})x^{25} + (\frac{5462497579791637652942275 15}{317733228541} w_3 + \frac{51340791362025146455258763874528244205 4585161 9}{150485290084609081359309209 6} w_1{}^{13} + \frac{10374687557000039814819485934415434243 41}{3587848903765894922240} w_1 w_2{}^3 + \frac{12858803496289463849837629865879795179 47023749}{587833164393004224059801 60} w_1{}^9 w_2 + \frac{19915111607726620079651178341261}{1445378129920} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[12]_W(x) =$$
$$(12\,x + \frac{143}{2} w_1 x^3 + 1287\, w_1{}^2 x^5 + \frac{246675}{8} w_1{}^3 x^7 + (\frac{85996339}{328} w_2 + \frac{548013323}{656} w_1{}^4)x^9 + (\frac{15398719479}{820} w_1 w_2 + \frac{159880935357}{6560} w_1{}^5)x^{11} + (\frac{3222336576459}{3280} w_1{}^2 w_2 + \frac{39199452113679}{52480} w_1{}^6)x^{13} + (\frac{2397101432991551}{52480} w_1{}^3 w_2 + \frac{2488281076259407}{104960} w_1{}^7)x^{15} + (\frac{3323774629692794277}{4303360} w_1{}^8 + \frac{1076163366406137867}{537920} w_1{}^4 w_2 + \frac{433322480777472}{8405} w_2{}^2)x^{17} + (\frac{884068133095607 5409523}{344268800} w_1{}^9 + \frac{1820841541608425548641}{21516800} w_1{}^5 w_2 + \frac{3862925478633907814 7}{5379200} w_1 w_2{}^2)x^{19} + (\frac{1205321954325922522292203}{344268800} w_1{}^6 w_2 + \frac{5974789757140368015453 03}{688537600} w_1{}^{10} + \frac{2669744102667554437183}{43033600} w_1{}^2 w_2{}^2)x^{21} + (\frac{2045908837335240287361 7947}{688537600} w_1{}^{11} + \frac{3070460121458346150702597}{21516800} w_1{}^7 w_2 + \frac{4613687837718220807461 63}{10758400} w_1{}^3 w_2{}^2)x^{23} + (\frac{2523093287356075620700 8}{1723025} w_2{}^3 + \frac{8123735648631403660785713373 3}{14115020800} w_1{}^8 w_2 + \frac{9180678061713025280318918727}{3528755200} w_1{}^4 w_2{}^2 + \frac{4646737005627216311691110358 27}{451680665600} w_1{}^{12})x^{25} + (\frac{1144754599728828155521558 1183}{635466457082} w_3 + \frac{5159693246494051787823829109629931979505 1383}{14351395615063579689600 0} w_1{}^{13} + \frac{3400412347749364711426153364779938641280 1}{1121202782426842163200 0} w_1 w_2{}^3 + \frac{1652941417967194420963526935785129239478646547}{7175697807531789844480 00} w_1{}^9 w_2 + \frac{4090266873872129976625540264366 9}{282300416000} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[13]_W(x) =$$
$$(13\,x + 91\, w_1 x^3 + \frac{15379}{8} w_1{}^2 x^5 + \frac{3460275}{64} w_1{}^3 x^7 + (\frac{22092707}{41} w_2 + \frac{36098900019}{20992} w_1{}^4)x^9 + (\frac{297367836493}{6560} w_1 w_2 + \frac{49455912785279}{839680} w_1{}^5)x^{11} + (\frac{73068756427303}{26240} w_1{}^2 w_2 + \frac{14235119281173063}{6717440} w_1{}^6)x^{13} + (\frac{63820132884001767}{419840} w_1{}^3 w_2 + \frac{424327093652473839 1}{53739520} w_1{}^7)x^{15} + (\frac{5323331188007968540250 3}{17626562560} w_1{}^8 + \frac{1681947951232486182 7}{2151680} w_1{}^4 w_2 + \frac{5406509942985524 1}{268960} w_2{}^2)x^{17} + (\frac{8311291307460863538175277 1}{70506250240} w_1{}^9 + \frac{2138308080641248688474029}{5508300800} w_1{}^5 w_2 + \frac{1415184014386003196699}{43033600} w_1 w_2{}^2)x^{19} + (\frac{4154506111600698672157867 33}{22033203200} w_1{}^6 w_2 + \frac{2637706044125758514924388826 99}{5640500019200} w_1{}^{10} + \frac{1148557771614847444329661}{344268800} w_1{}^2 w_2{}^2)x^{21} + (\frac{8482837584849285192937722002683}{45124000153600} w_1{}^{11} + \frac{3180784879948620146946374537 27}{352531251200} w_1{}^7 w_2 + \frac{3729070673587218520018795 61}{1377075200} w_1{}^3 w_2{}^2)x^{23} + (\frac{1911111042629407209819476 43}{1764377600} w_2{}^3 + \frac{1235004756563467366760858564031861}{28907562598400} w_1{}^8 w_2 + \frac{8712715845744014042459952643849}{451680665600} w_1{}^4 w_2{}^2 + \frac{1130925956984653479797546024674 21419}{148006720503808 00} w_1{}^{12})x^{25} + (\frac{4968888718802050068996645867 1}{317733228541} w_3 + \frac{5897001168908402131450635852159076738550284700789 9}{1881066126057613516991365120 00} w_1{}^{13} + \frac{2363314058945177454537438705113994194553017}{896962225941473730560 00} w_1 w_2{}^3 + \frac{2950125352957109466079811294656859480752154588969}{1469582910982510560149504000} w_1{}^9 w_2 + \frac{4557660698102619695549876934842193}{36134453248000} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[14]_W(x) = (14\,x + \frac{455}{4} w_1 x^3 + \frac{22295}{8} w_1{}^2 x^5 + \frac{5818995}{64} w_1{}^3 x^7 + (\frac{16797599}{16} w_2 + \frac{1717601613}{512} w_1{}^4)x^9 + (\frac{134468979463}{1312} w_1 w_2 + \frac{2797992611323}{20992} w_1{}^5)x^{11} + (\frac{38336227953205}{5248} w_1{}^2 w_2 + \frac{1868513087811825}{335872} w_1{}^6)x^{13} + (\frac{3884654823405692 7}{83968} w_1{}^3 w_2 + \frac{646119735035116069}{2686976} w_1{}^7)x^{15} + (\frac{71670330778655317163}{6717440} w_1{}^8 + \frac{1158741766786804027 1}{419840} w_1{}^4 w_2 + \frac{290504446538397}{410} w_2{}^2)x^{17} + (\frac{10644272497200999717657 87}{2203320320} w_1{}^9 + \frac{1094823666171304354828 27}{68853760} w_1{}^5 w_2 + \frac{1157739495182064206867}{8606720} w_1 w_2{}^2)x^{19} + (\frac{19741254863930820900953014 13}{2203320320} w_1{}^6 w_2 + \frac{4898484294187952468774764 9}{2203320320} w_1{}^{10} + \frac{1090255369176054102603127}{68853760} w_1{}^2 w_2{}^2)x^{21} + (\frac{3654974867293320411607394418 7}{35253125120} w_1{}^{11} + \frac{5479339785584337663525123407}{1101660160} w_1{}^7 w_2 + \frac{1026747851698749417245336 51}{68853760} w_1{}^3 w_2{}^2)x^{23} + (\frac{4644502230672605089023 69}{672400} w_2{}^3 + \frac{1203913404114636688799720144177 7}{44066406400} w_1{}^8 w_2 + \frac{3394162020178367245096329419 47}{2754150400} w_1{}^4 w_2{}^2 + \frac{2757411231242486632604934509499 77}{5640500019200} w_1{}^{12})x^{25} + (\frac{1469960662991046855074164069715}{1270932914164} w_3 +$$

$$\frac{5470795224556033387174864391895027859571753084 5}{2351332657572016896239206 4} w_1{}^{13} + \frac{6995584372970961677260129014576759619381 09}{3587848903765894922240} w_1 w_2{}^3 + \frac{6839211586639048246346545305763781256004825127}{4592446596820345500467 20} w_1{}^9 w_2 + \frac{1689089963534084295756448818793943}{180672266240} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[15]_W(x) = (15\,x + 140\, w_1 x^3 + \frac{7875}{2} w_1{}^2 x^5 + \frac{2359875}{16} w_1{}^3 x^7 + (\frac{80090332}{41} w_2 + \frac{32791319771}{5248} w_1{}^4)x^9 + (\frac{71841027825}{328} w_1 w_2 + \frac{11967448898475}{41984} w_1{}^5)x^{11} + (\frac{23519687309475}{1312} w_1{}^2 w_2 + \frac{4588113512912475}{335872} w_1{}^6)x^{13} + (\frac{27366555854767675}{20992} w_1{}^3 w_2 + \frac{1821647813687319275}{2686976} w_1{}^7)x^{15} + (\frac{3043955506034613732187 5}{881328128} w_1{}^8 + \frac{3843019782386997187 5}{430336} w_1{}^4 w_2 + \frac{307894141555390625}{13448} w_2{}^2)x^{17} + (\frac{1266032393079568561176355 5}{7050625024} w_1{}^9 + \frac{3254053834374771381312 45}{55083008} w_1{}^5 w_2 + \frac{2148280057313032543 95}{430336} w_1 w_2{}^2)x^{19} + (\frac{8421514879620365479139760 5}{220332032} w_1{}^6 w_2 + \frac{5351733058420737791475351315}{56405000192} w_1{}^{10} + \frac{2323285171773900308572 85}{3442688} w_1{}^2 w_2{}^2)x^{21} + (\frac{2292456462575402027097516211875}{451240001536} w_1{}^{11} + \frac{8588478385955407369978709437 5}{352531251 2} w_1{}^7 w_2 + \frac{1005005411387215200697106 25}{13770752} w_1{}^3 w_2{}^2)x^{23} + (\frac{6838858076147002544723437 5}{17643776} w_2{}^3 + \frac{4441790106502431418074612430106 25}{289075625984} w_1{}^8 w_2 + \frac{3128288051031422108163470180625}{4516806656} w_1{}^4 w_2{}^2 + \frac{4070859641125402351493101384051687 5}{148006720503808} w_1{}^{12})x^{25} + (\frac{2367297027566470205783843994140}{3177332285 41} w_3 + \frac{1379181448797337045622303508613858915601111808471}{9175932322232261058494464} w_1{}^{13} + \frac{5498239969843069643876720919125008098349}{437542549239743283 2} w_1 w_2{}^3 + \frac{6894151979166575638555426643942448832443841949}{7168697126743953951948 8} w_1{}^9 w_2 + \frac{1063421566259708495409518773717 81}{1762656256} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[16]_W(x) =$$
$$(16\,x + 170\, w_1 x^3 + 5440\, w_1{}^2 x^5 + 231880\, w_1{}^3 x^7 + (\frac{286331153}{82} w_2 + \frac{7333145109}{656} w_1{}^4)x^9 + (\frac{18271506704}{41} w_1 w_2 + \frac{23790864 74}{41} w_1{}^5)x^{11} + (\frac{1701961321620}{41} w_1{}^2 w_2 + \frac{2595085114945}{82} w_1{}^6)x^{13} + (\frac{563421187376841}{164} w_1{}^3 w_2 + \frac{2344987032740013}{1312} w_1{}^7)x^{15} + (\frac{87090974110390290 6}{8405} w_1{}^8 + \frac{2250978846455180432}{8405} w_1{}^4 w_2 + \frac{57646075216920576}{8405} w_2{}^2)x^{17} + (\frac{6595208880231861520509}{1075840} w_1{}^9 + \frac{1355640259150523318953}{67240} w_1{}^5 w_2 + \frac{28613269948336852901}{16810} w_1 w_2{}^2)x^{19} + (\frac{7985055211771221222913813}{537920} w_1{}^6 w_2 + \frac{3172540467291837029769009}{8606720} w_1{}^{10} + \frac{3521874155589648379924 1}{134480} w_1{}^2 w_2{}^2)x^{21} + (\frac{3020458772361099508047333}{134480} w_1{}^{11} + \frac{9049822031183098704224 01}{8405} w_1{}^7 w_2 + \frac{2709161461493800740207 88}{8405} w_1{}^3 w_2{}^2)x^{23} + (\frac{3352754272043755662370406 4}{1723025} w_2{}^3 + \frac{1065237818917400611308228305 61}{13784200} w_1{}^8 w_2 + \frac{1199627573588967001329093010 9}{3446050} w_1{}^4 w_2{}^2 + \frac{3051806826809984726489218073 17}{220547200} w_1{}^{12})x^{25} + (\frac{1352160640243444694929816752 4010}{317733228541} w_3 + \frac{3087345773021489167745202507852864938453423 63}{3587848903765894922240} w_1{}^{13} + \frac{5031668974664118067816123950147326147 5931}{7007517390167763520} w_1 w_2{}^3 + \frac{2468522035682884147488548335812525094215682 81}{4484811297073686528 0} w_1{}^9 w_2 + \frac{6088838310807613753114444267679 3}{176437760} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[17]_W(x) = (17\,x + 204\, w_1 x^3 + \frac{14739}{2} w_1{}^2 x^5 + \frac{5674515}{16} w_1{}^3 x^7 + (\frac{247058076}{41} w_2 + \frac{101307434603}{5248} w_1{}^4)x^9 + (\frac{1424289808293}{1640} w_1 w_2 + \frac{237518777587879}{209920} w_1{}^5)x^{11} + (\frac{599225157572223}{6560} w_1{}^2 w_2 + \frac{116997152991757783}{1679360} w_1{}^6)x^{13} + (\frac{895925953114541367}{104960} w_1{}^3 w_2 + \frac{59683041342644513191}{13434880} w_1{}^7)x^{15} + (\frac{1281358293470601295357359}{4406640640} w_1{}^8 + \frac{1616595574535334242727}{2151680} w_1{}^4 w_2 + \frac{1292562909012107637}{67240} w_2{}^2)x^{17} + (\frac{3423679412314325006736001851}{176265625600} w_1{}^9 + \frac{8794100873606594613223854 9}{1377075200} w_1{}^5 w_2 + \frac{5796139320520580637441 9}{10758400} w_1 w_2{}^2)x^{19} + (\frac{2924283752372453421480703137 3}{5508300800} w_1{}^6 w_2 + \frac{1859468627001468045441041746219}{1410125004800} w_1{}^{10} + \frac{8055950033569319757729541}{86067200} w_1{}^2 w_2{}^2)x^{21} + (\frac{1023391381392453737302975067459643}{11281000038400} w_1{}^{11} + \frac{3831815525610576204432187829276 7}{88132812800} w_1{}^7 w_2 + \frac{4478300045493779109172285268 1}{344268800} w_1{}^3 w_2{}^2)x^{23} + (\frac{3907195643045111795553178979 1}{441094400} w_2{}^3 + \frac{2546261738106040027814956472920476 57}{7226890649600} w_1{}^8 w_2 + \frac{1791266567405240036741367161871513}{112920166400} w_1{}^4 w_2{}^2 + \frac{2334925944914587754785910379618334 8003}{3700168012595200} w_1{}^{12})x^{25} + (\frac{6948797175702867864639732197 5644}{317733228541} w_3 + \frac{2083572567555001540420518581313339046540495165741 0499}{4702665315144033792478412 8000} w_1{}^{13} + \frac{8277198137524286455117018871459946298513856 17}{2242405564853684326 4000} w_1 w_2{}^3 + \frac{1040961373484453036359569962712308738945788248552769}{3673957277456276400373760 00} w_1{}^9 w_2 + \frac{1604010884177898145269274270494485 3193}{9033613312000} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[18]_W(x) = (18\,x + \frac{969}{4} w_1 x^3 + \frac{78489}{8} w_1{}^2 x^5 + \frac{33881085}{64} w_1{}^3 x^7 + (\frac{6611976345}{656} w_2 + \frac{678211867835}{20992} w_1{}^4)x^9 + (\frac{10686606768333}{6560} w_1 w_2 + \frac{222857892090153}{104960} w_1{}^5)x^{11} + (\frac{5041516253868423}{26240} w_1{}^2 w_2 + \frac{246168036510400827}{1679360} w_1{}^6)x^{13} + (\frac{8451971908088153877}{419840} w_1{}^3 w_2 + \frac{1408003878460031181 99}{13434880} w_1{}^7)x^{15} + (\frac{2118362026683151253321 73}{275415040} w_1{}^8 +$$

$$\frac{34199973272255379993513}{17213440} w_1{}^4 w_2 + \frac{170774340589088847}{3362} w_2{}^2)x^{17} + (\frac{6346283268537450616283838089}{11016601600} w_1{}^9 +$$
$$\frac{651884931846327357599709 69}{344268800} w_1{}^5 w_2 + \frac{68701378725699881113044 9}{43033600} w_1 w_2{}^2)x^{19} +$$
$$(\frac{19444288700810982664982971 4679}{11016601600} w_1{}^6 w_2 + \frac{48308333044095447291088612527}{11016601600} w_1{}^{10} +$$
$$\frac{107074448958804882744710006 1}{344268800} w_1{}^2 w_2{}^2)x^{21} + (\frac{5962135056004694499702068894 4873}{176265625600} w_1{}^{11} +$$
$$\frac{892748019409287261211399646877 3}{5508300800} w_1{}^7 w_2 + \frac{16685958007044615362754639204 9}{344268800} w_1{}^3 w_2{}^2)x^{23} +$$
$$(\frac{203875370901757772386467075 79}{5513680} w_2{}^3 + \frac{532130489269811395942659483075847 47}{361344532480} w_1{}^8 w_2 +$$
$$\frac{149674820295236693204104309381 3497}{22584033280} w_1{}^4 w_2{}^2 + \frac{122016916003286080431377218900269 1107}{46252100157440} w_1{}^{12})x^{25} +$$
$$(\frac{130078759739092765077142531945 2669}{1270932914164} w_3 + \frac{610411182956244365739175543207349844081117365660007 1}{2939165821965021120299008000} w_1{}^{13} +$$
$$\frac{154987745570486136229482421306653836955935 93627}{8969622259414737305 6000} w_1 w_2{}^3 +$$
$$\frac{152450858267666593520489493449028646794981778653713}{1148111649205086375116 8000} w_1{}^9 w_2 + \frac{375708505186253284786600884999010628 01}{4516806656000} w_1{}^5 w_2{}^2)x^{27} +$$
$$O(x^{29}))$$

$$[19]_W(x) = (19\,x + 285\,w_1 x^3 + \frac{102885}{8} w_1{}^2 x^5 + \frac{49487685}{64} w_1{}^3 x^7 + (\frac{672266037}{41} w_2 + \frac{1103845530629}{20992} w_1{}^4)x^9 +$$
$$(\frac{3874941437439}{1312} w_1 w_2 + \frac{646687428310277}{167936} w_1{}^5)x^{11} + (\frac{2037128780593725}{5248} w_1{}^2 w_2 + \frac{397989698013560285}{1343488} w_1{}^6)x^{13} +$$
$$(\frac{3805701910599390141}{83968} w_1{}^3 w_2 + \frac{25365766041010572353 3}{10747904} w_1{}^7)x^{15} + (\frac{3402031895065583480318984 1}{17626562560} w_1{}^8 +$$
$$\frac{107249816042286928454 31}{2151680} w_1{}^4 w_2 + \frac{34252417859138215551}{268960} w_2{}^2)x^{17} + (\frac{22713904761555991117634575409}{141012500480} w_1{}^9 +$$
$$\frac{583166948134693346380799391}{1101660160} w_1{}^5 w_2 + \frac{38391632267043683734521}{8606720} w_1 w_2{}^2)x^{19} +$$
$$(\frac{24228889891531280592232618 9383}{4406640640} w_1{}^6 w_2 + \frac{15413050063013685156414796536329}{1128100003840} w_1{}^{10} +$$
$$\frac{666806432850389411481893391}{68853760} w_1{}^2 w_2{}^2)x^{21} + (\frac{10598455693628703391613488525731801}{9024800030720} w_1{}^{11} +$$
$$\frac{396669388174107158584082753612709}{70506250240} w_1{}^7 w_2 + \frac{46318702734555621696316671950 7}{275415040} w_1{}^3 w_2{}^2)x^{23} +$$
$$(\frac{252082175802950539040598759 8493}{1764377600} w_2{}^3 + \frac{16466660382716143706121239275918522 11}{28907562598400} w_1{}^8 w_2 +$$
$$\frac{115749278822978504206204852242661599}{451680665600} w_1{}^4 w_2{}^2 + \frac{151058477254212698965812885973181240586 9}{14800672050380800} w_1{}^{12})x^{25} +$$
$$(\frac{140002562264418534677983622130 2505}{317733228541} w_3 + \frac{673661623275783653869752109921937348978169723513059 57}{752426450423045406796546048 0} w_1{}^{13} +$$
$$\frac{266959973777876583190592298795092016205822330 3}{3587848903765894922240} w_1 w_2{}^3 +$$
$$\frac{672874765061695672754899562513854749862576028848043}{1175666328786008448119603 2} w_1{}^9 w_2 + \frac{518036423093623894447140970349759943 51}{1445378129920} w_1{}^5 w_2{}^2)x^{27} +$$
$$O(x^{29}))$$

$$[20]_W(x) =$$
$$(20\,x + \frac{665}{2} w_1 x^3 + 16625\,w_1{}^2 x^5 + \frac{8861125}{8} w_1{}^3 x^7 + (\frac{8533333333}{328} w_2 + \frac{54755498441}{656} w_1{}^4)x^9 + (\frac{8517333333325}{164} w_1 w_2 +$$
$$\frac{8886728440975}{1312} w_1{}^5)x^{11} + (\frac{496214399997225}{656} w_1{}^2 w_2 + \frac{6060488024798725}{10496} w_1{}^6)x^{13} + (\frac{1027276324262525925}{10496} w_1{}^3 w_2 +$$
$$\frac{107007003519937622 5}{20992} w_1{}^7)x^{15} + (\frac{39758606541574517843 75}{860672} w_1{}^8 + \frac{12832347518340413656 25}{107584} w_1{}^4 w_2 +$$
$$\frac{511999999980000000}{1681} w_2{}^2)x^{17} + (\frac{58830586472936492763466 05}{13770752} w_1{}^9 + \frac{12081395749672214676039 35}{860672} w_1{}^5 w_2 +$$
$$\frac{254398008882639644444 45}{215168} w_1 w_2{}^2)x^{19} + (\frac{22249019358948103615670500 85}{13770752} w_1{}^6 w_2 + \frac{11059325105020658691178740 85}{27541504} w_1{}^{10} +$$
$$\frac{489664384560281590044451 85}{1721344} w_1{}^2 w_2{}^2)x^{21} + (\frac{10533709007275724877633608 3125}{27541504} w_1{}^{11} +$$
$$\frac{157673342543573874151081 0175}{860672} w_1{}^7 w_2 + \frac{23558462133723151615022 48125}{430336} w_1{}^3 w_2{}^2)x^{23} +$$
$$(\frac{35498666664853333333500000}{68921} w_2{}^3 + \frac{11605039661253414409016695674 76875}{564600832} w_1{}^8 w_2 +$$
$$\frac{130480208969429310691761702475625}{141150208} w_1{}^4 w_2{}^2 + \frac{66547619149864268925273070202708125}{18067226624} w_1{}^{12})x^{25} +$$
$$(\frac{11184810666666666666666666666666 6665}{635466457082} w_3 + \frac{41108152269185586254973993351381322248827866814 5}{1148111649205086375116 8} w_1{}^{13} +$$
$$\frac{266645036170114205229669001579742203824848659}{8969622259414737305 6} w_1 w_2{}^3 + \frac{131373085029789979957512113763497386827929994037 7}{5740558246025431875584} w_1{}^9 w_2 +$$
$$\frac{323562782703849625517860597190993071}{2258403328} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[21]_W(x) = (21\,x + 385\,w_1 x^3 + \frac{169785}{8} w_1{}^2 x^5 + \frac{99776985}{64} w_1{}^3 x^7 + (\frac{1654750097}{41} w_2 + \frac{2719179496649}{20992} w_1{}^4)x^9 +$$
$$(\frac{11656059683499}{1312} w_1 w_2 + \frac{1946350168234857}{167936} w_1{}^5)x^{11} + (\frac{7487681308590945}{5248} w_1{}^2 w_2 + \frac{1463510343787350705}{1343488} w_1{}^6)x^{13} +$$

$$(\frac{17091724779121747601}{83968} w_1{}^3 w_2 + \frac{113964520699072081313}{10747904} w_1{}^7)x^{15} + (\frac{18674886679409205560557 0341}{17626562560} w_1{}^8 +$$
$$\frac{11770405178821257657773 7}{4303360} w_1{}^4 w_2 + \frac{187762140589296324051}{268960} w_2{}^2)x^{17} + (\frac{15233841021135116280100917462 9}{1410125004 80} w_1{}^9 +$$
$$\frac{390991201780166819675784171}{1101660160} w_1{}^5 w_2 + \frac{25718406270570264311147 01}{8606720} w_1 w_2{}^2)x^{19} +$$
$$(\frac{19847878270495746760516808133 63}{4406640640} w_1{}^6 w_2 + \frac{12630027911052094135336575709 5469}{1128100003840} w_1{}^{10} +$$
$$\frac{545841649918276033678743025 1}{68853760} w_1{}^2 w_2{}^2)x^{21} + (\frac{10611003731275270044260228161 3102461}{9024800030720} w_1{}^{11} +$$
$$\frac{397021437174839588611531810099449}{70506250240} w_1{}^7 w_2 + \frac{46330228553076451934243857 44927}{275415040} w_1{}^3 w_2{}^2)x^{23} +$$
$$(\frac{30774037826009796760867042330713}{1764377600} w_2{}^3 + \frac{20136976338642994089121964339116593 8151}{28907562598400} w_1{}^8 w_2 +$$
$$\frac{141467398609567723735342997597406 4059}{451680665600} w_1{}^4 w_2{}^2 + \frac{18478094245364817406736977609921736970129}{14800672050380800} w_1{}^{12})x^{25} +$$
$$(\frac{208790010488300584013607757 15314205}{317733228541} w_3 + \frac{10068206365333884835336393924309712344929056397 41209481}{752426450423045406796546048 0} w_1{}^{13} +$$
$$\frac{796539708668182029849501624646057258674915 8903}{7175697807531789844 48} w_1 w_2{}^3 +$$
$$\frac{502684554314146559748765628962345527757253156662901539}{5878331643930042240598016 0} w_1{}^9 w_2 +$$
$$\frac{773608344072711877970364371874987483739}{1445378129920} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[22]_W(x) = (22\,x + \frac{1771}{4} w_1 x^3 + \frac{214291}{8} w_1{}^2 x^5 + \frac{138217695}{64} w_1{}^3 x^7 + (\frac{40242307259}{656} w_2 + \frac{4134318676873}{20992} w_1{}^4)x^9 +$$
$$(\frac{97235474915887}{6560} w_1 w_2 + \frac{2030019130498667}{104960} w_1{}^5)x^{11} + (\frac{68560114637851837}{26240} w_1{}^2 w_2 + \frac{33507203119858521 13}{1679360} w_1{}^6)x^{13} +$$
$$(\frac{17177235388892735610 3}{419840} w_1{}^3 w_2 + \frac{28638179701242185530 61}{13434880} w_1{}^7)x^{15} + (\frac{12876776490504061702800 339}{55083008} w_1{}^8 +$$
$$\frac{10386922849485855879963}{17213440} w_1{}^4 w_2 + \frac{25878887858692251537}{16810} w_2{}^2)x^{17} + (\frac{28822529340557456560869439011}{11016601600} w_1{}^9 +$$
$$\frac{29586400017355273624623863 31}{344268800} w_1{}^5 w_2 + \frac{31127356351204335184937051}{43033600} w_1 w_2{}^2)x^{19} +$$
$$(\frac{13187609746017797064297886306821}{11016601600} w_1{}^6 w_2 + \frac{81961616315442598951260072728 7}{2754150400} w_1{}^{10} +$$
$$\frac{72514180411634975813383315039}{344268800} w_1{}^2 w_2{}^2)x^{21} + (\frac{60462512680340471856093426985782 67}{176265625600} w_1{}^{11} +$$
$$\frac{90479904423698207563137970423376 7}{5508300800} w_1{}^7 w_2 + \frac{16889293978797586065636033365171}{344268800} w_1{}^3 w_2{}^2)x^{23} +$$
$$(\frac{15384704588261223572085756763 89}{27568400} w_2{}^3 + \frac{40295642185664141656201683272969364037}{1806722662400} w_1{}^8 w_2 +$$
$$\frac{11320867826688766860338720020973148 07}{112920166400} w_1{}^4 w_2{}^2 + \frac{92450749872499367032436721313166958143 7}{23126050078720 0} w_1{}^{12})x^{25} +$$
$$(\frac{29326560574605292767086587455960951 1}{1270932914164} w_3 + \frac{13822256189431066510941269701011797688542464188009096 69}{2939165821965021120299008000} w_1{}^{13} +$$
$$\frac{34968098393905364445664691972203318574389474733 53}{8969622259414737305 6000} w_1 w_2{}^3 +$$
$$\frac{34502032820749433444257932381876479607881811367365807}{1148111649205086375116 8000} w_1{}^9 w_2 +$$
$$\frac{84937194447122763262491248874563058023 39}{4516806656000} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[23]_W(x) = (23\,x + 506\,w_1 x^3 + \frac{133837}{4} w_1{}^2 x^5 + \frac{94355085}{32} w_1{}^3 x^7 + (\frac{3752401378}{41} w_2 + \frac{3084882524933}{10496} w_1{}^4)x^9 +$$
$$(\frac{79288241117899}{3280} w_1 w_2 + \frac{13245185447841897}{419840} w_1{}^5)x^{11} + (\frac{61108925875791409}{13120} w_1{}^2 w_2 + \frac{1194811756576906928 9}{3358720} w_1{}^6)x^{13} +$$
$$(\frac{16735105803067728308 1}{209920} w_1{}^3 w_2 + \frac{11161953794903957257113}{26869760} w_1{}^7)x^{15} + (\frac{43885951781852236542962083 3}{8813281280} w_1{}^8 +$$
$$\frac{11061215458948758280466 3}{860672} w_1{}^4 w_2 + \frac{44078137362144317582 7}{134480} w_2{}^2)x^{17} + (\frac{21474054811213538280868269800373}{352531251200} w_1{}^9 +$$
$$\frac{55101564123703073015124754427}{2754150400} w_1{}^5 w_2 + \frac{36221454256054961154403037}{21516800} w_1 w_2{}^2)x^{19} +$$
$$(\frac{33557103596286266502124234779779}{11016601600} w_1{}^6 w_2 + \frac{21358762904391335634345136831528437}{2820250009600} w_1{}^{10} +$$
$$\frac{92236254865734628156611570643}{172134400} w_1{}^2 w_2{}^2)x^{21} + (\frac{21527591263971931437971747737616 6309}{22562000076800} w_1{}^{11} +$$
$$\frac{80529765499093576182094993116880321}{176265625600} w_1{}^7 w_2 + \frac{93928826524246663304209892681303}{688537600} w_1{}^3 w_2{}^2)x^{23} +$$
$$(\frac{14957810253391275040389114110924 1}{882188800} w_2{}^3 + \frac{98002668086223275704593481631402619 2207}{1445378129920 0} w_1{}^8 w_2 +$$
$$\frac{68819563862034413522307880711464346 93}{225840332800} w_1{}^4 w_2{}^2 + \frac{89948333411436756977249847201439124 35853}{740033602519040 0} w_1{}^{12})x^{25} +$$
$$(\frac{24346712689772664798358111519691582 6}{317733228541} w_3 + \frac{14699262312287058336201636060700862112525261307450506957}{9405330630288067584956825600 0} w_1{}^{13} +$$
$$\frac{58067923191231223175903902987019587658161673892831}{4484811129707368652800 0} w_1 w_2{}^3 +$$
$$\frac{73375265127685621138580370804062665548549242736783347 67}{7347914554912552800747520 00} w_1{}^9 w_2 +$$
$$\frac{11287619610216616703323247583241377226599}{18067226624000} w_1{}^5 w_2{}^2)x^{27} + O(x^{29}))$$

$$[24]_W(x) = (24\,x + 575\,{w_1}{x^3} + 41400\,{w_1}^2{x^5} + 3972675\,{w_1}^3{x^7} + (\tfrac{22015062835}{164}\,w_2 + \tfrac{565722022755}{1312}\,{w_1}^4){x^9} + (\tfrac{1583020611990}{41}\,{w_1}{w_2} + \tfrac{8265315897135}{164}\,{w_1}^5){x^{11}} + (\tfrac{664283193959175}{82}\,{w_1}^2{w_2} + \tfrac{4059363766226925}{656}\,{w_1}^6){x^{13}} + (\tfrac{1980942035095419955}{1312}\,{w_1}^3{w_2} + \tfrac{8258779321005513315}{10496}\,{w_1}^7){x^{15}} + (\tfrac{2762348141736919700307}{26896}\,{w_1}^8 + \tfrac{89108319014533890063}{3362}\,{w_1}^4{w_2} + \tfrac{1135928886640784 1792}{1681}\,{w_2}^2){x^{17}} + (\tfrac{2354909304049682278321779}{1721344}\,{w_1}^9 + \tfrac{48335923025112340115525 43}{107584}\,{w_1}^5{w_2} + \tfrac{10165048963620445605 5931}{26896}\,{w_1}{w_2}^2){x^{19}} + (\tfrac{641077308879062897806 1398813}{860672}\,{w_1}^6{w_2} + \tfrac{25504892775140124715971005859}{13770752}\,{w_1}^{10} + \tfrac{2818716153044978837725015 91}{215168}\,{w_1}^2{w_2}^2){x^{21}} + (\tfrac{2186855928375725994002228441 07}{860672}\,{w_1}^{11} + \tfrac{6543825478160947343639814 8979}{53792}\,{w_1}^7{w_2} + \tfrac{4883926266389422626878911563}{13448}\,{w_1}^3{w_2}^2){x^{23}} + (\tfrac{1693219247934346859999260999 68}{344605}\,{w_2}^3 + \tfrac{1734331417600469097984209703405 6399}{88218880}\,{w_1}^8{w_2} + \tfrac{1948270230309890517650442068635131}{22054720}\,{w_1}^4{w_2}^2 + \tfrac{4974797501119517834707469310006 7803}{1411502080}\,{w_1}^{12}){x^{25}} + (\tfrac{7682318074657636556826709283580 14975}{317733228541}\,{w_3} + \tfrac{2832793260228536044292098290490600326710052 6721049}{5740558246025431875584}\,{w_1}^{13} + \tfrac{4581171950766373769804927946123918347928014229}{112120278242684216 32}\,{w_1}{w_2}^3 + \tfrac{2262312034962887548154089656428823992033559633768 7}{717569780753178984448}\,{w_1}^9{w_2} + \tfrac{5567426293127623602503597271458864655}{282300416}\,{w_1}^5{w_2}^2){x^{27}} + O(x^{29}))$$

$$[25]_W(x) = (25\,x + 650\,{w_1}{x^3} + \tfrac{203125}{4}\,{w_1}^2{x^5} + \tfrac{169203125}{32}\,{w_1}^3{x^7} + (\tfrac{7947285970}{41}\,w_2 + \tfrac{6536474194445}{10496}\,{w_1}^4){x^9} + (\tfrac{39688746134375}{656}\,{w_1}{w_2} + \tfrac{6632162934028125}{83968}\,{w_1}^5){x^{11}} + (\tfrac{3614528179165 3125}{2624}\,{w_1}^2{w_2} + \tfrac{7069018230729528125}{671744}\,{w_1}^6){x^{13}} + (\tfrac{1169640101270 6428125}{41984}\,{w_1}^3{w_2} + \tfrac{7803015803212122878125}{5373952}\,{w_1}^7){x^{15}} + (\tfrac{3625021166461511640332031 25}{1762656256}\,{w_1}^8 + \tfrac{4567394723186068261718 75}{860672}\,{w_1}^4{w_2} + \tfrac{3637978807067871093 75}{26896}\,{w_2}^2){x^{17}} + (\tfrac{4191716524328159498580764 13125}{14101250048}\,{w_1}^9 + \tfrac{1075372447821124713372793687 5}{110166016}\,{w_1}^5{w_2} + \tfrac{706560159513091935051 8125}{860672}\,{w_1}{w_2}^2){x^{19}} + (\tfrac{7738328483165436849827240981875}{440664064}\,{w_1}^6{w_2} + \tfrac{4926254153385298737077935 33633125}{112810000384}\,{w_1}^{10} + \tfrac{2126097646794326103740269187 5}{6885376}\,{w_1}^2{w_2}^2){x^{21}} + (\tfrac{5866769987554919046249323304707 03125}{902480003072}\,{w_1}^{11} + \tfrac{2194248488809894546180549005 6640625}{7050625024}\,{w_1}^7{w_2} + \tfrac{2558398471909751556428380273 4375}{27541504}\,{w_1}^3{w_2}^2){x^{23}} + (\tfrac{4810966440001114582022094726 5625}{35287552}\,{w_2}^3 + \tfrac{3155246098636567476146794958034433 59375}{578151251968}\,{w_1}^8{w_2} + \tfrac{2214942785516686555491541244083984375}{9033613312}\,{w_1}^4{w_2}^2 + \tfrac{2896409149492751147409914017644092382 8125}{296013441007616}\,{w_1}^{12}){x^{25}} + (\tfrac{2312964634635742792549232641855875650}{317733228541}\,{w_3} + \tfrac{1118549034186500106371018412089243657935092741551841 9385}{752426450423045406796546048}\,{w_1}^{13} + \tfrac{4414138219520745139748252922348623280935 79281475}{3587848903765894922 24}\,{w_1}{w_2}^3 + \tfrac{5582650839371785796135996158361143869705946820285957 95}{5878331643930042240598016}\,{w_1}^9{w_2} + \tfrac{8585391019141380855375463520234906008875}{144537812992}\,{w_1}^5{w_2}^2){x^{27}} + O(x^{29}))$$

$$[26]_W(x) = (26\,x + \tfrac{2925}{4}\,{w_1}{x^3} + \tfrac{494325}{8}\,{w_1}^2{x^5} + \tfrac{445386825}{64}\,{w_1}^3{x^7} + (\tfrac{180983455965}{656}\,w_2 + \tfrac{18610361341455}{20992}\,{w_1}^4){x^9} + (\tfrac{122209078640805}{1312}\,{w_1}{w_2} + \tfrac{2553047409232905}{20992}\,{w_1}^5){x^{11}} + (\tfrac{120387389664844575}{5248}\,{w_1}^2{w_2} + \tfrac{5886746248653914475}{335872}\,{w_1}^6){x^{13}} + (\tfrac{4213763183962461 9245}{83968}\,{w_1}^3{w_2} + \tfrac{7028478191393819331015}{2686976}\,{w_1}^7){x^{15}} + (\tfrac{2207354188568884 2055731861}{55083008}\,{w_1}^8 + \tfrac{3559613641016492350870137}{3442688}\,{w_1}^4{w_2} + \tfrac{8858025901404072 0459}{3362}\,{w_2}^2){x^{17}} + (\tfrac{2760807058746644315402153 9949}{440664064}\,{w_1}^9 + \tfrac{2832882783959978953568953029}{13770752}\,{w_1}^5{w_2} + \tfrac{2977493520598851377 6045109}{1721344}\,{w_1}{w_2}^2){x^{19}} + (\tfrac{1763971456495537228459817430233 1}{440664064}\,{w_1}^6{w_2} + \tfrac{2193429479001833813913939104169}{220332032}\,{w_1}^{10} + \tfrac{9691305830897223136698674724 9}{13770752}\,{w_1}^2{w_2}^2){x^{21}} + (\tfrac{1130182609953345008619225365448 2469}{7050625024}\,{w_1}^{11} + \tfrac{1690692000566565557088116001302409}{220332032}\,{w_1}^7{w_2} + \tfrac{3153554344179574095502998930 5037}{13770752}\,{w_1}^3{w_2}^2){x^{23}} + (\tfrac{2003945175836135150414590690026 3}{5513680}\,{w_2}^3 + \tfrac{5259275271719836911996647362587835 95879}{361344532480}\,{w_1}^8{w_2} + \tfrac{1476573277775897973162279609745077 5469}{22584033280}\,{w_1}^4{w_2}^2 + \tfrac{1207041439829582277865134689667052 7439279}{46252100157440}\,{w_1}^{12}){x^{25}} + (\tfrac{2667651818089768168011892191640088 3025}{1270932914164}\,{w_3} + \tfrac{2459496211432381274093380179726655811776236749632 0999}{5734957701395163161559 04}\,{w_1}^{13} + \tfrac{6209119919530405536164313805113047613677052 3651}{175017019695897313 28}\,{w_1}{w_2}^3 + \tfrac{6137239133921768911477732111207580890954872772700 61}{2240217852107485609984}\,{w_1}^9{w_2} + \tfrac{3682760485582485746555137486804086345}{21495808}\,{w_1}^5{w_2}^2){x^{27}} + O(x^{29}))$$

$$[27]_W(x) = (27\,x + 819\,{w_1}{x^3} + \tfrac{597051}{8}\,{w_1}^2{x^5} + \tfrac{580134555}{64}\,{w_1}^3{x^7} + (387479547\,w_2 + \tfrac{637612816659}{512}\,{w_1}^4){x^9} + (\tfrac{925556894739477}{6560}\,{w_1}{w_2} + \tfrac{154703386579955031}{839680}\,{w_1}^5){x^{11}} + (\tfrac{983298077762735007}{26240}\,{w_1}^2{w_2} + \tfrac{19234513750549685 9247}{6717440}\,{w_1}^6){x^{13}} + (\tfrac{3711714659105177970063}{419840}\,{w_1}^3{w_2} + \tfrac{2476636191995038344351 99}{53739520}\,{w_1}^7){x^{15}} + (\tfrac{3273438015122380787350 96839}{429916160}\,{w_1}^8 + \tfrac{4123746034125334048095 3}{20992}\,{w_1}^4{w_2} + \tfrac{3283070065652333562321}{6560}\,{w_2}^2){x^{17}} + (\tfrac{9051427906154771455532419760203 79}{705062502400}\,{w_1}^9 + \tfrac{2321768794346960079243467184021}{5508300800}\,{w_1}^5{w_2} + \tfrac{1524905063102561718307872051}{43033600}\,{w_1}{w_2}^2){x^{19}} + (\tfrac{1948896713137994434108446230122317}{22033203200}\,{w_1}^6{w_2} + \tfrac{1240851464295708670337334408474443251}{5640500019200}\,{w_1}^{10} + \tfrac{5352818196118165943796960377589}{344268800}\,{w_1}^2{w_2}^2){x^{21}} + (\tfrac{1723772156561701536021475060038718703 07}{45124000153600}\,{w_1}^{11} + \tfrac{6446266491110455475982828503573838183}{352531251200}\,{w_1}^7{w_2} + \tfrac{7513889693131655042156572666410369}{1377075200}\,{w_1}^3{w_2}^2){x^{23}} + (\tfrac{4018022479795242592064856666890643}{43033600}\,{w_2}^3 + \tfrac{2637254562168568739442201266878015072461}{705062502400}\,{w_1}^8{w_2} + \tfrac{1850834409290781986478781461064982 9049}{11016601600}\,{w_1}^4{w_2}^2 + \tfrac{2421222426918539918545763885711177673494 19}{36099200122880 0}\,{w_1}^{12}){x^{25}} + (\tfrac{581497370030629364828451 39}{592026882015232000}\,{w_3} + \tfrac{7037183521742919062751577299348750630792307 7071}{2774828916887135314413020676727375695093}\,{w_1}^{13} + \tfrac{3511804425008213398487666281030587383564094501}{282300416000}\,{w_1}{w_2}^3 + \tfrac{1715568194164188260140200435935566276678757 7}{4625210015744000}\,{w_1}^9{w_2} + \tfrac{3613445300 }{36134453248000}\,{w_1}^5{w_2}^2){x^{27}} + O(x^{29}))$$

Notice that for the Araki generators w_i we can verify that [Rez, p.15]

$$\begin{aligned}
[3]_W(x) &= 3x + \cdots, \\
[3]_W(x) &\equiv w_1 x^3 + \cdots \mod (3), \\
[3]_W(x) &\equiv w_2 x^9 + \cdots \mod (3, w_1), \\
[3]_W(x) &\equiv w_3 x^27 + \cdots \mod (3, w_1, w_2),
\end{aligned}$$

8.4. $F_S(x,y)$ **at** $p = 3$ **over** $\mathbb{Z}[S]$**.** Using the Maple commands below, we can explicitly compute this formal group law. Since this formal group law seems ancillary, we leave it to the reader to construct it using [Haz78, p.16, §3.1], [Haz77a, p.132, 2.2.3], [Haz77a, p.133, 2.2.6], [Haz77a, p.137, 4.1.4, 4.2.3], [Haz77a, p.138, 4.3.3].

```
> restart: with(powseries):
> p:=3:
> # The b_i are the coefficients in the logarithm
> b[0]:=0:
> b[1]:=1:
> b[2]:=s[2]:
> b[3]:=s[3]/3:
> b[4]:=s[4]:
> b[5]:=s[5]:
> b[6]:=s[3]*s[2]^3/3 + s[6]:
> b[7]:=s[7]:
> b[8]:=s[8]:
> b[9]:=s[3]*s[3]^3/9 + s[9]/3:
> b[10]:=s[10]:
> b[11]:=s[11]:
> b[12]:=s[3]/3*s[4]^3 + s[12]:
> b[13]:=s[13]:
> b[14]:=s[14]:
> b[15]:=s[3]/3*s[5]^3 + s[15]:
> b[16]:=s[16]:
> b[17]:=s[17]:
> b[18]:=s[3]*s[3]^3/9*s[2]^9 + s[9]/3*s[2]^9
  + s[3]/3*s[6]^3 + s[18]:;
> b[19]:=s[19]:
> b[20]:=s[20]:
> b[21]:=s[3]/3*s[7]^3 + s[21]:
> b[22]:=s[22]:
> b[23]:=s[23]:
> b[24]:=s[3]/3*s[8]^3 + s[24]:
> b[25]:=s[25]:
> b[26]:=s[26]:
> b[27]:=s[3]*s[3]^3*s[3]^9/27 + s[9]*s[3]^9/9
  + s[3]*s[9]^3/9 + s[27]/3:;
> m:=28: # the truncation degree
> f_S:=x->sum(b[i]*x^i,i=0..(m-1));
> f_S(x);
> latex(%);
> log_S:=powpoly(f_S(x),x);
> tpsform(log_S,x);
> exp_S:=reversion(log_S);
> simplify(tpsform(exp_S,x,10));
```



```
> e_S:=x->convert(simplify(tpsform(exp_S,x,10)),
  polynom);
> F_S:=(x,y)->sort( simplify( mtaylor( subs(z=
  f_S(x)+f_S(y),e_S(z)), [x,y], 10 ) ) , [x,y]);
> F_S(x,y);
> latex(%);
```

The results of these computations are that the logarithm $\log_S(x)$ at $p = 3$ equals

$$x + s_2x^2 + 1/3\, s_3x^3 + s_4x^4 + s_5x^5 + (1/3\, s_3{s_2}^3 + s_6)x^6 + s_7x^7 + s_8x^8 + (1/9\, {s_3}^4 + 1/3\, s_9)x^9 + s_{10}x^{10} + s_{11}x^{11} + (1/3\, s_3{s_4}^3 + s_{12})x^{12} + s_{13}x^{13} + s_{14}x^{14} + (1/3\, s_3{s_5}^3 + s_{15})x^{15} + s_{16}x^{16} + s_{17}x^{17} + (1/9\, {s_3}^4{s_2}^9 + 1/3\, s_9{s_2}^9 + 1/3\, s_3{s_6}^3 + s_{18})x^{18} + s_{19}x^{19} + s_{20}x^{20} + (1/3\, s_3{s_7}^3 + s_{21})x^{21} + s_{22}x^{22} + s_{23}x^{23} + (1/3\, s_3{s_8}^3 + s_{24})x^{24} + s_{25}x^{25} + s_{26}x^{26} + (1/27\, {s_3}^{13} + 1/9\, s_9{s_3}^9 + 1/9\, s_3{s_9}^3 + 1/3\, s_{27})x^{27}$$

and the formal group law $F_S(x,y)$ at $p = 3$ equals

$$x + y$$

$$-2\, s_2xy$$

$$+4\, {s_2}^2x^2y - s_3x^2y + 4\, {s_2}^2xy^2 - s_3xy^2$$

$$-4\, s_4x^3y + 4\, s_3{s_2}^2x^3y - 8\, {s_2}^3x^3y - 6\, s_4x^2y^2 + 8\, s_3s_2x^2y^2 - 20\, {s_2}^3x^2y^2 - 4\, s_4xy^3 + 4\, s_3s_2xy^3 - 8\, {s_2}^3xy^3$$

$$+16\, {s_2}^4x^4y + {s_3}^2x^4y + 16\, s_4s_2x^4y - 12\, s_3{s_2}^2x^4y - 5\, s_5x^4y - 44\, s_3{s_2}^2x^3y^2 + 44\, s_4s_2x^3y^2 + 72\, {s_2}^4x^3y^2 - 10\, s_5x^3y^2 + 3\, {s_3}^2x^3y^2 + 3\, {s_3}^2x^2y^3 - 44\, s_3{s_2}^2x^2y^3 + 72\, {s_2}^4x^2y^3 - 10\, s_5x^2y^3 + 44\, s_4s_2x^2y^3 + 16\, {s_2}^4xy^4 - 12\, s_3{s_2}^2xy^4 + {s_3}^2xy^4 - 5\, s_5xy^4 + 16\, s_4s_2xy^4$$

$$-6\, s_2{s_3}^2x^5y + 20\, s_5s_2x^5y - 48\, s_4{s_2}^2x^5y + 30\, s_3{s_2}^3x^5y + 8\, s_3s_4x^5y - 6\, s_6x^5y - 32\, {s_2}^5x^5y + 70\, s_5{s_2}^2x^4y^2 + 30\, s_3s_4x^4y^2 - 29\, s_2{s_3}^2x^4y^2 - 224\, {s_2}^5x^4y^2 - 224\, s_4{s_2}^2x^4y^2 + 183\, s_3{s_2}^3x^4y^2 - 15\, s_6x^4y^2 - 344\, s_4{s_2}^2x^3y^3 + 44\, s_3s_4x^3y^3 - 400\, {s_2}^5x^3y^3 - 46\, s_2{s_3}^2x^3y^3 + 100\, s_5s_2x^3y^3 - 20\, s_6x^3y^3 + 308\, s_3{s_2}^3x^3y^3 + 70\, s_5{s_2}^2x^2y^4 - 224\, {s_2}^5x^2y^4 - 29\, s_2{s_3}^2x^2y^4 + 30\, s_3s_4x^2y^4 + 183\, s_3{s_2}^3x^2y^4 - 224\, s_4{s_2}^2x^2y^4 - 15\, s_6x^2y^4 - 6\, s_2{s_3}^2xy^5 + 8\, s_3s_4xy^5 - 48\, s_4{s_2}^2xy^5 - 6\, s_6xy^5 + 20\, s_5s_2xy^5 - 32\, {s_2}^5xy^5 + 30\, s_3{s_2}^3xy^5$$

$$-48\, s_2s_3s_4x^6y - 7\, s_7x^6y + 64\, {s_2}^6x^6y + 16\, s_4{}^2x^6y + 10\, s_3s_5x^6y + 24\, {s_2}^2{s_3}^2x^6y - {s_3}^3x^6y + 24\, s_2s_6x^6y + 128\, s_4{s_2}^3x^6y - 72\, s_3{s_2}^4x^6y - 60\, s_5{s_2}^2x^6y + 174\, {s_2}^2{s_3}^2x^5y^2 + 102\, s_2s_6x^5y^2 - 280\, s_2s_3s_4x^5y^2 - 654\, s_3{s_2}^4x^5y^2 + 72\, s_4{}^2x^5y^2 + 640\, {s_2}^6x^5y^2 + 912\, s_4{s_2}^3x^5y^2 + 45\, s_3s_5x^5y^2 - 340\, s_5{s_2}^2x^5y^2 - 6\, {s_3}^3x^5y^2 - 21\, s_7x^5y^2 - 1678\, s_3{s_2}^4x^4y^3 - 13\, {s_3}^3x^4y^3 - 700\, s_5{s_2}^2x^4y^3 + 406\, {s_2}^2{s_3}^2x^4y^3 - 35\, s_7x^4y^3 - 588\, s_2s_3s_4x^4y^3 + 2080\, s_4{s_2}^3x^4y^3 + 136\, s_4{}^2x^4y^3 + 85\, s_3s_5x^4y^3 + 190\, s_2s_6x^4y^3 + 1760\, {s_2}^6x^4y^3 - 700\, s_5{s_2}^2x^3y^4 - 35\, s_7x^3y^4 + 190\, s_2s_6x^3y^4 + 85\, s_3s_5x^3y^4 + 1760\, {s_2}^6x^3y^4 + 136\, s_4{}^2x^3y^4 - 13\, {s_3}^3x^3y^4 + 2080\, s_4{s_2}^3x^3y^4 + 406\, {s_2}^2{s_3}^2x^3y^4 - 588\, s_2s_3s_4x^3y^4 - 1678\, s_3{s_2}^4x^3y^4 - 654\, s_3{s_2}^4x^2y^5 - 340\, s_5{s_2}^2x^2y^5 + 174\, {s_2}^2{s_3}^2x^2y^5 - 21\, s_7x^2y^5 + 45\, s_3s_5x^2y^5 - 6\, {s_3}^3x^2y^5 - 280\, s_2s_3s_4x^2y^5 + 640\, {s_2}^6x^2y^5 + 912\, s_4{s_2}^3x^2y^5 + 102\, s_2s_6x^2y^5 + 72\, s_4{}^2x^2y^5 - 7\, s_7xy^6 - 48\, s_2s_3s_4xy^6 + 64\, {s_2}^6xy^6 + 128\, s_4{s_2}^3xy^6 + 10\, s_3s_5xy^6 - 72\, s_3{s_2}^4xy^6 + 24\, s_2s_6xy^6 - 60\, s_5{s_2}^2xy^6 + 16\, s_4{}^2xy^6 - {s_3}^3xy^6 + 24\, {s_2}^2{s_3}^2xy^6$$

$$-12\, {s_3}^2s_4x^7y - 76\, {s_2}^3{s_3}^2x^7y + 8\, s_2{s_3}^3x^7y - 72\, {s_2}^2s_6x^7y - 320\, s_4{s_2}^4x^7y + 40\, s_4s_5x^7y + 168\, s_3{s_2}^5x^7y - 8\, s_8x^7y + 160\, s_5{s_2}^3x^7y + 28\, s_7s_2x^7y + 12\, s_3s_6x^7y - 60\, s_2s_3s_5x^7y - 128\, {s_2}^7x^7y + 192\, {s_2}^2s_3s_4x^7y - 96\, s_2s_4{}^2x^7y - 3232\, s_4{s_2}^4x^6y^2 - 656\, s_2s_4{}^2x^6y^2 - 84\, {s_3}^2s_4x^6y^2 - 480\, {s_2}^2s_6x^6y^2 + 63\, s_3s_6x^6y^2 + 1340\, s_5{s_2}^3x^6y^2 - 410\, s_2s_3s_5x^6y^2 - 795\, {s_2}^3{s_3}^2x^6y^2 + 2112\, s_3{s_2}^5x^6y^2 - 28\, s_8x^6y^2 + 210\, s_4s_5x^6y^2 + 69\, s_2{s_3}^3x^6y^2 + 1632\, {s_2}^2s_3s_4x^6y^2 + 140\, s_7s_2x^6y^2 - 1728\, {s_2}^7x^6y^2 + 322\, s_7s_2x^5y^3 - 1244\, {s_2}^2s_6x^5y^3 - 56\, s_8x^5y^3 + 206\, s_2{s_3}^3x^5y^3 - 10400\, s_4{s_2}^4x^5y^3 - 2614\, {s_2}^3{s_3}^2x^5y^3 + 480\, s_4s_5x^5y^3 + 4768\, {s_2}^2s_3s_4x^5y^3 - 224\, {s_3}^2s_4x^5y^3 + 7692\, s_3{s_2}^5x^5y^3 - 6720\, {s_2}^7x^5y^3 + 146\, s_3s_6x^5y^3 + 3880\, s_5{s_2}^3x^5y^3 - 1070\, s_2s_3s_5x^5y^3 -$$

$1696\,s_2{s_4}^2x^5y^3 + 6648\,{s_2}^2s_3s_4x^4y^4 + 11520\,s_3{s_2}^5x^4y^4 - 2276\,s_2{s_4}^2x^4y^4 - 1680\,{s_2}^2s_6x^4y^4 + 420\,s_7s_2x^4y^4 - 14944\,s_4{s_2}^4x^4y^4 - 70\,s_8x^4y^4 + 290\,s_2{s_3}^3x^4y^4 - 304\,{s_3}^2s_4x^4y^4 + 620\,s_4s_5x^4y^4 + 190\,s_3s_6x^4y^4 + 5400\,s_5{s_2}^3x^4y^4 - 1440\,s_2s_3s_5x^4y^4 - 10320\,{s_2}^7x^4y^4 - 3790\,{s_2}^3{s_3}^2x^4y^4 - 6720\,{s_2}^7x^3y^5 - 56\,s_8x^3y^5 - 224\,{s_3}^2s_4x^3y^5 - 2614\,{s_2}^3{s_3}^2x^3y^5 + 322\,s_7s_2x^3y^5 + 4768\,{s_2}^2s_3s_4x^3y^5 + 7692\,s_3{s_2}^5x^3y^5 + 480\,s_4s_5x^3y^5 + 146\,s_3s_6x^3y^5 - 1070\,s_2s_3s_5x^3y^5 - 10400\,s_4{s_2}^4x^3y^5 + 206\,s_2{s_3}^3x^3y^5 - 1244\,{s_2}^2s_6x^3y^5 - 1696\,s_2{s_4}^2x^3y^5 + 3880\,s_5{s_2}^3x^3y^5 + 1340\,s_5{s_2}^3x^2y^6 + 63\,s_3s_6x^2y^6 - 480\,{s_2}^2s_6x^2y^6 - 1728\,{s_2}^7x^2y^6 - 656\,s_2{s_4}^2x^2y^6 + 1632\,{s_2}^2s_3s_4x^2y^6 - 795\,{s_2}^3{s_3}^2x^2y^6 - 28\,s_8x^2y^6 - 3232\,s_4{s_2}^4x^2y^6 + 210\,s_4s_5x^2y^6 - 84\,{s_3}^2s_4x^2y^6 - 410\,s_2s_3s_5x^2y^6 + 69\,s_2{s_3}^3x^2y^6 + 140\,s_7s_2x^2y^6 + 2112\,s_3{s_2}^5x^2y^6 - 96\,s_2{s_4}^2xy^7 - 60\,s_2s_3s_5xy^7 - 12\,{s_3}^2s_4xy^7 - 76\,{s_2}^3{s_3}^2xy^7 - 320\,s_4{s_2}^4xy^7 + 12\,s_3s_6xy^7 - 8\,s_8xy^7 + 192\,{s_2}^2s_3s_4xy^7 + 40\,s_4s_5xy^7 + 28\,s_7s_2xy^7 - 72\,{s_2}^2s_6xy^7 + 160\,s_5{s_2}^3xy^7 + 168\,s_3{s_2}^5xy^7 + 8\,s_2{s_3}^3xy^7 - 128\,{s_2}^7xy^7$

$14\,s_3{s_7}^2x^8y - 15\,{s_3}^2s_5x^8y - 48\,s_3{s_4}^2x^8y - 84\,s_7{s_2}^2x^8y - 40\,{s_2}^2{s_3}^3x^8y - 384\,s_3{s_2}^6x^8y + 768\,s_4{s_2}^5x^8y + 216\,{s_2}^4{s_3}^2x^8y - 400\,s_5{s_2}^4x^8y + 192\,{s_2}^3s_6x^8y + 384\,{s_2}^2s_4{s_2}^2x^8y + 32\,s_8s_2x^8y + 48\,s_4s_6x^8y + 256\,{s_2}^8x^8y - 72\,s_2s_3s_6x^8y - 240\,s_2s_4s_5x^8y + 96\,s_2{s_3}^2s_4x^8y - 624\,{s_2}^3s_3s_4x^8y + 240\,{s_2}^2s_3s_5x^8y + 25\,{s_5}^2x^8y - 3\,s_9x^8y - 7392\,{s_2}^3s_3s_4x^7y^2 + 948\,s_2{s_3}^2s_4x^7y^2 + 288\,s_4s_6x^7y^2 + 2340\,{s_2}^2s_3s_5x^7y^2 - 12\,s_9x^7y^2 + 150\,{s_5}^2x^7y^2 - 384\,s_3{s_4}^2x^7y^2 - 644\,s_7{s_2}^2x^7y^2 - 472\,s_2{s_3}^3x^7y^2 + 4480\,{s_2}^8x^7y^2 + 6\,{s_3}^4x^7y^2 + 10432\,s_4{s_2}^5x^7y^2 + 3092\,{s_2}^4{s_3}^2x^7y^2 - 4640\,s_5{s_2}^4x^7y^2 + 1848\,{s_2}^3s_6x^7y^2 + 184\,s_8s_2x^7y^2 + 84\,s_3s_7x^7y^2 - 564\,s_2s_3s_6x^7y^2 - 1880\,s_2s_4s_5x^7y^2 - 120\,{s_3}^2s_5x^7y^2 + 3744\,{s_2}^2{s_4}^2x^7y^2 - 6360\,s_3{s_2}^6x^7y^2 + 13758\,{s_2}^4{s_3}^2x^6y^3 - 28\,s_9x^6y^3 + 45248\,s_4{s_2}^5x^6y^3 - 1766\,s_2s_3s_6x^6y^3 - 5780\,s_2s_4s_5x^6y^3 + 6512\,{s_2}^3s_6x^6y^3 + 13056\,{s_2}^2s_4{s_2}^2x^6y^3 - 31184\,s_3{s_2}^6x^6y^3 + 8240\,{s_2}^2s_3s_5x^6y^3 - 380\,{s_3}^2s_5x^6y^3 - 1882\,{s_2}^2{s_3}^3x^6y^3 - 18200\,s_5{s_2}^4x^6y^3 - 29192\,{s_2}^3s_3s_4x^6y^3 + 27\,{s_3}^4x^6y^3 - 2016\,s_7{s_2}^2x^6y^3 + 231\,s_3s_7x^6y^3 + 400\,{s_5}^2x^6y^3 + 23296\,{s_2}^8x^6y^3 - 1208\,s_3{s_4}^2x^6y^3 + 776\,s_4s_6x^6y^3 + 3376\,s_2{s_3}^2s_4x^6y^3 + 504\,s_8s_2x^6y^3 + 52\,s_3{s_4}^2x^5y^4 + 6052\,s_2s_3{s_4}^2x^5y^4 - 54808\,{s_2}^3s_3s_4x^5y^4 - 42\,s_9x^5y^4 + 371\,s_3s_7x^5y^4 + 50400\,{s_2}^8x^5y^4 - 2994\,s_2s_3s_6x^5y^4 + 812\,s_8s_2x^5y^4 + 14680\,{s_2}^2s_3s_5x^5y^4 - 645\,{s_3}^2s_5x^5y^4 + 88960\,s_4{s_2}^5x^5y^4 + 625\,{s_5}^2x^5y^4 + 23064\,{s_2}^2{s_4}^2x^5y^4 - 65144\,s_3{s_2}^6x^5y^4 - 34160\,s_5{s_2}^4x^5y^4 - 3566\,{s_2}^2{s_3}^3x^5y^4 + 11688\,{s_2}^3s_6x^5y^4 - 2044\,s_3{s_4}^2x^5y^4 + 1224\,s_4s_6x^5y^4 - 3444\,s_7{s_2}^2x^5y^4 - 9640\,s_2s_4s_5x^5y^4 + 27402\,{s_2}^4{s_3}^2x^5y^4 - 9640\,s_2s_4s_5x^4y^5 + 23064\,s_2{s_4}^2x^4y^5 - 2044\,s_3{s_4}^2x^4y^5 - 2994\,s_2s_3s_6x^4y^5 + 88960\,s_4{s_2}^5x^4y^5 - 42\,s_9x^4y^5 + 50400\,{s_2}^8x^4y^5 + 812\,s_8s_2x^4y^5 + 371\,s_3s_7x^4y^5 - 645\,{s_3}^2s_5x^4y^5 + 1224\,s_4s_6x^4y^5 - 3566\,{s_2}^2{s_3}^3x^4y^5 + 625\,{s_5}^2x^4y^5 + 52\,{s_3}^4x^4y^5 - 3444\,s_7{s_2}^2x^4y^5 + 14680\,{s_2}^2s_3s_5x^4y^5 - 65144\,s_3{s_2}^6x^4y^5 + 6052\,s_2{s_3}^2s_4x^4y^5 - 54808\,{s_2}^3s_3s_4x^4y^5 + 27402\,{s_2}^4{s_3}^2x^4y^5 - 34160\,s_5{s_2}^4x^4y^5 + 11688\,{s_2}^3s_6x^4y^5 - 2016\,s_7{s_2}^2x^3y^6 - 380\,{s_3}^2s_5x^3y^6 + 776\,s_4s_6x^3y^6 - 1208\,s_3{s_4}^2x^3y^6 - 1882\,{s_2}^2{s_3}^3x^3y^6 + 231\,s_3s_7x^3y^6 + 8240\,{s_2}^2s_3s_5x^3y^6 - 5780\,s_2s_4s_5x^3y^6 + 504\,s_8s_2x^3y^6 + 13056\,{s_2}^2s_4{s_2}^2x^3y^6 + 27\,{s_3}^4x^3y^6 - 31184\,s_3{s_2}^6x^3y^6 + 45248\,s_4{s_2}^5x^3y^6 + 13758\,{s_2}^4{s_3}^2x^3y^6 - 18200\,s_5{s_2}^4x^3y^6 + 400\,{s_5}^2x^3y^6 - 28\,s_9x^3y^6 + 23296\,{s_2}^8x^3y^6 - 29192\,{s_2}^3s_3s_4x^3y^6 + 3376\,s_2{s_3}^2s_4x^3y^6 - 1766\,s_2s_3s_6x^3y^6 + 6512\,{s_2}^3s_6x^3y^6 + 2340\,{s_2}^2s_3s_5x^2y^7 + 6\,{s_3}^4x^2y^7 + 4480\,{s_2}^8x^2y^7 - 12\,s_9x^2y^7 + 1848\,{s_2}^3s_6x^2y^7 + 150\,{s_5}^2x^2y^7 - 7392\,{s_2}^3s_3s_4x^2y^7 - 384\,s_3{s_4}^2x^2y^7 + 948\,s_2{s_3}^2s_4x^2y^7 + 3092\,{s_2}^4{s_3}^2x^2y^7 - 472\,{s_2}^2{s_3}^3x^2y^7 + 10432\,s_4{s_2}^5x^2y^7 - 6360\,s_3{s_2}^6x^2y^7 - 4640\,s_5{s_2}^4x^2y^7 + 288\,s_4s_6x^2y^7 + 84\,s_3s_7x^2y^7 + 3744\,{s_2}^2{s_4}^2x^2y^7 - 564\,s_2s_3s_6x^2y^7 - 1880\,s_2s_4s_5x^2y^7 - 644\,s_7{s_2}^2x^2y^7 - 120\,{s_3}^2s_5x^2y^7 + 184\,s_8s_2x^2y^7 + 256\,{s_2}^8xy^8 - 40\,{s_2}^2{s_3}^3xy^8 - 48\,s_3{s_4}^2xy^8 + 48\,s_4s_6xy^8 - 384\,s_3{s_2}^6xy^8 + 25\,{s_5}^2xy^8 - 240\,s_2s_4s_5xy^8 + 768\,s_4{s_2}^5xy^8 + 14\,s_3s_7xy^8 + 216\,{s_2}^4{s_3}^2xy^8 + 384\,{s_2}^2{s_4}^2xy^8 + 192\,{s_2}^3s_6xy^8 - 15\,{s_3}^2s_5xy^8 - 624\,{s_2}^3s_3s_4xy^8 - 84\,s_7{s_2}^2xy^8 - 72\,s_2s_3s_6xy^8 - 400\,s_5{s_2}^4xy^8 + 96\,s_2{s_3}^2s_4xy^8 + 240\,{s_2}^2s_3s_5xy^8 + 32\,s_8s_2xy^8 - 3\,s_9xy^8$

Some values of the n-series for $F_S(x,y)$ at $p = 3$ are:

$[2]_S(x) = (2\,x - 2\,s_2x^2 + (8\,{s_2}^2 - 2\,s_3)x^3 + (-14\,s_4 + 16\,s_3s_2 - 36\,{s_2}^3)x^4 + (-112\,s_3{s_2}^2 + 176\,{s_2}^4 + 8\,{s_3}^2 + 120\,s_4s_2 - 30\,s_5)x^5 + (-912\,{s_2}^5 - 62\,s_6 + 734\,s_3{s_2}^3 - 116\,s_2{s_3}^2 - 888\,s_4{s_2}^2 + 120\,s_3s_4 + 280\,s_5s_2)x^6 + (-40\,{s_3}^3 + 448\,{s_4}^2 + 4928\,{s_2}^6 - 126\,s_7 - 1832\,s_2s_3s_4 + 280\,s_3s_5 + 632\,s_2s_6 -$

$2200\,s_5{s_2}^2 + 1208\,{s_2}^2{s_3}^2 + 6240\,s_4{s_2}^3 - 4808\,s_3{s_2}^4)x^7 + (19832\,{s_2}^2s_3s_4 + 1400\,s_7s_2 - 27472\,{s_2}^7 - 254\,s_8 - 4520\,s_2s_3s_5 + 2080\,s_4s_5 - 944\,{s_3}^2s_4 + 632\,s_3s_6 - 7172\,s_2{s_4}^2 - 5272\,{s_2}^2s_6 + 16160\,s_5{s_2}^3 - 10760\,{s_2}^3{s_3}^2 - 42848\,s_4{s_2}^4 + 31464\,s_3{s_2}^5 + 856\,s_2{s_3}^3)x^8 + (-184032\,{s_2}^3s_3s_4 + 2400\,{s_5}^2 + 156864\,{s_2}^8 + 170\,{s_3}^4 - 170\,s_9 - 10792\,s_2s_3s_6 - 35080\,s_2s_4s_5 + 20944\,s_2{s_3}^2s_4 + 51000\,{s_2}^2s_3s_5 + 40480\,{s_2}^3s_6 - 114800\,s_5{s_2}^4 + 88936\,{s_2}^4{s_3}^2 + 290816\,s_4{s_2}^5 - 206144\,s_3{s_2}^6 - 11920\,{s_2}^2{s_3}^3 - 12376\,s_7{s_2}^2 - 7368\,s_3{s_4}^2 - 2320\,{s_3}^2s_5 + 1400\,s_3s_7 + 4672\,s_4s_6 + 3064\,s_8s_2 + 80496\,{s_2}^2{s_4}^2)x^9 + O(x^{10}))$

$[3]_S(x) = (3\,x - 6\,s_2x^2 + (36\,{s_2}^2 - 8\,s_3)x^3 + (102\,s_3s_2 - 252\,{s_2}^3 - 78\,s_4)x^4 + (1116\,s_4s_2 - 1140\,s_3{s_2}^2 + 1944\,{s_2}^4 + 72\,{s_3}^2 - 240\,s_5)x^5 + (-15984\,{s_2}^5 - 726\,s_6 + 12034\,s_3{s_2}^3 - 1702\,s_2{s_3}^2 - 13464\,s_4{s_2}^2 + 1566\,s_3s_4 + 3870\,s_5s_2)x^6 + (-840\,{s_3}^3 + 8424\,{s_4}^2 + 137376\,{s_2}^6 - 2184\,s_7 - 39696\,s_2s_3s_4 + 5400\,s_3s_5 + 13104\,s_2s_6 - 50400\,s_5{s_2}^2 + 28656\,{s_2}^2{s_3}^2 + 152928\,s_4{s_2}^3 - 126096\,s_3{s_2}^4)x^7 + (702432\,{s_2}^2s_3s_4 + 43722\,s_7s_2 - 1219536\,{s_2}^7 - 6558\,s_8 - 146940\,s_2s_3s_5 + 57510\,s_4s_5 - 29070\,{s_3}^2s_4 + 18198\,s_3s_6 - 227700\,s_2{s_4}^2 - 183564\,{s_2}^2s_6 + 604260\,s_5{s_2}^3 - 412902\,{s_2}^3{s_3}^2 - 1689984\,s_4{s_2}^4 + 1318620\,s_3{s_2}^5 + 29382\,s_2{s_3}^3)x^8 + (-10596852\,{s_2}^3s_3s_4 + 97200\,{s_5}^2 + 11096352\,{s_2}^8 + 9000\,{s_3}^4 - 6560\,s_9 - 530232\,s_2s_3s_6 - 1660680\,s_2s_4s_5 + 1065564\,s_2{s_3}^2s_4 + 2736180\,{s_2}^2s_3s_5 + 2319840\,{s_2}^3s_6 - 6953040\,s_5{s_2}^4 + 5498296\,{s_2}^4{s_3}^2 + 18413568\,s_4{s_2}^5 - 13798512\,s_3{s_2}^6 - 663640\,{s_2}^2{s_3}^3 - 655956\,s_7{s_2}^2 - 330588\,s_3{s_4}^2 - 106560\,{s_3}^2s_5 + 60480\,s_3s_7 + 192132\,s_4s_6 + 144324\,s_8s_2 + 4223016\,{s_2}^2{s_4}^2)x^9 + O(x^{10}))$

$[4]_S(x) = (4\,x - 12\,s_2x^2 + (96\,{s_2}^2 - 20\,s_3)x^3 + (352\,s_3s_2 - 912\,{s_2}^3 - 252\,s_4)x^4 + (5088\,s_4s_2 - 5408\,s_3{s_2}^2 + 9600\,{s_2}^4 + 320\,{s_3}^2 - 1020\,s_5)x^5 + (-107904\,{s_2}^5 - 4092\,s_6 + 78572\,s_3{s_2}^3 - 10512\,s_2{s_3}^2 - 85152\,s_4{s_2}^2 + 9152\,s_3s_4 + 23520\,s_5s_2)x^6 + (-6720\,{s_3}^3 + 64512\,{s_4}^2 + 1268736\,{s_2}^6 - 16380\,s_7 - 325088\,s_2s_3s_4 + 41920\,s_3s_5 + 106464\,s_2s_6 - 427680\,s_5{s_2}^2 + 244416\,{s_2}^2{s_3}^2 + 1334016\,s_4{s_2}^3 - 1129696\,s_3{s_2}^4)x^7 + (7984320\,{s_2}^2s_3s_4 + 475104\,s_7s_2 - 15414528\,{s_2}^7 - 65532\,s_8 - 1608160\,s_2s_3s_5 + 583680\,s_4s_5 - 307072\,{s_3}^2s_4 + 188352\,s_3s_6 - 2462736\,s_2{s_4}^2 - 2092704\,{s_2}^2s_6 + 7100160\,s_5{s_2}^3 - 4857664\,{s_2}^3{s_3}^2 - 20280192\,s_4{s_2}^4 + 16197152\,s_3{s_2}^5 + 326592\,s_2{s_3}^3)x^8 + (-166557440\,{s_2}^3s_3s_4 + 1305600\,{s_5}^2 + 191993856\,{s_2}^8 + 132260\,{s_3}^4 - 87380\,s_9 - 7772640\,s_2s_3s_6 - 23938080\,s_2s_4s_5 + 15719040\,s_2{s_3}^2s_4 + 41730240\,{s_2}^2s_3s_5 + 36744960\,{s_2}^3s_6 - 112686720\,s_5{s_2}^4 + 89031520\,{s_2}^4{s_3}^2 + 303553536\,s_4{s_2}^5 - 232297216\,s_3{s_2}^6 - 10199680\,{s_2}^2{s_3}^3 - 10043040\,s_7{s_2}^2 - 4596800\,s_3{s_4}^2 - 1499520\,{s_3}^2s_5 + 835520\,s_3s_7 + 2595840\,s_4s_6 + 2097120\,s_8s_2 + 63722880\,{s_2}^2{s_4}^2)x^9 + O(x^{10}))$

$[5]_S(x) = (5\,x - 20\,s_2x^2 + (-40\,s_3 + 200\,{s_2}^2)x^3 + (-2400\,{s_2}^3 + 900\,s_3s_2 - 620\,s_4)x^4 + (-3120\,s_5 + 32000\,{s_2}^4 - 17600\,s_3{s_2}^2 + 16200\,s_4s_2 + 1000\,{s_3}^2)x^5 + (-456000\,{s_2}^5 - 15620\,s_6 + 325460\,s_3{s_2}^3 - 42100\,s_2{s_3}^2 - 346800\,s_4{s_2}^2 + 35500\,s_3s_4 + 93700\,s_5s_2)x^6 + (-33000\,{s_3}^3 + 310000\,{s_4}^2 + 6800000\,{s_2}^6 - 78120\,s_7 - 1623600\,s_2s_3s_4 + 203000\,s_3s_5 + 531200\,s_2s_6 - 2186800\,s_5{s_2}^2 + 1249000\,{s_2}^2{s_3}^2 + 6924000\,s_4{s_2}^3 - 5945600\,s_3{s_2}^4)x^7 + (51026000\,{s_2}^2s_3s_4 + 2968700\,s_7s_2 - 104800000\,{s_2}^7 - 390620\,s_8 - 10058600\,s_2s_3s_5 + 3497500\,s_4s_5 - 1875500\,{s_3}^2s_4 + 1140500\,s_3s_6 - 15304400\,s_2{s_4}^2 - 13436800\,{s_2}^2s_6 + 46364000\,s_5{s_2}^3 - 31638500\,{s_2}^3{s_3}^2 - 133928000\,s_4{s_2}^4 + 108254400\,s_3{s_2}^5 + 2054500\,s_2{s_3}^3)x^8 + (-1358647000\,{s_2}^3s_3s_4 + 9750000\,{s_5}^2 + 1656000000\,{s_2}^8 + 1029320\,{s_3}^4 - 651040\,s_9 - 60933600\,s_2s_3s_6 - 186038800\,s_2s_4s_5 + 123347000\,s_2{s_3}^2s_4 + 334716000\,{s_2}^2s_3s_5 + 301864000\,{s_2}^3s_6 - 937568000\,s_5{s_2}^4 + 738088800\,{s_2}^4{s_3}^2 + 2548400000\,s_4{s_2}^5 - 1971112000\,s_3{s_2}^6 - 81928000\,{s_2}^2{s_3}^3 - 80936800\,s_7{s_2}^2 - 34862000\,s_3{s_4}^2 - 11448000\,{s_3}^2s_5 + 6328000\,s_3s_7 + 19435000\,s_4s_6 + 16406200\,s_8s_2 + 508212000\,{s_2}^2{s_4}^2)x^9 + O(x^{10}))$

$[6]_S(x) = (6\,x - 30\,s_2x^2 + (360\,{s_2}^2 - 70\,s_3)x^3 + (1920\,s_3s_2 - 5220\,{s_2}^3 - 1290\,s_4)x^4 + (41400\,s_4s_2 - 45600\,s_3{s_2}^2 + 84240\,{s_2}^4 + 2520\,{s_3}^2 - 7770\,s_5)x^5 + (-1453680\,{s_2}^5 - 46650\,s_6 + 1023770\,s_3{s_2}^3 - 129460\,s_2{s_3}^2 - 1079640\,s_4{s_2}^2 + 106920\,s_3s_4 + 287640\,s_5s_2)x^6 + (-120120\,{s_3}^3 + 1114560\,{s_4}^2 + 26256960\,{s_2}^6 - 279930\,s_7 - 5984520\,s_2s_3s_4 + 733320\,s_3s_5 + 1959480\,s_2s_6 - 8194680\,s_5{s_2}^2 + 4671720\,{s_2}^2{s_3}^2 + 26192160\,s_4{s_2}^3 - 22681320\,s_3{s_2}^4)x^7 + (229187880\,{s_2}^2s_3s_4 + 13156920\,s_7s_2 -$

$$490205520\,s_2{}^7 - 1679610\,s_8 - 44553480\,s_2s_3s_5 + 15072480\,s_4s_5 - 8168400\,s_3{}^2s_4 + 4945320\,s_3s_6 - 67526820\,s_2s_4{}^2 - 60604920\,s_2{}^2s_6 + 211390560\,s_5s_2{}^3 - 143815320\,s_2{}^3s_3{}^2 - 614926080\,s_4s_2{}^4 + 500637000\,s_3s_2{}^5 + 9121800\,s_2s_3{}^3)x^8 + (-7423189920\,s_2{}^3s_3s_4 + 50349600\,s_5{}^2 + 9383999040\,s_2{}^8 + 5435710\,s_3{}^4 - 3359230\,s_9 - 324437640\,s_2s_3s_6 - 985592520\,s_2s_4s_5 + 656498160\,s_2s_3{}^2s_4 + 1809089640\,s_2{}^2s_3s_5 + 1658504160\,s_2{}^3s_6 - 5193130320\,s_5s_2{}^4 + 4073578120\,s_2{}^4s_3{}^2 + 14194154880\,s_4s_2{}^5 - 11048771520\,s_3s_2{}^6 - 442662320\,s_2{}^2s_3{}^3 - 439218360\,s_7s_2{}^2 - 181497240\,s_3s_4{}^2 - 59839920\,s_3{}^2s_5 + 32938920\,s_3s_7 + 100491840\,s_4s_6 + 87339960\,s_8s_2 + 2737573200\,s_2{}^2s_4{}^2)x^9 + O(x^{10}))$$

$$[7]_S(x) = (7\,x - 42\,s_2x^2 + (-112\,s_3 + 588\,s_2{}^2)x^3 + (-9996\,s_2{}^3 + 3626\,s_3s_2 - 2394\,s_4)x^4 + (91140\,s_4s_2 - 101332\,s_3s_2{}^2 + 189336\,s_2{}^4 + 5488\,s_3{}^2 - 16800\,s_5)x^5 + (-3836112\,s_2{}^5 - 117642\,s_6 + 2675974\,s_3s_2{}^3 - 332906\,s_2s_3{}^2 - 2802408\,s_4s_2{}^2 + 270970\,s_3s_4 + 739410\,s_5s_2)x^6 + (-356720\,s_3{}^3 + 3284568\,s_4{}^2 + 81365088\,s_2{}^6 - 823536\,s_7 - 17944192\,s_2s_3s_4 + 2167760\,s_3s_5 + 5882352\,s_2s_6 - 24872400\,s_5s_2{}^2 + 14150808\,s_2{}^2s_3{}^2 + 80015040\,s_4s_2{}^3 - 69679568\,s_3s_2{}^4)x^7 + (810489792\,s_2{}^2s_3s_4 + 46118310\,s_7s_2 - 1783923792\,s_2{}^7 - 5764794\,s_8 - 156020900\,s_2s_3s_5 + 51789570\,s_4s_5 - 28248794\,s_3{}^2s_4 + 17058762\,s_3s_6 - 235881492\,s_2s_4{}^2 - 215060412\,s_2{}^2s_6 + 755800500\,s_5s_2{}^3 - 512767850\,s_2{}^3s_3{}^2 - 2209172448\,s_4s_2{}^4 + 1807162924\,s_3s_2{}^5 + 31975146\,s_2s_3{}^3)x^8 + (-30920134252\,s_2{}^3s_3s_4 + 201684000\,s_5{}^2 + 40106073504\,s_2{}^8 + 22069040\,s_3{}^4 - 13451200\,s_9 - 1327065432\,s_2s_3s_6 - 4018750680\,s_2s_4s_5 + 2683339764\,s_2s_3{}^2s_4 + 7478710260\,s_2{}^2s_3s_5 + 6938423520\,s_2{}^3s_6 - 21848468880\,s_5s_2{}^4 + 17084944856\,s_2{}^4s_3{}^2 + 59944172736\,s_4s_2{}^5 - 46856176304\,s_3s_2{}^6 - 1828395800\,s_2{}^2s_3{}^3 - 1821675156\,s_7s_2{}^2 - 730492588\,s_3s_4{}^2 - 241472000\,s_3{}^2s_5 + 132590080\,s_3s_7 + 402820572\,s_4s_6 + 357417564\,s_8s_2 + 11292764616\,s_2{}^2s_4{}^2)x^9 + O(x^{10}))$$

$$[8]_S(x) = (8\,x - 56\,s_2x^2 + (896\,s_2{}^2 - 168\,s_3)x^3 + (6272\,s_3s_2 - 17472\,s_2{}^3 - 4088\,s_4)x^4 + (180096\,s_4s_2 - 201600\,s_3s_2{}^2 + 379904\,s_2{}^4 + 10752\,s_3{}^2 - 32760\,s_5)x^5 + (-8838144\,s_2{}^5 - 262136\,s_6 + 6121304\,s_3s_2{}^3 - 752192\,s_2s_3{}^2 - 6378624\,s_4s_2{}^2 + 605696\,s_3s_4 + 1671040\,s_5s_2)x^6 + (-913920\,s_3{}^3 + 8372224\,s_4{}^2 + 215269376\,s_2{}^6 - 2097144\,s_7 - 46324096\,s_2s_3s_4 + 5537280\,s_3s_5 + 15204224\,s_2s_6 - 64812160\,s_5s_2{}^2 + 36804096\,s_2{}^2s_3{}^2 + 209491968\,s_4s_2{}^3 - 183161216\,s_3s_2{}^4)x^7 + (2410644992\,s_2{}^2s_3s_4 + 136314752\,s_7s_2 - 5420240896\,s_2{}^7 - 16777208\,s_8 - 460691840\,s_2s_3s_5 + 150814720\,s_4s_5 - 82611200\,s_3{}^2s_4 + 49806848\,s_3s_6 - 695320640\,s_2s_4{}^2 - 641463424\,s_2{}^2s_6 + 2266880000\,s_5s_2{}^3 - 1534249472\,s_2{}^3s_3{}^2 - 6649201664\,s_4s_2{}^4 + 5457567360\,s_3s_2{}^5 + 94449152\,s_2s_3{}^3)x^8 + (-105850959872\,s_2{}^3s_3s_4 + 670924800\,s_5{}^2 + 139947343872\,s_2{}^8 + 74059720\,s_3{}^4 - 44739240\,s_9 - 4482111872\,s_2s_3s_6 - 13544702080\,s_2s_4s_5 + 9055785984\,s_2s_3{}^2s_4 + 25459607040\,s_2{}^2s_3s_5 + 23835105280\,s_2{}^3s_6 - 75366609920\,s_5s_2{}^4 + 58779858816\,s_2{}^4s_3{}^2 + 207347990528\,s_4s_2{}^5 - 162553853952\,s_3s_2{}^6 - 6218347520\,s_2{}^2s_3{}^3 - 6218052736\,s_7s_2{}^2 - 2437431808\,s_3s_4{}^2 - 807152640\,s_3{}^2s_5 + 442498560\,s_3s_7 + 1340588032\,s_4s_6 + 1207959424\,s_8s_2 + 38388059136\,s_2{}^2s_4{}^2)x^9 + O(x^{10}))$$

$$[9]_S(x) = (9\,x - 72\,s_2x^2 + (-240\,s_3 + 1296\,s_2{}^2)x^3 + (10152\,s_3s_2 - 28512\,s_2{}^3 - 6552\,s_4)x^4 + (327888\,s_4s_2 - 368928\,s_3s_2{}^2 + 699840\,s_2{}^4 + 19440\,s_3{}^2 - 59040\,s_5)x^5 + (-18382464\,s_2{}^5 - 531432\,s_6 + 12661032\,s_3s_2{}^3 - 1540872\,s_2s_3{}^2 - 13144032\,s_4s_2{}^2 + 1230552\,s_3s_4 + 3424680\,s_5s_2)x^6 + (-2093040\,s_3{}^3 + 19105632\,s_4{}^2 + 505564416\,s_2{}^6 - 4782960\,s_7 - 106744608\,s_2s_3s_4 + 12655440\,s_3s_5 + 35074944\,s_2s_6 - 150452640\,s_5s_2{}^2 + 85291056\,s_2{}^2s_3{}^2 + 488068416\,s_4s_2{}^3 - 427994496\,s_3s_2{}^4)x^7 + (6288412320\,s_2{}^2s_3s_4 + 353939544\,s_7s_2 - 14374153728\,s_2{}^7 - 43046712\,s_8 - 1195030800\,s_2s_3s_5 + 387099000\,s_4s_5 - 212659992\,s_3{}^2s_4 + 128076552\,s_3s_6 - 1801486656\,s_2s_4{}^2 - 1677223584\,s_2{}^2s_6 + 5952489120\,s_5s_2{}^3 - 4020407784\,s_2{}^3s_3{}^2 - 17506357632\,s_4s_2{}^4 + 14404904352\,s_3s_2{}^5 + 245014632\,s_2s_3{}^3)x^8 + (-312339700080\,s_2{}^3s_3s_4 + 1936807200\,s_5{}^2 + 419091065856\,s_2{}^8 + 215078320\,s_3{}^4 - 129140160\,s_9 - 13088286720\,s_2s_3s_6 - 39494057760\,s_2s_4s_5 + 26424422640\,s_2s_3{}^2s_4 + 74802048480\,s_2{}^2s_3s_5 + 70528475520\,s_2{}^3s_6 - 223722051840\,s_5s_2{}^4 + 174098770560\,s_2{}^4s_3{}^2 + 616790267136\,s_4s_2{}^5 - 484595623296\,s_3s_2{}^6 - 18252648000\,s_2{}^2s_3{}^3 - 18309201120\,s_7s_2{}^2 - 7050654720\,s_3s_4{}^2 - 2337776640\,s_3{}^2s_5 + 1280240640\,s_3s_7 + 3870990000\,s_4s_6 + 3529830960\,s_8s_2 + 112671440640\,s_2{}^2s_4{}^2)x^9 + O(x^{10}))$$

8.5. $F_{BP,T}(x,y)$ **at** $p = 3$ **over** $BP_*BP \cong BP_*[T]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> # Let C_j denote [CP^j].
> BPT:=proc(p,d)
> local tot,C,t,f_BPT,logBPT,expBPT,e_BPT,F_BPT;
> tot:=evalf(1+ceil(log(d-1)/log(p)));
> # print(tot); # the evalf above is necessary!!!
> C[0]:=1: t[0]:=1:
> f_BPT:=x->add( (add(C[p^j-1]*t[i-j]^(p^j)/(p^j),
  j=0..i))*x^(p^i), i=0..tot);
> print(f_BPT(x));
> latex(f_BPT(x));
> logBPT:=powpoly(f_BPT(x),x);
> expBPT:=reversion(logBPT);
> e_BPT:=x->convert(simplify(tpsform(expBPT,x,d+2)),
  polynom);
> F_BPT:=(x,y)->sort(simplify(mtaylor(subs(z=f_BPT(x)
  +f_BPT(y),e_BPT(z)),[x,y],d+1)), [x,y]);
> print(F_BPT(x,y));
> latex(F_BPT(x,y));
> end proc:
> BPT(3,10);
```

The results of these computations are that the logarithm $\log_{BP,T}(x)$ at $p = 3$ equals

$$x + (t_1 + 1/3\,C_2)x^3 + (t_2 + 1/3\,C_2{t_1}^3 + 1/9\,C_8)x^9 + (t_3 + 1/3\,C_2t_2{}^3 + 1/9\,C_8{t_1}^9 + 1/27\,C_{26})x^{27}$$

and the formal group law $F_{BP,T}(x,y)$ at $p = 2$ equals

$$x + y$$

$$-C_2x^2y - 3\,t_1x^2y - C_2xy^2 - 3\,t_1xy^2$$

$$+C_2{}^2x^4y + 6\,t_1C_2x^4y + 9\,{t_1}^2x^4y + 27\,{t_1}^2x^3y^2 + 3\,C_2{}^2x^3y^2 + 18\,t_1C_2x^3y^2 + 18\,t_1C_2x^2y^3 + 3\,C_2{}^2x^2y^3 + 27\,{t_1}^2x^2y^3 + 6\,t_1C_2xy^4 + C_2{}^2xy^4 + 9\,{t_1}^2xy^4$$

$$-27\,{t_1}^3x^6y - C_2{}^3x^6y - 27\,{t_1}^2C_2x^6y - 9\,t_1C_2{}^2x^6y - 54\,t_1C_2{}^2x^5y^2 - 162\,{t_1}^3x^5y^2 - 162\,{t_1}^2C_2x^5y^2 - 6\,C_2{}^3x^5y^2 - 351\,{t_1}^2C_2x^4y^3 - 351\,{t_1}^3x^4y^3 - 13\,C_2{}^3x^4y^3 - 117\,t_1C_2{}^2x^4y^3 - 351\,{t_1}^2C_2x^3y^4 - 117\,t_1C_2{}^2x^3y^4 - 351\,{t_1}^3x^3y^4 - 13\,C_2{}^3x^3y^4 - 162\,{t_1}^2C_2x^2y^5 - 162\,{t_1}^3x^2y^5 - 6\,C_2{}^3x^2y^5 - 54\,t_1C_2{}^2x^2y^5 - 27\,{t_1}^2C_2xy^6 - 27\,{t_1}^3xy^6 - C_2{}^3xy^6 - 9\,t_1C_2{}^2xy^6$$

$$-C_8x^8y + 81\,{t_1}^4x^8y + C_2{}^4x^8y - 9\,t_2x^8y + 54\,{t_1}^2C_2{}^2x^8y + 12\,t_1C_2{}^3x^8y + 105\,C_2{t_1}^3x^8y + 810\,{t_1}^4x^7y^2 + 120\,t_1C_2{}^3x^7y^2 + 10\,C_2{}^4x^7y^2 - 36\,t_2x^7y^2 + 1068\,C_2{t_1}^3x^7y^2 - 4\,C_8x^7y^2 + 540\,{t_1}^2C_2{}^2x^7y^2 - 84\,t_2x^6y^3 - \tfrac{28}{3}\,C_8x^6y^3 + 1962\,{t_1}^2C_2{}^2x^6y^3 + \tfrac{109}{3}\,C_2{}^4x^6y^3 + 436\,t_1C_2{}^3x^6y^3 + 3896\,C_2{t_1}^3x^6y^3 + 2943\,{t_1}^4x^6y^3 + 5346\,{t_1}^4x^5y^4 + 66\,C_2{}^4x^5y^4 - 14\,C_8x^5y^4 + 792\,t_1C_2{}^3x^5y^4 - 126\,t_2x^5y^4 + 7086\,C_2{t_1}^3x^5y^4 + 3564\,{t_1}^2C_2{}^2x^5y^4 + 66\,C_2{}^4x^4y^5 + 7086\,C_2{t_1}^3x^4y^5 + 5346\,{t_1}^4x^4y^5 - 14\,C_8x^4y^5 - 126\,t_2x^4y^5 + 3564\,{t_1}^2C_2{}^2x^4y^5 + 792\,t_1C_2{}^3x^4y^5 + 436\,t_1C_2{}^3x^3y^6 + \tfrac{109}{3}\,C_2{}^4x^3y^6 + 1962\,{t_1}^2C_2{}^2x^3y^6 + 3896\,C_2{t_1}^3x^3y^6 + 2943\,{t_1}^4x^3y^6 - 84\,t_2x^3y^6 - \tfrac{28}{3}\,C_8x^3y^6 + 540\,{t_1}^2C_2{}^2x^2y^7 + 120\,t_1C_2{}^3x^2y^7 -$$

$$36\,t_2x^2y^7 - 4\,C_8x^2y^7 + 10\,C_2{}^4x^2y^7 + 1068\,C_2{t_1}^3x^2y^7 + 810\,{t_1}^4x^2y^7 + 105\,C_2{t_1}^3xy^8 + 54\,{t_1}^2C_2{}^2xy^8 - C_8xy^8 - 9\,t_2xy^8 + C_2{}^4xy^8 + 81\,{t_1}^4xy^8 + 12\,t_1C_2{}^3xy^8$$

Some values of the n-series for $F_{BP,T}(x,y)$ at $p = 3$ are:

Omitted.

8.6. $F_{V,T}(x,y)$ **at** $p = 3$ **over** $\mathbb{Z}[V;T]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> # We write lambda_i for what Hazewinkel calls a_i(V),
  # then we will write a_i for what Hazewinkel calls a_i(V,T).
> lambda[0]:=1:
> L:=(m,n)->{ seq(p*lambda[j]=add(lambda[i]*V[j-i]^(p^i),
  i=0..(j-1)),j=m..n) };
> # the inputs m and n are the lower and upper bounds for
  # the subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> assign(expand(%)); # the assign command will do
  # lambda[i]:=... for each element in the set
> a[0]:=1: T[0]:=1:
> for n from 1 to 6 do
  a[n]:=add(lambda[i]*T[n-i]^(p^i),i=0..n); od;
> p:=3:
> m:=10: # the truncation degree for x
> q:=3: # the number of lambda[i]'s in the logarithm,
  # so that we know the logarithm to degree x^(p^q)
> f_VT:=x->sum(a[i]*x^(p^i),i=0..q);
> f_VT(x);
> latex(%);
> log_VT:=powpoly(f_VT(x),x);
> tpsform(log_VT,x);
> exp_VT:=reversion(log_VT);
> simplify(tpsform(exp_VT,x,m+1));
> latex(%);
> e_VT:=x->convert(simplify(tpsform(exp_VT,x,m+1)),polynom);
> F_VT:=(x,y)->sort( simplify( mtaylor( subs(z=f_VT(x)+f_VT(y),
  e_VT(z)), [x,y], m+1 ) ) , [x,y]);
> F_VT(x,y);
> latex(%);
```

The results of these computations are that the logarithm $\log_{V,T}(x)$ at $p = 3$ equals

$$x + (T_1 + 1/3\,V_1)\,x^3 + \left(T_2 + 1/3\,V_1{T_1}^3 + 1/3\,V_2 + 1/9\,{V_1}^4\right)x^9$$

$$+\left(T_3 + 1/3\,V_1T_2{}^3 + \left(1/3\,V_2 + 1/9\,{V_1}^4\right){T_1}^9 + 1/3\,V_3 + 1/9\,V_1V_2{}^3 + 1/9\,{V_1}^9V_2 + 1/27\,{V_1}^{13}\right)x^{27}$$

and the formal group law $F_{V,T}(x,y)$ at $p = 3$ equals

$$x + y$$

$$-V_1x^2y - 3\,T_1x^2y - V_1xy^2 - 3\,T_1xy^2$$

$$+{V_1}^2x^4y + 6\,T_1V_1x^4y + 9\,{T_1}^2x^4y + 18\,T_1V_1x^3y^2 + 27\,{T_1}^2x^3y^2 + 3\,{V_1}^2x^3y^2 + 3\,{V_1}^2x^2y^3 + 27\,{T_1}^2x^2y^3 + 18\,T_1V_1x^2y^3 + {V_1}^2xy^4 + 9\,{T_1}^2xy^4 + 6\,T_1V_1xy^4$$

$$-27\,{T_1}^3x^6y - 9\,T_1{V_1}^2x^6y - {V_1}^3x^6y - 27\,{T_1}^2V_1x^6y - 6\,{V_1}^3x^5y^2 - 54\,T_1{V_1}^2x^5y^2 - 162\,{T_1}^2V_1x^5y^2 - 162\,{T_1}^3x^5y^2 - 117\,T_1{V_1}^2x^4y^3 - 351\,{T_1}^3x^4y^3 - 351\,{T_1}^2V_1x^4y^3 - 13\,{V_1}^3x^4y^3 - 351\,{T_1}^2V_1x^3y^4 - 351\,{T_1}^3x^3y^4 - 117\,T_1{V_1}^2x^3y^4 - 13\,{V_1}^3x^3y^4 - 54\,T_1{V_1}^2x^2y^5 - 6\,{V_1}^3x^2y^5 - 162\,{T_1}^3x^2y^5 - 162\,{T_1}^2V_1x^2y^5 - {V_1}^3xy^6 - 27\,{T_1}^3xy^6 - 9\,T_1{V_1}^2xy^6 - 27\,{T_1}^2V_1xy^6$$

$$105\,V_1{T_1}^3x^8y + 54\,{T_1}^2{V_1}^2x^8y + 12\,T_1{V_1}^3x^8y - 3\,V_2x^8y - 9\,T_2x^8y + 81\,{T_1}^4x^8y + 1068\,V_1{T_1}^3x^7y^2 + 6\,{V_1}^4x^7y^2 - 36\,T_2x^7y^2 + 120\,T_1{V_1}^3x^7y^2 + 810\,{T_1}^4x^7y^2 - 12\,V_2x^7y^2 + 540\,{T_1}^2{V_1}^2x^7y^2 + 436\,T_1{V_1}^3x^6y^3 + 1962\,{T_1}^2{V_1}^2x^6y^3 + 27\,{V_1}^4x^6y^3 + 3896\,V_1{T_1}^3x^6y^3 - 84\,T_2x^6y^3 - 28\,V_2x^6y^3 + 2943\,{T_1}^4x^6y^3 - 126\,T_2x^5y^4 + 792\,T_1{V_1}^3x^5y^4 - 42\,V_2x^5y^4 + 3564\,{T_1}^2{V_1}^2x^5y^4 + 52\,{V_1}^4x^5y^4 + 7086\,V_1{T_1}^3x^5y^4 + 5346\,{T_1}^4x^5y^4 + 792\,T_1{V_1}^3x^4y^5 - 126\,T_2x^4y^5 - 42\,V_2x^4y^5 + 3564\,{T_1}^2{V_1}^2x^4y^5 + 5346\,{T_1}^4x^4y^5 + 52\,{V_1}^4x^4y^5 + 7086\,V_1{T_1}^3x^4y^5 + 2943\,{T_1}^4x^3y^6 + 1962\,{T_1}^2{V_1}^2x^3y^6 - 28\,V_2x^3y^6 - 84\,T_2x^3y^6 + 436\,T_1{V_1}^3x^3y^6 + 3896\,V_1{T_1}^3x^3y^6 + 27\,{V_1}^4x^3y^6 + 6\,{V_1}^4x^2y^7 + 120\,T_1{V_1}^3x^2y^7 - 12\,V_2x^2y^7 + 810\,{T_1}^4x^2y^7 + 540\,{T_1}^2{V_1}^2x^2y^7 + 1068\,V_1{T_1}^3x^2y^7 - 36\,T_2x^2y^7 + 81\,{T_1}^4xy^8 + 12\,T_1{V_1}^3xy^8 - 3\,V_2xy^8 - 9\,T_2xy^8 + 54\,{T_1}^2{V_1}^2xy^8 + 105\,V_1{T_1}^3xy^8$$

Some values of the n-series for $F_{V,T}(x,y)$ at $p = 3$ are:

$$[2]_{VT}(x) = (2\,x + (-6\,T_1 - 2\,V_1)x^3 + (72\,{T_1}^2 + 48\,T_1V_1 + 8\,{V_1}^2)x^5 + (-1080\,{T_1}^3 - 1080\,{T_1}^2V_1 - 360\,T_1{V_1}^2 - 40\,{V_1}^3)x^7 + (18360\,{T_1}^4 + 24310\,V_1{T_1}^3 + 12240\,{T_1}^2{V_1}^2 + 2720\,T_1{V_1}^3 + 170\,{V_1}^4 - 510\,T_2 - 170\,V_2)x^9 + O(x^{11}))$$

$$[3]_{VT}(x) = (3\,x + (-24\,T_1 - 8\,V_1)x^3 + (648\,{T_1}^2 + 432\,T_1V_1 + 72\,{V_1}^2)x^5 + (-22680\,{T_1}^3 - 22680\,{T_1}^2V_1 - 7560\,T_1{V_1}^2 - 840\,{V_1}^3)x^7 + (906120\,{T_1}^4 + 1201600\,V_1{T_1}^3 + 604080\,{T_1}^2{V_1}^2 + 134240\,T_1{V_1}^3 + 9000\,{V_1}^4 - 19680\,T_2 - 6560\,V_2)x^9 + O(x^{11}))$$

$$[4]_{VT}(x) = (4\,x + (-60\,T_1 - 20\,V_1)x^3 + (2880\,{T_1}^2 + 1920\,T_1V_1 + 320\,{V_1}^2)x^5 + (-181440\,{T_1}^3 - 181440\,{T_1}^2V_1 - 60480\,T_1{V_1}^2 - 6720\,{V_1}^3)x^7 + (13072320\,{T_1}^4 + 17342380\,V_1{T_1}^3 + 8714880\,{T_1}^2{V_1}^2 + 1936640\,T_1{V_1}^3 + 132260\,{V_1}^4 - 262140\,T_2 - 87380\,V_2)x^9 + O(x^{11}))$$

$$[5]_{VT}(x) = (5\,x + (-120\,T_1 - 40\,V_1)x^3 + (9000\,{T_1}^2 + 6000\,T_1V_1 + 1000\,{V_1}^2)x^5 + (-891000\,{T_1}^3 - 891000\,{T_1}^2V_1 - 297000\,T_1{V_1}^2 - 33000\,{V_1}^3)x^7 + (100953000\,{T_1}^4 + 133952960\,V_1{T_1}^3 + 67302000\,{T_1}^2{V_1}^2 + 14956000\,T_1{V_1}^3 + 1029320\,{V_1}^4 - 1953120\,T_2 - 651040\,V_2)x^9 + O(x^{11}))$$

$$[6]_{VT}(x) = (6\,x + (-210\,T_1 - 70\,V_1)x^3 + (22680\,{T_1}^2 + 15120\,T_1V_1 + 2520\,{V_1}^2)x^5 + (-3243240\,{T_1}^3 - 3243240\,{T_1}^2V_1 - 1081080\,T_1{V_1}^2 - 120120\,{V_1}^3)x^7 + (530991720\,{T_1}^4 + 704629730\,V_1{T_1}^3 + 353994480\,{T_1}^2{V_1}^2 + 78665440\,T_1{V_1}^3 + 5435710\,{V_1}^4 - 10077690\,T_2 - 3359230\,V_2)x^9 + O(x^{11}))$$

$$[7]_{VT}(x) = (7\,x + (-336\,T_1 - 112\,V_1)x^3 + (49392\,{T_1}^2 + 32928\,T_1V_1 + 5488\,{V_1}^2)x^5 + (-9631440\,{T_1}^3 - 9631440\,{T_1}^2V_1 - 3210480\,T_1{V_1}^2 - 356720\,{V_1}^3)x^7 + (2150774640\,{T_1}^4 + 2854248320\,V_1{T_1}^3 + 1433849760\,{T_1}^2{V_1}^2 + 318633280\,T_1{V_1}^3 + 22069040\,{V_1}^4 - 40353600\,T_2 - 13451200\,V_2)x^9 + O(x^{11}))$$

$$[8]_{VT}(x) = (8\,x + (-504\,T_1 - 168\,V_1)x^3 + (96768\,{T_1}^2 + 64512\,T_1V_1 + 10752\,{V_1}^2)x^5 + (-24675840\,{T_1}^3 - 24675840\,{T_1}^2V_1 - 8225280\,T_1{V_1}^2 - 913920\,{V_1}^3)x^7 + (7206796800\,{T_1}^4 + 9564323160\,V_1{T_1}^3 + 4804531200\,{T_1}^2{V_1}^2 + 1067673600\,T_1{V_1}^3 + 74059720\,{V_1}^4 - 134217720\,T_2 - 44739240\,V_2)x^9 + O(x^{11}))$$

$$[9]_{VT}(x) = (9\,x + (-720\,T_1 - 240\,V_1)x^3 + (174960\,{T_1}^2 + 116640\,T_1V_1 + 19440\,{V_1}^2)x^5 + (-56512080\,{T_1}^3 - 56512080\,{T_1}^2V_1 - 18837360\,T_1{V_1}^2 - 2093040\,{V_1}^3)x^7 + (20908128240\,{T_1}^4 + 27748364160\,V_1{T_1}^3 + 13938752160\,{T_1}^2{V_1}^2 + 3097500480\,T_1{V_1}^3 + 215078320\,{V_1}^4 - 387420480\,T_2 - 129140160\,V_2)x^9 + O(x^{11}))$$

8.7. $F_{W,T}(x,y)$ **at** $p=3$ **over** $\mathbb{Z}_{(3)}[W;T]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> lambda:=(p,n)->expand(add(lambda(p,i)*w[n-i]^(p^i),
  i=0..(n-1))/(p-p^(p^n)));
> w[0]:=3:
> lambda(3,0):=1:
> lambda(3,1);
> lambda(3,2);
> unassign('w');
> F_WT:=proc(p,d)
> local tot,C,t,f_WT,logWT,expWT,e_WT,F_WT,w;
> tot:=evalf(1+ceil(log(d-1)/log(p)));
> # print(tot); # the evalf above is necessary!!!
> w[0]:=p: lambda(p,0):=1:
  # some initial values for the recursion
> C[0]:=1: t[0]:=1:
> f_WT:=x->add( (add(lambda(p,j)*t[i-j]^(p^j),
  j=0..i))*x^(p^i), i=0..tot);
> print(f_WT(x));
> latex(f_WT(x));
> logWT:=powpoly(f_WT(x),x);
> expWT:=reversion(logWT);
> e_WT:=x->convert(simplify(tpsform(expWT,x,d+2)),
  polynom);
> F_WT:=(x,y)->sort(simplify(mtaylor(subs(
  z=f_WT(x)+f_WT(y),e_WT(z)),[x,y],d+1)), [x,y]);
> print(F_WT(x,y));
> latex(F_WT(x,y));
> end proc:
> F_WT(3,10);
```

The results of these computations are that the logarithm $\log_{W,T}(x)$ at $p=3$ equals

$$x+(t_1-1/24\,w_1)x^3+(t_2-1/24\,w_1{t_1}^3-\tfrac{1}{19680}\,w_2+\tfrac{1}{472320}\,{w_1}^4)x^9+(t_3-1/24\,w_1t_2{}^3+(-\tfrac{1}{19680}\,w_2+\tfrac{1}{472320}\,{w_1}^4){t_1}^9-\tfrac{1}{7625597484984}\,w_3+\tfrac{1}{183014339639616}\,w_1{w_2}^3+\tfrac{1}{150071758504485120}\,{w_1}^9w_2-\tfrac{1}{3601722204107642880}\,{w_1}^{13})x^{27}$$

and the formal group law $F_{W,T}(x,y)$ at $p=3$ equals

$$x+y$$

$$+1/8\,w_1x^2y-3\,t_1x^2y+1/8\,w_1xy^2-3\,t_1xy^2$$

$$+\tfrac{1}{64}\,{w_1}^2x^4y+9\,{t_1}^2x^4y-3/4\,t_1w_1x^4y-9/4\,t_1w_1x^3y^2+27\,{t_1}^2x^3y^2+\tfrac{3}{64}\,{w_1}^2x^3y^2-9/4\,t_1w_1x^2y^3+\tfrac{3}{64}\,{w_1}^2x^2y^3+27\,{t_1}^2x^2y^3+9\,{t_1}^2xy^4-3/4\,t_1w_1xy^4+\tfrac{1}{64}\,{w_1}^2xy^4$$

$$-\tfrac{9}{64}\,t_1{w_1}^2x^6y+\tfrac{27}{8}\,{t_1}^2w_1x^6y+\tfrac{1}{512}\,{w_1}^3x^6y-27\,{t_1}^3x^6y+\tfrac{81}{4}\,{t_1}^2w_1x^5y^2-162\,{t_1}^3x^5y^2+\tfrac{3}{256}\,{w_1}^3x^5y^2-\tfrac{27}{32}\,t_1{w_1}^2x^5y^2+\tfrac{13}{512}\,{w_1}^3x^4y^3-\tfrac{117}{64}\,t_1{w_1}^2x^4y^3+\tfrac{351}{8}\,{t_1}^2w_1x^4y^3-351\,{t_1}^3x^4y^3-351\,{t_1}^3x^3y^4+\tfrac{351}{8}\,{t_1}^2w_1x^3y^4+\tfrac{13}{512}\,{w_1}^3x^3y^4-\tfrac{117}{64}\,t_1{w_1}^2x^3y^4-\tfrac{27}{32}\,t_1{w_1}^2x^2y^5+\tfrac{3}{256}\,{w_1}^3x^2y^5-162\,{t_1}^3x^2y^5+\tfrac{81}{4}\,{t_1}^2w_1x^2y^5+\tfrac{1}{512}\,{w_1}^3xy^6+\tfrac{27}{8}\,{t_1}^2w_1xy^6-\tfrac{9}{64}\,t_1{w_1}^2xy^6-27\,{t_1}^3xy^6$$

$$\tfrac{27}{32}\,{t_1}^2{w_1}^2x^8y-\tfrac{3}{128}\,t_1{w_1}^3x^8y-9\,t_2x^8y-\tfrac{105}{8}\,w_1{t_1}^3x^8y+\tfrac{3}{6560}\,w_2x^8y+81\,{t_1}^4x^8y+\tfrac{189}{839680}\,{w_1}^4x^8y+\tfrac{993}{419840}\,{w_1}^4x^7y^2+810\,{t_1}^4x^7y^2-\tfrac{15}{64}\,t_1{w_1}^3x^7y^2-36\,t_2x^7y^2+\tfrac{3}{1640}\,w_2x^7y^2-\tfrac{267}{2}\,w_1{t_1}^3x^7y^2+\tfrac{135}{16}\,{t_1}^2{w_1}^2x^7y^2-487\,w_1{t_1}^3x^6y^3+\tfrac{981}{32}\,{t_1}^2{w_1}^2x^6y^3+\tfrac{7}{1640}\,w_2x^6y^3-84\,t_2x^6y^3+\tfrac{7299}{839680}\,{w_1}^4x^6y^3-\tfrac{109}{128}\,t_1{w_1}^3x^6y^3+2943\,{t_1}^4x^6y^3+5346\,{t_1}^4x^5y^4+\tfrac{21}{3280}\,w_2x^5y^4+\tfrac{891}{16}\,{t_1}^2{w_1}^2x^5y^4+\tfrac{6653}{419840}\,{w_1}^4x^5y^4-126\,t_2x^5y^4-\tfrac{3543}{4}\,w_1{t_1}^3x^5y^4-\tfrac{99}{64}\,t_1{w_1}^3x^5y^4+5346\,{t_1}^4x^4y^5-\tfrac{3543}{4}\,w_1{t_1}^3x^4y^5+\tfrac{21}{3280}\,w_2x^4y^5-\tfrac{99}{64}\,t_1{w_1}^3x^4y^5+\tfrac{6653}{419840}\,{w_1}^4x^4y^5+\tfrac{891}{16}\,{t_1}^2{w_1}^2x^4y^5-126\,t_2x^4y^5+\tfrac{7299}{839680}\,{w_1}^4x^3y^6+2943\,{t_1}^4x^3y^6-487\,w_1{t_1}^3x^3y^6-84\,t_2x^3y^6-\tfrac{109}{128}\,t_1{w_1}^3x^3y^6+\tfrac{7}{1640}\,w_2x^3y^6+\tfrac{981}{32}\,{t_1}^2{w_1}^2x^3y^6+\tfrac{993}{419840}\,{w_1}^4x^2y^7-36\,t_2x^2y^7+810\,{t_1}^4x^2y^7-\tfrac{15}{64}\,t_1{w_1}^3x^2y^7+\tfrac{135}{16}\,{t_1}^2{w_1}^2x^2y^7+\tfrac{3}{1640}\,w_2x^2y^7-\tfrac{267}{2}\,w_1{t_1}^3x^2y^7+\tfrac{27}{32}\,{t_1}^2{w_1}^2xy^8+\tfrac{3}{6560}\,w_2xy^8+81\,{t_1}^4xy^8-\tfrac{105}{8}\,w_1{t_1}^3xy^8-9\,t_2xy^8+\tfrac{189}{839680}\,{w_1}^4xy^8-\tfrac{3}{128}\,t_1{w_1}^3xy^8$$

Some values of the n-series for $F_{W,T}(x,y)$ at $p=3$ are:

Omitted.

8.8. $F_{E(2)}(x,y)$ **at** $p=3$ **over** $\mathbb{Z}_{(3)}[w_1,w_2,\ldots,w_n]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> n:=2: # n is the height of the fgl
> lambda[0]:=1:
> w[0]:=p:
> L:=(m,n)->{ seq(p*lambda[j]=add(
  lambda[i]*w[j-i]^(p^i),i=0..j),j=m..n) };
> # the inputs m and n are the lower and upper
  # bounds for the subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> subs({seq(w[i]=0,i=n+1..6)},%);
> assign(expand(%));
> p:=3:
> m:=27: # calculate to O(m+1)
> q:=4: # the number of lambda_i's in the logarithm
  # so we know the logarithm to degree x^(p^q)
> f_En:=x->sum(lambda[i]*x^(p^i),i=0..q);
> f_En(x); # Johnson-Wilson Theory
> latex(%);
> log_En:=powpoly(f_En(x),x);
> exp_En:=reversion(log_En);
> simplify(tpsform(exp_En,x,m+1));
> latex(%);
> e_En:=x->convert(simplify(tpsform(exp_En,x,m+1)),
  polynom);
> F_En:=(x,y)->sort(simplify(mtaylor(subs(
  z=f_En(x)+f_En(y),e_En(z)),[x,y],m+1)),[x,y]);
> F_En(x,y);
```

The results of these computations are that the logarithm $\log_{E(2)}(x)$ at $p=3$ equals

$$x - 1/24\, w_1 x^3 + (-\tfrac{1}{19680}\, w_2 + \tfrac{1}{472320}\, {w_1}^4)x^9 + (\tfrac{1}{150071758504485120}\, {w_1}^9 w_2 + \tfrac{1}{183014339639616}\, w_1 {w_2}^3 - \tfrac{1}{3601722204107642880}\, {w_1}^{13})x^{27} + (\tfrac{1}{872663328862298331258155273058486989030400 0}\, {w_2}^{10} - \tfrac{1}{2094391989269515995019572655340368773672960 00}\, {w_2}^9 {w_1}^4 - \tfrac{1}{665457928581010745290008896267415615708650503671951360 00}\, {w_1}^{36} w_2 - \tfrac{1}{811534059245135055231718166179775141108110370331648 00}\, {w_1}^{28} {w_2}^3 + \tfrac{1}{159709902859442578869602135104179747770076120881268326400 0}\, {w_1}^{40})x^{81}$$

and the formal group law $F_{E(2)}(x,y)$ at $p=3$ equals

$$x+y$$
$$+1/8\, w_1 x^2 y + 1/8\, w_1 x y^2$$
$$+\tfrac{1}{64}\, {w_1}^2 x^4 y + \tfrac{3}{64}\, {w_1}^2 x^3 y^2 + \tfrac{3}{64}\, {w_1}^2 x^2 y^3 + \tfrac{1}{64}\, {w_1}^2 x y^4$$

$$+\tfrac{1}{512}\, {w_1}^3 x^6 y + \tfrac{3}{256}\, {w_1}^3 x^5 y^2 + \tfrac{13}{512}\, {w_1}^3 x^4 y^3 + \tfrac{13}{512}\, {w_1}^3 x^3 y^4 + \tfrac{3}{256}\, {w_1}^3 x^2 y^5 + \tfrac{1}{512}\, {w_1}^3 x y^6$$
$$+\tfrac{3}{6560}\, w_2 x^8 y + \tfrac{189}{839680}\, {w_1}^4 x^8 y + \tfrac{993}{419840}\, {w_1}^4 x^7 y^2 + \tfrac{3}{1640}\, w_2 x^7 y^2 + \tfrac{7}{1640}\, w_2 x^6 y^3 + \tfrac{7299}{839680}\, {w_1}^4 x^6 y^3 + \tfrac{6653}{419840}\, {w_1}^4 x^5 y^4 + \tfrac{21}{3280}\, w_2 x^5 y^4 + \tfrac{6653}{419840}\, {w_1}^4 x^4 y^5 + \tfrac{21}{3280}\, w_2 x^4 y^5 + \tfrac{7299}{839680}\, {w_1}^4 x^3 y^6 + \tfrac{7}{1640}\, w_2 x^3 y^6 + \tfrac{993}{419840}\, {w_1}^4 x^2 y^7 + \tfrac{3}{1640}\, w_2 x^2 y^7 + \tfrac{3}{6560}\, w_2 x y^8 + \tfrac{189}{839680}\, {w_1}^4 x y^8$$
$$+\tfrac{173}{6717440}\, {w_1}^5 x^{10} y + \tfrac{3}{26240}\, w_1 w_2 x^{10} y + \tfrac{9}{10496}\, w_1 w_2 x^9 y^2 + \tfrac{567}{1343488}\, {w_1}^5 x^9 y^2 + \tfrac{3951}{1679360}\, {w_1}^5 x^8 y^3 + \tfrac{163}{52480}\, w_1 w_2 x^8 y^3 + \tfrac{5567}{839680}\, {w_1}^5 x^7 y^4 + \tfrac{181}{26240}\, w_1 w_2 x^7 y^4 + \tfrac{18219}{1679360}\, {w_1}^5 x^6 y^5 + \tfrac{133}{13120}\, w_1 w_2 x^6 y^5 + \tfrac{133}{13120}\, w_1 w_2 x^5 y^6 + \tfrac{18219}{1679360}\, {w_1}^5 x^5 y^6 + \tfrac{5567}{839680}\, {w_1}^5 x^4 y^7 + \tfrac{181}{26240}\, w_1 w_2 x^4 y^7 + \tfrac{3951}{1679360}\, {w_1}^5 x^3 y^8 + \tfrac{163}{52480}\, w_1 w_2 x^3 y^8 + \tfrac{567}{1343488}\, {w_1}^5 x^2 y^9 + \tfrac{9}{10496}\, w_1 w_2 x^2 y^9 + \tfrac{173}{6717440}\, {w_1}^5 x y^{10} + \tfrac{3}{26240}\, w_1 w_2 x y^{10}$$
$$+\tfrac{9}{419840}\, {w_1}^2 w_2 x^{12} y + \tfrac{157}{53739520}\, {w_1}^6 x^{12} y + \tfrac{27}{104960}\, {w_1}^2 w_2 x^{11} y^2 + \tfrac{3729}{53739520}\, {w_1}^6 x^{11} y^2 + \tfrac{29429}{53739520}\, {w_1}^6 x^{10} y^3 + \tfrac{71}{52480}\, {w_1}^2 w_2 x^{10} y^3 + \tfrac{5883}{2686976}\, {w_1}^6 x^9 y^4 + \tfrac{177}{41984}\, {w_1}^2 w_2 x^9 y^4 + \tfrac{279561}{53739520}\, {w_1}^6 x^8 y^5 + \tfrac{3637}{419840}\, {w_1}^2 w_2 x^8 y^5 + \tfrac{53069}{6717440}\, {w_1}^6 x^7 y^6 + \tfrac{1291}{104960}\, {w_1}^2 w_2 x^7 y^6 + \tfrac{1291}{104960}\, {w_1}^2 w_2 x^6 y^7 + \tfrac{53069}{6717440}\, {w_1}^6 x^6 y^7 + \tfrac{279561}{53739520}\, {w_1}^6 x^5 y^8 + \tfrac{3637}{419840}\, {w_1}^2 w_2 x^5 y^8 + \tfrac{5883}{2686976}\, {w_1}^6 x^4 y^9 + \tfrac{177}{41984}\, {w_1}^2 w_2 x^4 y^9 + \tfrac{71}{52480}\, {w_1}^2 w_2 x^3 y^{10} + \tfrac{29429}{53739520}\, {w_1}^6 x^3 y^{10} + \tfrac{3729}{53739520}\, {w_1}^6 x^2 y^{11} + \tfrac{27}{104960}\, {w_1}^2 w_2 x^2 y^{11} + \tfrac{157}{53739520}\, {w_1}^6 x y^{12} + \tfrac{9}{419840}\, {w_1}^2 w_2 x y^{12}$$
$$+\tfrac{141}{429916160}\, {w_1}^7 x^{14} y + \tfrac{3}{839680}\, {w_1}^3 w_2 x^{14} y + \tfrac{21}{335872}\, {w_1}^3 w_2 x^{13} y^2 + \tfrac{231}{21495808}\, {w_1}^7 x^{13} y^2 + \tfrac{1201}{10485760}\, {w_1}^7 x^{12} y^3 + \tfrac{37}{81920}\, {w_1}^3 w_2 x^{12} y^3 + \tfrac{517}{839680}\, {w_1}^7 x^{11} y^4 + \tfrac{6333}{3358720}\, {w_1}^3 w_2 x^{11} y^4 + \tfrac{1735}{335872}\, {w_1}^3 w_2 x^{10} y^5 + \tfrac{85361}{42991616}\, {w_1}^7 x^{10} y^5 + \tfrac{1798171}{429916160}\, {w_1}^7 x^9 y^6 + \tfrac{33137}{3358720}\, {w_1}^3 w_2 x^9 y^6 + \tfrac{45493}{3358720}\, {w_1}^3 w_2 x^8 y^7 + \tfrac{2585209}{429916160}\, {w_1}^7 x^8 y^7 + \tfrac{2585209}{429916160}\, {w_1}^7 x^7 y^8 + \tfrac{45493}{3358720}\, {w_1}^3 w_2 x^7 y^8 + \tfrac{1798171}{429916160}\, {w_1}^7 x^6 y^9 + \tfrac{33137}{3358720}\, {w_1}^3 w_2 x^6 y^9 + \tfrac{85361}{42991616}\, {w_1}^7 x^5 y^{10} + \tfrac{1735}{335872}\, {w_1}^3 w_2 x^5 y^{10} + \tfrac{6333}{3358720}\, {w_1}^3 w_2 x^4 y^{11} + \tfrac{517}{839680}\, {w_1}^7 x^4 y^{11} + \tfrac{1201}{10485760}\, {w_1}^7 x^3 y^{12} + \tfrac{37}{81920}\, {w_1}^3 w_2 x^3 y^{12} + \tfrac{231}{21495808}\, {w_1}^7 x^2 y^{13} + \tfrac{21}{335872}\, {w_1}^3 w_2 x^2 y^{13} + \tfrac{3}{839680}\, {w_1}^3 w_2 x y^{14} + \tfrac{141}{429916160}\, {w_1}^7 x y^{14}$$
$$+\tfrac{25881}{705062502400}\, {w_1}^8 x^{16} y + \tfrac{2979}{5508300800}\, {w_1}^4 w_2 x^{16} y + \tfrac{9}{43033600}\, {w_2}^2 x^{16} y + \tfrac{27}{10758400}\, {w_2}^2 x^{15} y^2 + \tfrac{280593}{176265625600}\, {w_1}^8 x^{15} y^2 + \tfrac{9081}{688537600}\, {w_1}^4 w_2 x^{15} y^2 + \tfrac{39}{2689600}\, {w_2}^2 x^{14} y^3 + \tfrac{15589481}{705062502400}\, {w_1}^8 x^{14} y^3 + \tfrac{347837}{2754150400}\, {w_1}^4 w_2 x^{14} y^3 + \tfrac{231}{4303360}\, {w_2}^2 x^{13} y^4 + \tfrac{678209}{4406640640}\, {w_1}^8 x^{13} y^4 + \tfrac{47047}{68853760}\, {w_1}^4 w_2 x^{13} y^4 + \tfrac{1533}{10758400}\, {w_2}^2 x^{12} y^5 + \tfrac{6634921}{2754150400}\, {w_1}^4 w_2 x^{12} y^5 + \tfrac{227224819}{352531251200}\, {w_1}^8 x^{12} y^5 + \tfrac{3087}{10758400}\, {w_2}^2 x^{11} y^6 + \tfrac{1257218737}{705062502400}\, {w_1}^8 x^{11} y^6 + \tfrac{4091531}{688537600}\, {w_1}^4 w_2 x^{11} y^6 + \tfrac{5872809}{550830080}\, {w_1}^4 w_2 x^{10} y^7 + \tfrac{242029301}{70506250240}\, {w_1}^8 x^{10} y^7 + \tfrac{243}{537920}\, {w_2}^2 x^{10} y^7 + \tfrac{24309}{43033600}\, {w_2}^2 x^9 y^8 + \tfrac{3336593521}{705062502400}\, {w_1}^8 x^9 y^8 + \tfrac{78290759}{5508300800}\, {w_1}^4 w_2 x^9 y^8 + \tfrac{78290759}{5508300800}\, {w_1}^4 w_2 x^8 y^9 + \tfrac{24309}{43033600}\, {w_2}^2 x^8 y^9 + \tfrac{3336593521}{705062502400}\, {w_1}^8 x^8 y^9 + \tfrac{242029301}{70506250240}\, {w_1}^8 x^7 y^{10} + \tfrac{5872809}{550830080}\, {w_1}^4 w_2 x^7 y^{10} + \tfrac{243}{537920}\, {w_2}^2 x^7 y^{10} + \tfrac{3087}{10758400}\, {w_2}^2 x^6 y^{11} + \tfrac{1257218737}{705062502400}\, {w_1}^8 x^6 y^{11} + \tfrac{4091531}{688537600}\, {w_1}^4 w_2 x^6 y^{11} + \tfrac{1533}{10758400}\, {w_2}^2 x^5 y^{12} + \tfrac{227224819}{352531251200}\, {w_1}^8 x^5 y^{12} + \tfrac{6634921}{2754150400}\, {w_1}^4 w_2 x^5 y^{12} + \tfrac{47047}{68853760}\, {w_1}^4 w_2 x^4 y^{13} + \tfrac{231}{4303360}\, {w_2}^2 x^4 y^{13} + \tfrac{678209}{4406640640}\, {w_1}^8 x^4 y^{13} + \tfrac{15589481}{705062502400}\, {w_1}^8 x^3 y^{14} + \tfrac{347837}{2754150400}\, {w_1}^4 w_2 x^3 y^{14} + \tfrac{39}{2689600}\, {w_2}^2 x^3 y^{14} + \tfrac{27}{10758400}\, {w_2}^2 x^2 y^{15} + \tfrac{280593}{176265625600}\, {w_1}^8 x^2 y^{15} + \tfrac{9081}{688537600}\, {w_1}^4 w_2 x^2 y^{15} + \tfrac{2979}{5508300800}\, {w_1}^4 w_2 x y^{16} + \tfrac{9}{43033600}\, {w_2}^2 x y^{16} + \tfrac{25881}{705062502400}\, {w_1}^8 x y^{16}$$
$$+\tfrac{27}{344268800}\, w_1 {w_2}^2 x^{18} y + \tfrac{1701}{22033203200}\, {w_1}^5 w_2 x^{18} y + \tfrac{23113}{5640500019200}\, {w_1}^9 x^{18} y + \tfrac{243}{172134400}\, w_1 {w_2}^2 x^{17} y^2 + \tfrac{1285029}{5640500019200}\, {w_1}^9 x^{17} y^2 + \tfrac{111051}{44066406400}\, {w_1}^5 w_2 x^{17} y^2 + \tfrac{3867}{344268800}\, w_1 {w_2}^2 x^{16} y^3 + \tfrac{1369767}{44066406400}\, {w_1}^5 w_2 x^{16} y^3 + \tfrac{1413653}{352531251200}\, {w_1}^9 x^{16} y^3 + \tfrac{49542783}{1410125004800}\, {w_1}^9 x^{15} y^4 + \tfrac{4707}{86067200}\, w_1 {w_2}^2 x^{15} y^4 + \tfrac{1169841}{5508300800}\, {w_1}^5 w_2 x^{15} y^4 + \tfrac{3993}{21516800}\, w_1 {w_2}^2 x^{14} y^5 + \tfrac{20669099}{22033203200}\, {w_1}^5 w_2 x^{14} y^5 + \tfrac{522214951}{2820250009600}\, {w_1}^9 x^{14} y^5 + \tfrac{3194373}{1101660160}\, {w_1}^5 w_2 x^{13} y^6 + \tfrac{4039}{8606720}\, w_1 {w_2}^2 x^{13} y^6 + \tfrac{365668037}{564050001920}\, {w_1}^9 x^{13} y^6 + \tfrac{79069}{86067200}\, w_1 {w_2}^2 x^{12} y^7 + \tfrac{1126129163}{705062502400}\, {w_1}^9 x^{12} y^7 + \tfrac{144581173}{22033203200}\, {w_1}^5 w_2 x^{12} y^7 + \tfrac{4042054039}{1410125004800}\, {w_1}^9 x^{11} y^8 + \tfrac{245007}{172134400}\, w_1 {w_2}^2 x^{11} y^8 + \tfrac{492174319}{44066406400}\, {w_1}^5 w_2 x^{11} y^8 + \tfrac{10780550281}{2820250009600}\, {w_1}^9 x^{10} y^9 + \tfrac{639838853}{44066406400}\, {w_1}^5 w_2 x^{10} y^9 + \tfrac{304129}{172134400}\, w_1 {w_2}^2 x^{10} y^9 + \tfrac{10780550281}{2820250009600}\, {w_1}^9 x^9 y^{10} + \tfrac{639838853}{44066406400}\, {w_1}^5 w_2 x^9 y^{10} + \tfrac{304129}{172134400}\, w_1 {w_2}^2 x^9 y^{10} + \tfrac{245007}{172134400}\, w_1 {w_2}^2 x^8 y^{11} + \tfrac{4042054039}{1410125004800}\, {w_1}^9 x^8 y^{11} +$$

$$\frac{492174319}{44066406400}\,w_1{}^5w_2x^8y^{11}+\frac{79069}{86067200}\,w_1w_2{}^2x^7y^{12}+\frac{144581173}{22033203200}\,w_1{}^5w_2x^7y^{12}+\frac{1126129163}{705062502400}\,w_1{}^9x^7y^{12}+$$
$$\frac{4039}{8606720}\,w_1w_2{}^2x^6y^{13}+\frac{365668037}{564050001920}\,w_1{}^9x^6y^{13}+\frac{3194373}{1101660160}\,w_1{}^5w_2x^6y^{13}+\frac{20669099}{22033203200}\,w_1{}^5w_2x^5y^{14}+$$
$$\frac{522214951}{2820250009600}\,w_1{}^9x^5y^{14}+\frac{3993}{21516800}\,w_1w_2{}^2x^5y^{14}+\frac{1169841}{5508300800}\,w_1{}^5w_2x^4y^{15}+\frac{4707}{86067200}\,w_1w_2{}^2x^4y^{15}+$$
$$\frac{49542783}{1410125004800}\,w_1{}^9x^4y^{15}+\frac{1369767}{44066406400}\,w_1{}^5w_2x^3y^{16}+\frac{1413653}{352531251200}\,w_1{}^9x^3y^{16}+\frac{3867}{344268800}\,w_1w_2{}^2x^3y^{16}+$$
$$\frac{1285029}{5640500019200}\,w_1{}^9x^2y^{17}+\frac{111051}{44066406400}\,w_1{}^5w_2x^2y^{17}+\frac{243}{172134400}\,w_1w_2{}^2x^2y^{17}+\frac{1701}{22033203200}\,w_1{}^5w_2xy^{18}+$$
$$\frac{27}{344268800}\,w_1w_2{}^2xy^{18}+\frac{23113}{5640500019200}\,w_1{}^9xy^{18}$$

$$+\frac{3729}{352531251200}\,w_1{}^6w_2x^{20}y+\frac{27}{1377075200}\,w_1{}^2w_2{}^2x^{20}y+\frac{20601}{45124000153600}\,w_1{}^{10}x^{20}y+\frac{57255}{1804960006144}\,w_1{}^{10}x^{19}y^2+$$
$$\frac{789}{1762656256}\,w_1{}^6w_2x^{19}y^2+\frac{27}{55083008}\,w_1{}^2w_2{}^2x^{19}y^2+\frac{31212959}{45124000153600}\,w_1{}^{10}x^{18}y^3+\frac{14121}{2754150400}\,w_1{}^2w_2{}^2x^{18}y^3+$$
$$\frac{1224183}{176265625600}\,w_1{}^6w_2x^{18}y^3+\frac{10342863}{176265625600}\,w_1{}^6w_2x^{17}y^4+\frac{87561}{2754150400}\,w_1{}^2w_2{}^2x^{17}y^4+\frac{336642879}{45124000153600}\,w_1{}^{10}x^{17}y^4+$$
$$\frac{136260851}{2820250009600}\,w_1{}^{10}x^{16}y^5+\frac{14009073}{44066406400}\,w_1{}^6w_2x^{16}y^5+\frac{185427}{1377075200}\,w_1{}^2w_2{}^2x^{16}y^5+\frac{4701683993}{22562000076800}\,w_1{}^{10}x^{15}y^6+$$
$$\frac{53021683}{44066406400}\,w_1{}^6w_2x^{15}y^6+\frac{288921}{688537600}\,w_1{}^2w_2{}^2x^{15}y^6+\frac{589621049}{176265625600}\,w_1{}^6w_2x^{14}y^7+\frac{14363831151}{22562000076800}\,w_1{}^{10}x^{14}y^7+$$
$$\frac{172993}{172134400}\,w_1{}^2w_2{}^2x^{14}y^7+\frac{496857327}{70506250240}\,w_1{}^6w_2x^{13}y^8+\frac{1615234997}{1128100003840}\,w_1{}^{10}x^{13}y^8+\frac{209317}{110166016}\,w_1{}^2w_2{}^2x^{13}y^8+$$
$$\frac{7938873}{2754150400}\,w_1{}^2w_2{}^2x^{12}y^9+\frac{505501721}{44066406400}\,w_1{}^6w_2x^{12}y^9+\frac{856265899}{352531251200}\,w_1{}^{10}x^{12}y^9+\frac{2572869683}{176265625600}\,w_1{}^6w_2x^{11}y^{10}+$$
$$\frac{4878523}{1377075200}\,w_1{}^2w_2{}^2x^{11}y^{10}+\frac{71136117417}{22562000076800}\,w_1{}^{10}x^{11}y^{10}+\frac{4878523}{1377075200}\,w_1{}^2w_2{}^2x^{10}y^{11}+\frac{71136117417}{22562000076800}\,w_1{}^{10}x^{10}y^{11}+$$
$$\frac{2572869683}{176265625600}\,w_1{}^6w_2x^{10}y^{11}+\frac{856265899}{352531251200}\,w_1{}^{10}x^9y^{12}+\frac{505501721}{44066406400}\,w_1{}^6w_2x^9y^{12}+\frac{7938873}{2754150400}\,w_1{}^2w_2{}^2x^9y^{12}+$$
$$\frac{496857327}{70506250240}\,w_1{}^6w_2x^8y^{13}+\frac{1615234997}{1128100003840}\,w_1{}^{10}x^8y^{13}+\frac{209317}{110166016}\,w_1{}^2w_2{}^2x^8y^{13}+\frac{172993}{172134400}\,w_1{}^2w_2{}^2x^7y^{14}+$$
$$\frac{589621049}{176265625600}\,w_1{}^6w_2x^7y^{14}+\frac{14363831151}{22562000076800}\,w_1{}^{10}x^7y^{14}+\frac{4701683993}{22562000076800}\,w_1{}^{10}x^6y^{15}+\frac{53021683}{44066406400}\,w_1{}^6w_2x^6y^{15}+$$
$$\frac{288921}{688537600}\,w_1{}^2w_2{}^2x^6y^{15}+\frac{14009073}{44066406400}\,w_1{}^6w_2x^5y^{16}+\frac{136260851}{2820250009600}\,w_1{}^{10}x^5y^{16}+\frac{185427}{1377075200}\,w_1{}^2w_2{}^2x^5y^{16}+$$
$$\frac{336642879}{45124000153600}\,w_1{}^{10}x^4y^{17}+\frac{87561}{2754150400}\,w_1{}^2w_2{}^2x^4y^{17}+\frac{10342863}{176265625600}\,w_1{}^6w_2x^4y^{17}+\frac{31212959}{45124000153600}\,w_1{}^{10}x^3y^{18}+$$
$$\frac{14121}{2754150400}\,w_1{}^2w_2{}^2x^3y^{18}+\frac{1224183}{176265625600}\,w_1{}^6w_2x^3y^{18}+\frac{789}{1762656256}\,w_1{}^6w_2x^2y^{19}+\frac{27}{55083008}\,w_1{}^2w_2{}^2x^2y^{19}+$$
$$\frac{57255}{1804960006144}\,w_1{}^{10}x^2y^{19}+\frac{27}{1377075200}\,w_1{}^2w_2{}^2xy^{20}+\frac{3729}{352531251200}\,w_1{}^6w_2xy^{20}+\frac{20601}{45124000153600}\,w_1{}^{10}xy^{20}$$

$$+\frac{3669}{72198400245760}\,w_1{}^{11}x^{22}y+\frac{9}{2203320320}\,w_1{}^3w_2{}^2x^{22}y+\frac{99}{70506250240}\,w_1{}^7w_2x^{22}y+\frac{10593}{141012500480}\,w_1{}^7w_2x^{21}y^2+$$
$$\frac{297}{2203320320}\,w_1{}^3w_2{}^2x^{21}y^2+\frac{31185}{7219840024576}\,w_1{}^{11}x^{21}y^2+\frac{4054837}{2820250009600}\,w_1{}^7w_2x^{20}y^3+\frac{19731}{11016601600}\,w_1{}^3w_2{}^2x^{20}y^3+$$
$$\frac{41339853}{360992001228800}\,w_1{}^{11}x^{20}y^3+\frac{759}{55083008}\,w_1{}^3w_2{}^2x^{19}y^4+\frac{832681}{56405000192}\,w_1{}^7w_2x^{19}y^4+\frac{21560155}{14439680049152}\,w_1{}^{11}x^{19}y^4+$$
$$\frac{1052322839}{90248000307200}\,w_1{}^{11}x^{18}y^5+\frac{67991391}{705062502400}\,w_1{}^7w_2x^{18}y^5+\frac{785727}{11016601600}\,w_1{}^3w_2{}^2x^{18}y^5+\frac{2963547}{11016601600}\,w_1{}^3w_2{}^2x^{17}y^6+$$
$$\frac{21908832441}{360992001228800}\,w_1{}^{11}x^{17}y^6+\frac{1237589379}{2820250009600}\,w_1{}^7w_2x^{17}y^6+\frac{1708609}{2203320320}\,w_1{}^3w_2{}^2x^{16}y^7+\frac{51770091}{35253125120}\,w_1{}^7w_2x^{16}y^7+$$
$$\frac{4053795109}{180496000614400}\,w_1{}^{11}x^{16}y^7+\frac{5275191883}{1410125004800}\,w_1{}^7w_2x^{15}y^8+\frac{9699969}{5508300800}\,w_1{}^3w_2{}^2x^{15}y^8+\frac{6948734177}{11281000038400}\,w_1{}^{11}x^{15}y^8+$$
$$\frac{20925895259}{2820250009600}\,w_1{}^7w_2x^{14}y^9+\frac{17694651}{5508300800}\,w_1{}^3w_2{}^2x^{14}y^9+\frac{232250070233}{180496000614400}\,w_1{}^{11}x^{14}y^9+\frac{16396668349}{1410125004800}\,w_1{}^7w_2x^{13}y^{10}+$$
$$\frac{376170024831}{180496000614400}\,w_1{}^{11}x^{13}y^{10}+\frac{6564003}{1377075200}\,w_1{}^3w_2{}^2x^{13}y^{10}+\frac{15963783}{2754150400}\,w_1{}^3w_2{}^2x^{12}y^{11}+$$
$$\frac{40966206179}{2820250009600}\,w_1{}^7w_2x^{12}y^{11}+\frac{238760168259}{90248000307200}\,w_1{}^{11}x^{12}y^{11}+\frac{40966206179}{2820250009600}\,w_1{}^7w_2x^{11}y^{12}+$$
$$\frac{15963783}{2754150400}\,w_1{}^3w_2{}^2x^{11}y^{12}+\frac{238760168259}{90248000307200}\,w_1{}^{11}x^{11}y^{12}+\frac{6564003}{1377075200}\,w_1{}^3w_2{}^2x^{10}y^{13}+\frac{16396668349}{1410125004800}\,w_1{}^7w_2x^{10}y^{13}+$$
$$\frac{376170024831}{180496000614400}\,w_1{}^{11}x^{10}y^{13}+\frac{232250070233}{180496000614400}\,w_1{}^{11}x^9y^{14}+\frac{17694651}{5508300800}\,w_1{}^3w_2{}^2x^9y^{14}+\frac{20925895259}{2820250009600}\,w_1{}^7w_2x^9y^{14}+$$
$$\frac{5275191883}{1410125004800}\,w_1{}^7w_2x^8y^{15}+\frac{9699969}{5508300800}\,w_1{}^3w_2{}^2x^8y^{15}+\frac{6948734177}{11281000038400}\,w_1{}^{11}x^8y^{15}+\frac{4053795109}{180496000614400}\,w_1{}^{11}x^7y^{16}+$$
$$\frac{1708609}{2203320320}\,w_1{}^3w_2{}^2x^7y^{16}+\frac{51770091}{35253125120}\,w_1{}^7w_2x^7y^{16}+\frac{1237589379}{2820250009600}\,w_1{}^7w_2x^6y^{17}+\frac{21908832441}{360992001228800}\,w_1{}^{11}x^6y^{17}+$$
$$\frac{2963547}{11016601600}\,w_1{}^3w_2{}^2x^6y^{17}+\frac{785727}{11016601600}\,w_1{}^3w_2{}^2x^5y^{18}+\frac{67991391}{705062502400}\,w_1{}^7w_2x^5y^{18}+\frac{1052322839}{90248000307200}\,w_1{}^{11}x^5y^{18}+$$
$$\frac{21560155}{14439680049152}\,w_1{}^{11}x^4y^{19}+\frac{832681}{56405000192}\,w_1{}^7w_2x^4y^{19}+\frac{759}{55083008}\,w_1{}^3w_2{}^2x^4y^{19}+\frac{19731}{11016601600}\,w_1{}^3w_2{}^2x^3y^{20}+$$
$$\frac{41339853}{360992001228800}\,w_1{}^{11}x^3y^{20}+\frac{4054837}{2820250009600}\,w_1{}^7w_2x^3y^{20}+\frac{10593}{141012500480}\,w_1{}^7w_2x^2y^{21}+\frac{297}{2203320320}\,w_1{}^3w_2{}^2x^2y^{21}+$$
$$\frac{31185}{7219840024576}\,w_1{}^{11}x^2y^{21}+\frac{99}{70506250240}\,w_1{}^7w_2xy^{22}+\frac{9}{2203320320}\,w_1{}^3w_2{}^2xy^{22}+\frac{3669}{72198400245760}\,w_1{}^{11}xy^{22}$$

$$+\frac{841779}{46252100157440000}\,w_1{}^8w_2x^{24}y+\frac{3346629}{592026882015232000}\,w_1{}^{12}x^{24}y+\frac{27243}{36134453248000}\,w_1{}^4w_2{}^2x^{24}y+$$
$$\frac{27}{282300416000}\,w_2{}^3x^{24}y+\frac{81}{35287552000}\,w_2{}^3x^{23}y^2+\frac{170923923}{2960134410076160000}\,w_1{}^{12}x^{23}y^2+\frac{575991}{18067226624000}\,w_1{}^4w_2{}^2x^{23}y^2+$$

$$\frac{13934349}{1156302503936000}\,w_1{}^8w_2x^{23}y^2+\frac{16177491}{57815125196800}\,w_1{}^8w_2x^{22}y^3+\frac{1899861}{3613445324800}\,w_1{}^4w_2{}^2x^{22}y^3+$$
$$\frac{171}{7057510400}\,w_2{}^3x^{22}y^3+\frac{2169214331}{118405376403046400}\,w_1{}^{12}x^{22}y^3+\frac{3367845789}{11840537640304640}\,w_1{}^{12}x^{21}y^4+\frac{891}{5646008320}\,w_2{}^3x^{21}y^4+$$
$$\frac{31827631}{92504200314880}\,w_1{}^8w_2x^{21}y^4+\frac{111177}{22584033280}\,w_1{}^4w_2{}^2x^{21}y^4+\frac{390384658803}{148006720503808000}\,w_1{}^{12}x^{20}y^5+\frac{102753}{141150208000}\,w_2{}^3x^{20}y^5+$$
$$\frac{15445009139}{578151251968000}\,w_1{}^8w_2x^{20}y^5+\frac{553205877}{18067226624000}\,w_1{}^4w_2{}^2x^{20}y^5+\frac{2487063463}{18067226624000}\,w_1{}^4w_2{}^2x^{19}y^6+$$
$$\frac{45129}{17643776000}\,w_2{}^3x^{19}y^6+\frac{166512467007}{1156302503936000}\,w_1{}^8w_2x^{19}y^6+\frac{9648075035103}{592026882015232000}\,w_1{}^{12}x^{19}y^6+\frac{63069}{8821888000}\,w_2{}^3x^{18}y^7+$$
$$\frac{8505395811}{18067226624000}\,w_1{}^4w_2{}^2x^{18}y^7+\frac{165002124301}{289075625984000}\,w_1{}^8w_2x^{18}y^7+\frac{10617387585179}{148006720503808000}\,w_1{}^{12}x^{18}y^7+$$
$$\frac{9147581181}{7226890649600}\,w_1{}^4w_2{}^2x^{17}y^8+\frac{798621815889}{462521001574400}\,w_1{}^8w_2x^{17}y^8+\frac{922779}{56460083200}\,w_2{}^3x^{17}y^8+$$
$$\frac{434828947917}{1850084006297600}\,w_1{}^{12}x^{17}y^8+\frac{24710704227}{9033613312000}\,w_1{}^4w_2{}^2x^{16}y^9+\frac{349515498367149}{592026882015232000}\,w_1{}^{12}x^{16}y^9+$$
$$\frac{18904422291549}{4625210015744000}\,w_1{}^8w_2x^{16}y^9+\frac{4394031}{141150208000}\,w_2{}^3x^{16}y^9+\frac{1764897}{35287552000}\,w_2{}^3x^{15}y^{10}+\frac{343411443813751}{2960134410076160000}\,w_1{}^{12}x^{15}y^{10}+$$
$$\frac{4452197960419}{578151251968000}\,w_1{}^8w_2x^{15}y^{10}+\frac{87125029267}{18067226624000}\,w_1{}^4w_2{}^2x^{15}y^{10}+\frac{2411253}{35287552000}\,w_2{}^3x^{14}y^{11}+$$
$$\frac{535090163089249}{296013441007616000}\,w_1{}^{12}x^{14}y^{11}+\frac{3376339854403}{289075625984000}\,w_1{}^8w_2x^{14}y^{11}+\frac{126522847833}{18067226624000}\,w_1{}^4w_2{}^2x^{14}y^{11}+$$
$$\frac{563031}{7057510400}\,w_2{}^3x^{13}y^{12}+\frac{1660485393007}{115630250393600}\,w_1{}^8w_2x^{13}y^{12}+\frac{30450998781}{3613445324800}\,w_1{}^4w_2{}^2x^{13}y^{12}+$$
$$\frac{16665339017441}{7400336025190400}\,w_1{}^{12}x^{13}y^{12}+\frac{30450998781}{3613445324800}\,w_1{}^4w_2{}^2x^{12}y^{13}+\frac{1660485393007}{115630250393600}\,w_1{}^8w_2x^{12}y^{13}+$$
$$\frac{16665339017441}{7400336025190400}\,w_1{}^{12}x^{12}y^{13}+\frac{563031}{7057510400}\,w_2{}^3x^{12}y^{13}+\frac{126522847833}{18067226624000}\,w_1{}^4w_2{}^2x^{11}y^{14}+$$
$$\frac{3376339854403}{289075625984000}\,w_1{}^8w_2x^{11}y^{14}+\frac{535090163089249}{296013441007616000}\,w_1{}^{12}x^{11}y^{14}+\frac{2411253}{35287552000}\,w_2{}^3x^{11}y^{14}+\frac{1764897}{35287552000}\,w_2{}^3x^{10}y^{15}+$$
$$\frac{4452197960419}{578151251968000}\,w_1{}^8w_2x^{10}y^{15}+\frac{343411443813751}{296013441007616000}\,w_1{}^{12}x^{10}y^{15}+\frac{87125029267}{18067226624000}\,w_1{}^4w_2{}^2x^{10}y^{15}+$$
$$\frac{24710704227}{9033613312000}\,w_1{}^4w_2{}^2x^9y^{16}+\frac{18904422291549}{4625210015744000}\,w_1{}^8w_2x^9y^{16}+\frac{4394031}{141150208000}\,w_2{}^3x^9y^{16}+$$
$$\frac{349515498367149}{592026882015232000}\,w_1{}^{12}x^9y^{16}+\frac{434828947917}{185008400629760}\,w_1{}^{12}x^8y^{17}+\frac{9147581181}{7226890649600}\,w_1{}^4w_2{}^2x^8y^{17}+$$
$$\frac{798621815889}{462521001574400}\,w_1{}^8w_2x^8y^{17}+\frac{922779}{56460083200}\,w_2{}^3x^8y^{17}+\frac{8505395811}{18067226624000}\,w_1{}^4w_2{}^2x^7y^{18}+$$
$$\frac{165002124301}{289075625984000}\,w_1{}^8w_2x^7y^{18}+\frac{63069}{8821888000}\,w_2{}^3x^7y^{18}+\frac{10617387585179}{148006720503808000}\,w_1{}^{12}x^7y^{18}+$$
$$\frac{166512467007}{1156302503936000}\,w_1{}^8w_2x^6y^{19}+\frac{2487063463}{18067226624000}\,w_1{}^4w_2{}^2x^6y^{19}+\frac{45129}{17643776000}\,w_2{}^3x^6y^{19}+$$
$$\frac{9648075035103}{592026882015232000}\,w_1{}^{12}x^6y^{19}+\frac{553205877}{18067226624000}\,w_1{}^4w_2{}^2x^5y^{20}+\frac{15445009139}{578151251968000}\,w_1{}^8w_2x^5y^{20}+$$
$$\frac{390384658803}{148006720503808000}\,w_1{}^{12}x^5y^{20}+\frac{102753}{141150208000}\,w_2{}^3x^5y^{20}+\frac{3367845789}{11840537640304640}\,w_1{}^{12}x^4y^{21}+$$
$$\frac{111177}{22584033280}\,w_1{}^4w_2{}^2x^4y^{21}+\frac{891}{5646008320}\,w_2{}^3x^4y^{21}+\frac{318278631}{92504200314880}\,w_1{}^8w_2x^4y^{21}+\frac{1899861}{3613445324800}\,w_1{}^4w_2{}^2x^3y^{22}+$$
$$\frac{16177491}{57815125196800}\,w_1{}^8w_2x^3y^{22}+\frac{171}{7057510400}\,w_2{}^3x^3y^{22}+\frac{2169214331}{11840537640304640}\,w_1{}^{12}x^3y^{22}+\frac{81}{35287552000}\,w_2{}^3x^2y^{23}+$$
$$\frac{575991}{18067226624000}\,w_1{}^4w_2{}^2x^2y^{23}+\frac{13934349}{1156302503936000}\,w_1{}^8w_2x^2y^{23}+\frac{170923923}{2960134410076160000}\,w_1{}^{12}x^2y^{23}+$$
$$\frac{3346629}{592026882015232000}\,w_1{}^{12}xy^{24}+\frac{841779}{4625210015744000}\,w_1{}^8w_2xy^{24}+\frac{27243}{36134453248000}\,w_1{}^4w_2{}^2xy^{24}+\frac{27}{282300416000}\,w_2{}^3xy^{24}$$

$$\frac{136097746719183963}{5878331643930042240598016000}\,w_1{}^9w_2x^{26}y+\frac{8552331506607}{17939244518829474612000}\,w_1w_2{}^3x^{26}y+$$
$$\frac{945846228118686561}{150485290084609081359302096000}\,w_1{}^{13}x^{26}y+\frac{37017}{289075625984000}\,w_1{}^5w_2{}^2x^{26}y+$$
$$\frac{4381699990172026977}{2351332657572016896239206400}\,w_1{}^9w_2x^{25}y^2+\frac{22875935627577698991}{3009705801692181627186184192000}\,w_1{}^{13}x^{25}y^2+$$
$$\frac{111386741765091}{7175697807531789844480}\,w_1w_2{}^3x^{25}y^2+\frac{97929}{14453781299200}\,w_1{}^5w_2{}^2x^{25}y^2+\frac{1071083807072638410023}{3762132252115227033982730240000}\,w_1{}^{13}x^{24}y^3+$$
$$\frac{39367539}{289075625984000}\,w_1{}^5w_2{}^2x^{24}y^3+\frac{15141546947948831}{7175697807531789844480000}\,w_1w_2{}^3x^{24}y^3+$$
$$\frac{6083773181964095661807}{1175666328786008448196032000}\,w_1{}^9w_2x^{24}y^3+\frac{55212489}{36134453248000}\,w_1{}^5w_2{}^2x^{23}y^4+$$
$$\frac{614498339585840369}{3587848903765894922240400}\,w_1w_2{}^3x^{23}y^4+\frac{442318169565321597213}{5878331643930042240598016000}\,w_1{}^9w_2x^{23}y^4+$$
$$\frac{19549002072374311637169}{3762132252115227033982730240000}\,w_1{}^{13}x^{23}y^4+\frac{1627962309}{14453781292000}\,w_1{}^5w_2{}^2x^{22}y^5+$$
$$\frac{863231849488820669}{8969622259414737305600}\,w_1w_2{}^3x^{22}y^5+\frac{2016408655807304297213 1}{2939165821965021120299008000}\,w_1{}^9w_2x^{22}y^5+$$
$$\frac{4250225566510811750737 67}{7524264504230454067965460480000}\,w_1{}^{13}x^{22}y^5+\frac{254347156936194539656483}{587833164393004224059801600 0}\,w_1{}^9w_2x^{21}y^6+$$
$$\frac{8611797111}{144537812992000}\,w_1{}^5w_2{}^2x^{21}y^6+\frac{307556031006368724462666 3}{7524264504230454067965460480000}\,w_1{}^{13}x^{21}y^6+\frac{36345008453367648 1}{896962225941473730560 00}\,w_1w_2{}^3x^{21}y^6+$$
$$\frac{589214423433007525108603}{2939165821965021120299008000}\,w_1{}^9w_2x^{20}y^7+\frac{6901035491}{28907562598400}\,w_1{}^5w_2{}^2x^{20}y^7+\frac{962306291029110537}{7175697807531789844480000}\,w_1w_2{}^3x^{20}y^7+$$
$$\frac{19838148887283659060304 1}{9405330630288067584956825600}\,w_1{}^{13}x^{20}y^7+\frac{3390100727}{4516806656000}\,w_1{}^5w_2{}^2x^{19}y^8+\frac{611205463259043509999144 37}{7524264504230454067965460480000}\,w_1{}^{13}x^{19}y^8+$$
$$\frac{4172196358903125959961867}{5878331643930042240598016000}\,w_1{}^9w_2x^{19}y^8+\frac{258274860088164424 77}{7175697807531789844480000}\,w_1w_2{}^3x^{19}y^8+$$

$$\frac{1812679825365986565667977 39}{7524264504230454067965460480 00}\, w_1{}^{13} x^{18} y^9 + \frac{548291942721}{289076562598400}\, w_1{}^5 w_2{}^2 x^{18} y^9 + \frac{57412404354565159299}{7175697807531789844480 00}\, w_1 w_2{}^3 x^{18} y^9 + \frac{2319303620636373881053 0693}{1175666328786008448119603200}\, w_1{}^9 w_2 x^{18} y^9 + \frac{5362697554161787413}{3587848903765894922240 0}\, w_1 w_2{}^3 x^{17} y^{10} + \frac{22649317947}{5781512519680}\, w_1{}^5 w_2{}^2 x^{17} y^{10} + \frac{2115981006988806395933 1309}{3762132252115227033982730240 0}\, w_1{}^{13} x^{17} y^{10} + \frac{2578588327190547850436229}{5878331643930042240598016000}\, w_1{}^9 w_2 x^{17} y^{10} + \frac{6318737786503054496247637}{6019411603384363254372368384}\, w_1{}^{13} x^{16} y^{11} + \frac{1859151292553904576299126 1}{2351332657572016896239206400}\, w_1{}^9 w_2 x^{16} y^{11} + \frac{34017187127212104939}{1435139561506357968896000}\, w_1 w_2{}^3 x^{16} y^{11} + \frac{386800517919}{5781512519680}\, w_1{}^5 w_2{}^2 x^{16} y^{11} + \frac{5954351475014099530256 3607}{3762132252115227033982730240 00}\, w_1{}^{13} x^{15} y^{12} + \frac{4282669436951810952921709}{3673957277456276400373760000}\, w_1{}^9 w_2 x^{15} y^{12} + \frac{344030839347}{36134453248000}\, w_1{}^5 w_2{}^2 x^{15} y^{12} + \frac{5762763522026178370 1}{1793924451882947461120 00}\, w_1 w_2{}^3 x^{15} y^{12} + \frac{6702160823117772801}{1793924451882947461120 00}\, w_1 w_2{}^3 x^{14} y^{13} + \frac{81986755151}{7226890649600}\, w_1{}^5 w_2{}^2 x^{14} y^{13} + \frac{5839911191384623945730059 3}{3009705801692181627186184192 0}\, w_1{}^{13} x^{14} y^{13} + \frac{1661777711529152122682968 61}{1175666328786008448119603200}\, w_1{}^9 w_2 x^{14} y^{13} + \frac{5839911191384623945730059 3}{3009705801692181627186184192 0}\, w_1{}^{13} x^{13} y^{14} + \frac{1661777711529152122682968 61}{1175666328786008448119603200}\, w_1{}^9 w_2 x^{13} y^{14} + \frac{6702160823117772801}{1793924451882947461120 00}\, w_1 w_2{}^3 x^{13} y^{14} + \frac{81986755151}{7226890649600}\, w_1{}^5 w_2{}^2 x^{13} y^{14} + \frac{344030839347}{36134453248000}\, w_1{}^5 w_2{}^2 x^{12} y^{15} + \frac{5954351475014099530256 3607}{3762132252115227033982730240 00}\, w_1{}^{13} x^{12} y^{15} + \frac{5762763522026178370 1}{1793924451882947461120 00}\, w_1 w_2{}^3 x^{12} y^{15} + \frac{4282669436951810952921709}{3673957277456276400373760000}\, w_1{}^9 w_2 x^{12} y^{15} + \frac{386800517919}{5781512519680}\, w_1{}^5 w_2{}^2 x^{11} y^{16} + \frac{6318737786503054496247637}{6019411603384363254372368384}\, w_1{}^{13} x^{11} y^{16} + \frac{1859151292553904576299126 1}{2351332657572016896239206400}\, w_1{}^9 w_2 x^{11} y^{16} + \frac{34017187127212104939}{1435139561506357968896000}\, w_1 w_2{}^3 x^{11} y^{16} + \frac{5362697554161787413}{3587848903765894922240 0}\, w_1 w_2{}^3 x^{10} y^{17} + \frac{2578588327190547850436229}{5878331643930042240598016000}\, w_1{}^9 w_2 x^{10} y^{17} + \frac{22649317947}{5781512519680}\, w_1{}^5 w_2{}^2 x^{10} y^{17} + \frac{2115981006988806395933 1309}{3762132252115227033982730240 0}\, w_1{}^{13} x^{10} y^{17} + \frac{2319303620636373881053 0693}{1175666328786008448119603200}\, w_1{}^9 w_2 x^9 y^{18} + \frac{5741240435456515929 9}{7175697807531789844480 00}\, w_1 w_2{}^3 x^9 y^{18} + \frac{1812679825365986565667977 39}{7524264504230454067965460480 00}\, w_1{}^{13} x^9 y^{18} + \frac{548291942721}{289076562598400}\, w_1{}^5 w_2{}^2 x^9 y^{18} + \frac{2582748600881644247 7}{7175697807531789844480 00}\, w_1 w_2{}^3 x^8 y^{19} + \frac{41721963589031259599617867}{5878331643930042240598016000}\, w_1{}^9 w_2 x^8 y^{19} + \frac{3390100727}{4516806656000}\, w_1{}^5 w_2{}^2 x^8 y^{19} + \frac{6112054632590435099991443 7}{7524264504230454067965460480 00}\, w_1{}^{13} x^8 y^{19} + \frac{5892144243300752108603}{2939165821965021120299008000}\, w_1{}^9 w_2 x^7 y^{20} + \frac{690103549 1}{2890756259840 0}\, w_1{}^5 w_2{}^2 x^7 y^{20} + \frac{1983814888728365906030 41}{9405330630288067584956825600}\, w_1{}^{13} x^7 y^{20} + \frac{9623062910291105 37}{7175697807531789844480 00}\, w_1 w_2{}^3 x^7 y^{20} + \frac{861179771 1}{1445378129920 00}\, w_1{}^5 w_2{}^2 x^6 y^{21} + \frac{3075560310063687244626663}{7524264504230454067965460480 00}\, w_1{}^{13} x^6 y^{21} + \frac{3634500845336764 81}{8969622259414737305600 0}\, w_1 w_2{}^3 x^6 y^{21} + \frac{2543471569361945396564 83}{5878331643930042240598016000}\, w_1{}^9 w_2 x^6 y^{21} + \frac{863231849488206 69}{8969622259414737305600 0}\, w_1 w_2{}^3 x^5 y^{22} + \frac{1627962309}{1445378129920 00}\, w_1{}^5 w_2{}^2 x^5 y^{22} + \frac{2016408655807304297213 1}{2939165821965021120299008000}\, w_1{}^9 w_2 x^5 y^{22} + \frac{4250225566510811750737 67}{7524264504230454067965460480 00}\, w_1{}^{13} x^5 y^{22} + \frac{5521248 9}{3614453248000}\, w_1{}^5 w_2{}^2 x^4 y^{23} + \frac{6144983395854036 9}{3587848903765894922240 00}\, w_1 w_2{}^3 x^4 y^{23} + \frac{4423181695653215397213}{5878331643930042240598016000}\, w_1{}^9 w_2 x^4 y^{23} + \frac{1954900207237431163717 69}{3762132252115227033982730240 00}\, w_1{}^{13} x^4 y^{23} + \frac{1514154694794883 1}{7175697807531789844480 00}\, w_1 w_2{}^3 x^3 y^{24} + \frac{6083773181964095618 07}{1175666328786008448119602000 0}\, w_1{}^9 w_2 x^3 y^{24} + \frac{1071083807072638410023}{3762132252115227033982730240 00}\, w_1{}^{13} x^3 y^{24} + \frac{3936753 9}{2890756259840 0}\, w_1{}^5 w_2{}^2 x^3 y^{24} + \frac{4381699990172026977}{2351332657572016896239206400}\, w_1{}^9 w_2 x^2 y^{25} + \frac{1113867417650 91}{7175697807531789844480 00}\, w_1 w_2{}^3 x^2 y^{25} + \frac{2287593562757769899 1}{2890756259840 00}\, w_1{}^{13} x^2 y^{25} + \frac{97929}{14453781299200}\, w_1{}^5 w_2{}^2 x^2 y^{25} + \frac{8552331506607}{17939244518829474612000 0}\, w_1 w_2{}^3 x y^{26} + \frac{3009705801692181627186184192 0}{5878331643930042240598016000}\, w_1{}^9 w_2 x y^{26} + \frac{1360977467191839 63}{9458462281186865 61}\, w_1{}^{13} x y^{26} + \frac{3701 7}{2890756259840 00}\, w_1{}^5 w_2{}^2 x y^{26}$$

Some values of the n-series for $F_{E(2)}(x, y)$ at $p = 3$ are:

$$[2]_{E(2)}(x) = (2\,x + 1/4\,w_1 x^3 + 1/8\,w_1{}^2 x^5 + \tfrac{5}{64}\,w_1{}^3 x^7 + (\tfrac{17}{656}\,w_2 + \tfrac{1139}{20992}\,w_1{}^4) x^9 + (\tfrac{277}{6560}\,w_1 w_2 + \tfrac{4257}{104960}\,w_1{}^5) x^{11} + (\tfrac{1407}{26240}\,w_1{}^2 w_2 + \tfrac{53443}{1679360}\,w_1{}^6) x^{13} + (\tfrac{26013}{419840}\,w_1{}^3 w_2 + \tfrac{347231}{13434880}\,w_1{}^7) x^{15} + (\tfrac{5932661}{275415040}\,w_1{}^8 + \tfrac{234445}{3442688}\,w_1{}^4 w_2 + \tfrac{51}{16810}\,w_2{}^2) x^{17} + (\tfrac{201802961}{11016601600}\,w_1{}^9 + \tfrac{25017681}{344268800}\,w_1{}^5 w_2 + \tfrac{415801}{43033600}\,w_1 w_2{}^2) x^{19} + (\tfrac{838301471}{11016601600}\,w_1{}^6 w_2 + \tfrac{6831589}{344268800}\,w_1{}^2 w_2{}^2 + \tfrac{174396573}{11016601600}\,w_1{}^{10}) x^{21} + (\tfrac{2443375297}{176265625600}\,w_1{}^{11} + \tfrac{433331597}{5508300800}\,w_1{}^7 w_2 + \tfrac{11476361}{344268800}\,w_1{}^3 w_2{}^2) x^{23} + (\tfrac{145621864191}{1806722662400}\,w_1{}^8 w_2 + \tfrac{5622974101}{11292016400}\,w_1{}^4 w_2{}^2 + \tfrac{2838085815991}{231260500787200}\,w_1{}^{12} + \tfrac{14127}{27568400}\,w_2{}^3) x^{25} + (\tfrac{2181342973115489277 63}{8969622259414737305600 0}\,w_1 w_2{}^3 + \tfrac{9418858962549373207128 97}{1148111649205086375116800 0}\,w_1{}^9 w_2 + \tfrac{311044272969}{4516806656000}\,w_1{}^5 w_2{}^2 + \tfrac{3223193317369675596749 97}{2939165821965021120299008000}\,w_1{}^{13}) x^{27} + O(x^{29}))$$

$$[3]_{E(2)}(x) = (3\,x + w_1 x^3 + \tfrac{9}{8}\,w_1{}^2 x^5 + \tfrac{105}{64}\,w_1{}^3 x^7 + (w_2 + \tfrac{1377}{512}\,w_1{}^4) x^9 + (\tfrac{27063}{6560}\,w_1 w_2 + \tfrac{3985389}{839680}\,w_1{}^5) x^{11} + (\tfrac{335013}{26240}\,w_1{}^2 w_2 + \tfrac{59092773}{6717440}\,w_1{}^6) x^{13} + (\tfrac{14888197}{419840}\,w_1{}^3 w_2 + \tfrac{907229781}{53739520}\,w_1{}^7) x^{15} + (\tfrac{2859206553}{85983232}\,w_1{}^8 + \tfrac{2444787}{26240}\,w_1{}^4 w_2 + \tfrac{19683}{6560}\,w_2{}^2) x^{17} + (\tfrac{47125533252921}{705062502400}\,w_1{}^9 + \tfrac{1305084701079}{5508300800}\,w_1{}^5 w_2 + \tfrac{1038400449}{43033600}\,w_1 w_2{}^2) x^{19} + (\tfrac{13001825049983}{22033203200}\,w_1{}^6 w_2 + \tfrac{42093100711}{344268800}\,w_1{}^2 w_2{}^2 + \tfrac{770136329076849}{5640500019200}\,w_1{}^{10}) x^{21} + (\tfrac{12753311865572673}{45124000153600}\,w_1{}^{11} + \tfrac{510885470342637}{352531251200}\,w_1{}^7 w_2 + \tfrac{688866052491}{1377075200}\,w_1{}^3 w_2{}^2) x^{23} + (\tfrac{2484550168220583}{705062502400}\,w_1{}^8 w_2 + \tfrac{19896533323347}{11016601600}\,w_1{}^4 w_2{}^2 + \tfrac{213532277359138857}{360992001228800}\,w_1{}^{12} + \tfrac{559581129}{43033600}\,w_2{}^3) x^{25} + (\tfrac{43934665615767}{282300416000}\,w_1 w_2{}^3 + \tfrac{3934684824183834919}{4625210015744000}\,w_1{}^9 w_2 + \tfrac{217057782896487363}{36134453248000}\,w_1{}^5 w_2{}^2 + \tfrac{7397864588039384849 49}{5920268820152320 00}\,w_1{}^{13}) x^{27} + O(x^{29}))$$

$$[4]_{E(2)}(x) = (4\,x + 5/2\,w_1 x^3 + 5\,w_1{}^2 x^5 + \tfrac{105}{8}\,w_1{}^3 x^7 + (\tfrac{4369}{328}\,w_2 + \tfrac{25483}{656}\,w_1{}^4) x^9 + (\tfrac{16657}{164}\,w_1 w_2 + \tfrac{162411}{1312}\,w_1{}^5) x^{11} + (\tfrac{376285}{656}\,w_1{}^2 w_2 + \tfrac{4348865}{10496}\,w_1{}^6) x^{13} + (\tfrac{30374793}{10496}\,w_1{}^3 w_2 + \tfrac{30146331}{20992}\,w_1{}^7) x^{15} + (\tfrac{21986377399}{4303360}\,w_1{}^8 + \tfrac{7414882441}{537920}\,w_1{}^4 w_2 + \tfrac{3355392}{8405}\,w_2{}^2) x^{17} + (\tfrac{1277147679637}{68853760}\,w_1{}^9 + \tfrac{273189173479}{4303360}\,w_1{}^5 w_2 + \tfrac{6376771493}{1075840}\,w_1 w_2{}^2) x^{19} + (\tfrac{19703222881573}{68853760}\,w_1{}^6 w_2 + \tfrac{473636125993}{8606720}\,w_1{}^2 w_2{}^2 + \tfrac{9424797774483}{137707520}\,w_1{}^{10}) x^{21} + (\tfrac{35238975769269}{137707520}\,w_1{}^{11} + \tfrac{5471196084359}{4303360}\,w_1{}^7 w_2 + \tfrac{883847223821}{2151680}\,w_1{}^3 w_2{}^2) x^{23} + (\tfrac{78920381224270903}{14115020800}\,w_1{}^8 w_2 + \tfrac{9523127148241757}{3528755200}\,w_1{}^4 w_2{}^2 + \tfrac{436956342802597457}{451680665600}\,w_1{}^{12} + \tfrac{29777845728}{1723025}\,w_2{}^3) x^{25} + (\tfrac{34237785266207481617103567}{8969622259414737305600}\,w_1 w_2{}^3 + \tfrac{70054621473312102006205177 7697}{2870279123012715937 7920}\,w_1{}^9 w_2 + \tfrac{184134014519927607}{11292016640}\,w_1{}^5 w_2{}^2 + \tfrac{21191093142888341303660086900 7}{5740558246025431875584 0}\,w_1{}^{13}) x^{27} + O(x^{29}))$$

$$[5]_{E(2)}(x) = (5\,x + 5\,w_1 x^3 + \tfrac{125}{8}\,w_1{}^2 x^5 + \tfrac{4125}{64}\,w_1{}^3 x^7 + (\tfrac{4069}{41}\,w_2 + \tfrac{6300653}{20992}\,w_1{}^4) x^9 + (\tfrac{1578775}{1312}\,w_1 w_2 + \tfrac{252741325}{167936}\,w_1{}^5) x^{11} + (\tfrac{1375325}{128}\,w_1{}^2 w_2 + \tfrac{259741325}{32768}\,w_1{}^6) x^{13} + (\tfrac{7181524725}{83968}\,w_1{}^3 w_2 + \tfrac{464673337925}{10747904}\,w_1{}^7) x^{15} + (\tfrac{853297543153125}{3525312512}\,w_1{}^8 + \tfrac{55269212187 5}{860672}\,w_1{}^4 w_2 + \tfrac{953671875}{53792}\,w_2{}^2) x^{17} + (\tfrac{3900113634654 4485}{28202500096}\,w_1{}^9 + \tfrac{102667203927515 115}{220332032}\,w_1{}^5 w_2 + \tfrac{720128905165}{1721344}\,w_1 w_2{}^2) x^{19} + (\tfrac{29158089874118835}{881328128}\,w_1{}^6 w_2 + \tfrac{847226319411 95}{13770752}\,w_1{}^2 w_2{}^2 + \tfrac{1811721198394261005}{225620000768}\,w_1{}^{10}) x^{21} + (\tfrac{852822162408891481 25}{1804960006144}\,w_1{}^{11} + \tfrac{3264187049212145625}{14101250048}\,w_1{}^7 w_2 + \tfrac{399900496234937 5}{55083008}\,w_1{}^3 w_2{}^2) x^{23} + (\tfrac{1853512919989233156875}{1156302503936}\,w_1{}^8 w_2 + \tfrac{1360734230777072937 5}{18067226624}\,w_1{}^4 w_2{}^2 + \tfrac{1664182979147306798812 5}{592026882015232}\,w_1{}^{12} + \tfrac{322857411703125}{70575104}\,w_2{}^3) x^{25} + (\tfrac{1152081775043543592001474583 23}{7175697807531789844 48}\,w_1 w_2{}^3 + \tfrac{1295225449536567634435058672 54050659}{1175666328786008448119 6032}\,w_1{}^9 w_2 + \tfrac{207565755560966876 14267}{289075625984}\,w_1{}^5 w_2{}^2 + \tfrac{2540245213066459950045309659673580745}{150485290084609081359309 2096}\,w_1{}^{13}) x^{27} + O(x^{29}))$$

$$[6]_{E(2)}(x) = (6\,x + \tfrac{35}{4}\,w_1 x^3 + \tfrac{315}{8}\,w_1{}^2 x^5 + \tfrac{15015}{64}\,w_1{}^3 x^7 + (\tfrac{335923}{656}\,w_2 + \tfrac{33148801}{20992}\,w_1{}^4) x^9 + (\tfrac{11841291}{1312}\,w_1 w_2 + \tfrac{240250311}{20992}\,w_1{}^5) x^{11} + (\tfrac{612891825}{5248}\,w_1{}^2 w_2 + \tfrac{29265062085}{335872}\,w_1{}^6) x^{13} + (\tfrac{112988171779}{83968}\,w_1{}^3 w_2 + \tfrac{1845812089513}{2686976}\,w_1{}^7) x^{15} + (\tfrac{1531123674739911}{275415040}\,w_1{}^8 + \tfrac{251618568159987}{17213440}\,w_1{}^4 w_2 + \tfrac{6611972409}{16810}\,w_2{}^2) x^{17} + (\tfrac{101160295529913039}{2203320320}\,w_1{}^9 + \tfrac{10563624801452919}{68853760}\,w_1{}^5 w_2 + \tfrac{116088629021799}{8606720}\,w_1 w_2{}^2) x^{19} + (\tfrac{3471078620332574601}{2203320320}\,w_1{}^6 w_2 + \tfrac{19811709154694779}{68853760}\,w_1{}^2 w_2{}^2 + \tfrac{424550437647991949}{1101660160}\,w_1{}^{10}) x^{21} + (\tfrac{11555344342049503419 9}{35253125120}\,w_1{}^{11} + \tfrac{17559827441886457539}{1101660160}\,w_1{}^7 w_2 + \tfrac{338769181815606927}{68853760}\,w_1{}^3 w_2{}^2) x^{23} + (\tfrac{28835657311823006367 5949}{1806722662400}\,w_1{}^8 w_2 + \tfrac{834659551397503462239}{112920166400}\,w_1{}^4 w_2{}^2 + \tfrac{651903027485276665865349}{231260500787200}\,w_1{}^{12} + \tfrac{12031036999867053}{27568400}\,w_2{}^3) x^{25} + (\tfrac{79848849117240795848149412426537}{3587848903765894922240}\,w_1 w_2{}^3 + \tfrac{1456754474723224679750311590661635 63}{9184893193640691000 9344}\,w_1{}^9 w_2 + \tfrac{184300851697665735180883}{180672266240}\,w_1{}^5 w_2{}^2 + \tfrac{2876840755747933714748356146988710283 7}{1175666328786008448119603 20}\,w_1{}^{13}) x^{27} + O(x^{29}))$$

$$[7]_{E(2)}(x) = (7\,x + 14\,w_1 x^3 + \tfrac{343}{4}\,w_1{}^2 x^5 + \tfrac{22295}{32}\,w_1{}^3 x^7 + (\tfrac{84070}{41}\,w_2 + \tfrac{67144735}{10496}\,w_1{}^4) x^9 + (\tfrac{162255121}{3280}\,w_1 w_2 + \tfrac{26554559563}{419840}\,w_1{}^5) x^{11} + (\tfrac{11474295651}{13120}\,w_1{}^2 w_2 + \tfrac{2206339129771}{3358720}\,w_1{}^6) x^{13} + (\tfrac{2888162245899}{209920}\,w_1{}^3 w_2 + \tfrac{189842247210427}{26869760}\,w_1{}^7) x^{15} + (\tfrac{68746572032759569 9}{8813281280}\,w_1{}^8 + \tfrac{877914416424493}{4303360}\,w_1{}^4 w_2 + \tfrac{145394046021}{26896}\,w_2{}^2) x^{17} + (\tfrac{3098190212677013325 27}{352531251200}\,w_1{}^9 + \tfrac{8048158064067371873}{2754150400}\,w_1{}^5 w_2 + \tfrac{5458739032839463}{21516800}\,w_1 w_2{}^2) x^{19} + (\tfrac{4510986068048070891321}{11016601600}\,w_1{}^6 w_2 + \tfrac{1273571189555457965 7}{172134400}\,w_1{}^2 w_2{}^2 + \tfrac{2838152136028192172846 3}{2820250009600}\,w_1{}^{10}) x^{21} + (\tfrac{2634623269517712114388831}{22562000076800}\,w_1{}^{11} + \tfrac{9964698574827857842993 9}{176265625600}\,w_1{}^7 w_2 + \tfrac{1190123759797931826777}{688537600}\,w_1{}^3 w_2{}^2) x^{23} + (\tfrac{2232761096189229434588468 1}{2890756259840}\,w_1{}^8 w_2 + \tfrac{1601840693103111237431 69}{45168066560}\,w_1{}^4 w_2{}^2 + \tfrac{2027722290213309791949450379}{1480067205038080}\,w_1{}^{12} + \tfrac{3632060021023534863}{176437760}\,w_2{}^3) x^{25} + (\tfrac{6443017901274316989559474043621914 9}{4484811129707368652 8000}\,w_1 w_2{}^3 +$$

$\frac{769527066728011648424404492374821880872 93}{7347914554912552800747520 00} w_1^9 w_2 + \frac{120734625993819993794501802 1}{18067226624000} w_1^5 w_2^2 + \frac{152595456501861847748623542710624870830290 3}{940533063028806758495682560 00} w_1^{13})x^{27} + O(x^{29}))$

$[8]_{E(2)}(x) = (8\,x + 21\,w_1 x^3 + 168\,w_1^2 x^5 + 1785\,w_1^3 x^7 + (\frac{1118481}{164} w_2 + \frac{28126273}{1312} w_1^4)x^9 + (\frac{44214954}{205} w_1 w_2 + \frac{227339441}{820} w_1^5)x^{11} + (\frac{2046995097}{410} w_1^2 w_2 + \frac{12353716291}{3280} w_1^6)x^{13} + (\frac{674326988013}{6560} w_1^3 w_2 + \frac{2780808010589}{52480} w_1^7)x^{15} + (\frac{102906743600997}{134480} w_1^8 + \frac{33526482113481}{16810} w_1^4 w_2 + \frac{439804624896}{8405} w_2^2)x^{17} + (\frac{485307070819007969}{43033600} w_1^9 + \frac{100532360199199173}{2689600} w_1^5 w_2 + \frac{2164327473974841}{672400} w_1 w_2^2)x^{19} + (\frac{14744097433575523167}{21516800} w_1^6 w_2 + \frac{661407536827946349}{5379200} w_1^2 w_2^2 + \frac{58152815793625753361}{344268800} w_1^{10})x^{21} + (\frac{551658992841889234 89}{21516800} w_1^{11} + \frac{16644128043138252153}{1344800} w_1^7 w_2 + \frac{126443862034017488 1}{336200} w_1^3 w_2^2)x^{23} + (\frac{97576977375994072999497}{441094400} w_1^8 w_2 + \frac{11138526044792644063293}{110273600} w_1^4 w_2^2 + \frac{27768864172487415397410 9}{7057510400} w_1^{12} + \frac{9991985594438615 04}{1723025} w_2^3)x^{25} + (\frac{74342748901519516492982275699303763}{1401503478033552704000} w_1 w_2^3 + \frac{35195617944035680026121239266909836961}{89696222594147373056000} w_1^9 w_2 + \frac{87900957482025117309019497}{35287552000} w_1^5 w_2^2 + \frac{43735990729124518401902782640300039659 1}{71756978075317898444800 0} w_1^{13})x^{27} + O(x^{29}))$

$[9]_{E(2)}(x) = (9\,x + 30\,w_1 x^3 + \frac{1215}{4} w_1^2 x^5 + \frac{130815}{32} w_1^3 x^7 + (19686\,w_2 + \frac{15922831}{256} w_1^4)x^9 + (\frac{518174901}{656} w_1 w_2 + \frac{85568408343}{83968} w_1^5)x^{11} + (\frac{60825823695}{2624} w_1^2 w_2 + \frac{11781643784535}{671744} w_1^6)x^{13} + (\frac{25394783254839}{41984} w_1^3 w_2 + \frac{1679292560360 07}{5373952} w_1^7)x^{15} + (\frac{12294274437033380 19}{214958080} w_1^8 + \frac{156093614918144 1}{104960} w_1^4 w_2 + \frac{1271126624409}{3280} w_2^2)x^{17} + (\frac{75291039998131516892 91}{70506250240} w_1^9 + \frac{19453345823311490790 9}{550830080} w_1^5 w_2 + \frac{130151503609663779}{4303360} w_1 w_2^2)x^{19} + (\frac{18074908551537035448957}{2203320320} w_1^6 w_2 + \frac{50436197853678270189}{34426880} w_1^2 w_2^2 + \frac{11429880574212668398844 91}{564050001920} w_1^{10})x^{21} + (\frac{17583132472494785642474 0379}{4512400015360} w_1^{11} + \frac{66183031769035709116357 11}{35253125120} w_1^7 w_2 + \frac{78230816736344089525 53}{137707520} w_1^3 w_2^2)x^{23} + (\frac{14987828275493334388989 01389}{352531251200} w_1^8 w_2 + \frac{10652407386037393248509301}{5508300800} w_1^4 w_2^2 + \frac{13674602288042660694577205303 1}{180496000614400} w_1^{12} + \frac{23711060865045722330 7}{21516800} w_2^3)x^{25} + (\frac{72200602505252627413266609}{5646008320} w_1 w_2^3 + \frac{88384243549699201795410589356 49}{92504200314880} w_1^9 w_2 + \frac{43682128390130941653136010757}{722689064960} w_1^5 w_2^2 + \frac{17604831403179110812274606446 7427}{11840537640304640} w_1^{13})x^{27} + O(x^{29}))$

8.9. $F_{E_2^*}(x,y)$ **at** $p = 3$ **over** $\mathbb{Z}_3[\![u_1, u_2, \ldots, u_{n-1}]\!][u, \frac{1}{u}]$**.** Using the Maple commands below, we can explicitly compute this formal group law.

```
> restart: with(powseries):
> n:=2: # n is the height of the fgl
> lambda[0]:=1:
> w[0]:=p:
> L:=(m,n)->{ seq(p*lambda[j]=add(
  lambda[i]*w[j-i]^(p^i),i=0..j),j=m..n) };
> # the inputs m and n are the lower and upper
  # bounds for the subscript on lambda_i
> M:=(m,n)->{seq(lambda[i],i=m..n)};
> solve(L(1,6),M(1,6));
> subs({seq(w[i]=u[i]*u^(p^i),i=1..n-1),
  w[n]=u^(p^n),seq(w[i]=0,i=n+1..6)},%);
> assign(expand(%));
> p:=3:
> m:=27: # calculate to O(m+1)
> q:=4: # the number of lambda_i's in the logarithm
  # so we know the logarithm to degree x^(p^q)
> f_E_n:=x->sum(lambda[i]*x^(p^i),i=0..q);
> f_E_n(x); # Lubin-Tate or Morava E-theory
> latex(%);
> log_E_n:=powpoly(f_E_n(x),x);
> exp_E_n:=reversion(log_E_n);
> simplify(tpsform(exp_E_n,x,m+1));
> latex(%);
> e_E_n:=x->convert(simplify(tpsform(exp_E_n,x,m+1)),
  polynom);
> F_E_n:=(x,y)->sort(simplify(mtaylor(subs(
  z=f_E_n(x)+f_E_n(y),e_E_n(z)),[x,y],m+1)),[x,y]);
> F_E_n(x,y);
> latex(%);
```

The results of these computations are that the logarithm $\log_{E_2^*}(x)$ at $p = 3$ equals

$x - 1/24\,u_1 u^3 x^3 + (-\frac{1}{19680} u^9 + \frac{1}{472320} u_1^4 u^{12})x^9 + (\frac{1}{183014339639616} u_1 u^{30} + \frac{1}{150071758504485120} u_1^9 u^{36} - \frac{1}{3601722204107642880} u_1^{13} u^{39})x^{27} + (\frac{1}{872663328862298331258155273058486989030400 0} u^{90} - \frac{1}{665457928581010745290008896267415615708650503671951360 00} u_1^{36} u^{117} - \frac{1}{209439198926951599501957265534036877367296000} u^{93} u_1^4 - \frac{1}{811534059245135055231718166179775141108110370331648000} u_1^{28} u^{111} + \frac{1}{159709902859442578869602135104179747770076120881268326400 0} u_1^{40} u^{120})x^{81}$

and the formal group law $F_{E_2^*}(x,y)$ at $p = 3$ equals

$x + y$

$+1/8\,u_1 u^3 x^2 y + 1/8\,u_1 u^3 x y^2$

$$+\frac{1}{64}\,u_1{}^2u^6x^4y+\frac{3}{64}\,u_1{}^2u^6x^3y^2+\frac{3}{64}\,u_1{}^2u^6x^2y^3+\frac{1}{64}\,u_1{}^2u^6xy^4$$

$$+\frac{1}{512}\,u_1{}^3u^9x^6y+\frac{3}{256}\,u_1{}^3u^9x^5y^2+\frac{13}{512}\,u_1{}^3u^9x^4y^3+\frac{13}{512}\,u_1{}^3u^9x^3y^4+\frac{3}{256}\,u_1{}^3u^9x^2y^5+\frac{1}{512}\,u_1{}^3u^9xy^6$$

$$+\frac{3}{6560}\,u^9x^8y+\frac{189}{839680}\,u_1{}^4u^{12}x^8y+\frac{993}{419840}\,u_1{}^4u^{12}x^7y^2+\frac{3}{1640}\,u^9x^7y^2+\frac{7299}{839680}\,u_1{}^4u^{12}x^6y^3+\frac{7}{1640}\,u^9x^6y^3+$$
$$\frac{6653}{419840}\,u_1{}^4u^{12}x^5y^4+\frac{21}{3280}\,u^9x^5y^4+\frac{21}{3280}\,u^9x^4y^5+\frac{6653}{419840}\,u_1{}^4u^{12}x^4y^5+\frac{7}{1640}\,u^9x^3y^6+\frac{7299}{839680}\,u_1{}^4u^{12}x^3y^6+$$
$$\frac{3}{1640}\,u^9x^2y^7+\frac{993}{419840}\,u_1{}^4u^{12}x^2y^7+\frac{3}{6560}\,u^9xy^8+\frac{189}{839680}\,u_1{}^4u^{12}xy^8$$

$$+\frac{3}{26240}\,u_1u^{12}x^{10}y+\frac{173}{6717440}\,u_1{}^5u^{15}x^{10}y+\frac{567}{1343488}\,u_1{}^5u^{15}x^9y^2+\frac{9}{10496}\,u_1u^{12}x^9y^2+\frac{163}{52480}\,u_1u^{12}x^8y^3+$$
$$\frac{3951}{1679360}\,u_1{}^5u^{15}x^8y^3+\frac{181}{26240}\,u_1u^{12}x^7y^4+\frac{5567}{839680}\,u_1{}^5u^{15}x^7y^4+\frac{18219}{1679360}\,u_1{}^5u^{15}x^6y^5+\frac{133}{13120}\,u_1u^{12}x^6y^5+$$
$$\frac{18219}{1679360}\,u_1{}^5u^{15}x^5y^6+\frac{133}{13120}\,u_1u^{12}x^5y^6+\frac{181}{26240}\,u_1u^{12}x^4y^7+\frac{5567}{839680}\,u_1{}^5u^{15}x^4y^7+\frac{163}{52480}\,u_1u^{12}x^3y^8+$$
$$\frac{3951}{1679360}\,u_1{}^5u^{15}x^3y^8+\frac{9}{10496}\,u_1u^{12}x^2y^9+\frac{567}{1343488}\,u_1{}^5u^{15}x^2y^9+\frac{3}{26240}\,u_1u^{12}xy^{10}+\frac{173}{6717440}\,u_1{}^5u^{15}xy^{10}$$

$$+\frac{157}{53739520}\,u_1{}^6u^{18}x^{12}y+\frac{9}{419840}\,u_1{}^2u^{15}x^{12}y+\frac{3729}{53739520}\,u_1{}^6u^{18}x^{11}y^2+\frac{27}{104960}\,u_1{}^2u^{15}x^{11}y^2+$$
$$\frac{71}{52480}\,u_1{}^2u^{15}x^{10}y^3+\frac{29429}{53739520}\,u_1{}^6u^{18}x^{10}y^3+\frac{177}{41984}\,u_1{}^2u^{15}x^9y^4+\frac{5883}{2686976}\,u_1{}^6u^{18}x^9y^4+\frac{3637}{419840}\,u_1{}^2u^{15}x^8y^5+$$
$$\frac{279561}{53739520}\,u_1{}^6u^{18}x^8y^5+\frac{53069}{6717440}\,u_1{}^6u^{18}x^7y^6+\frac{1291}{104960}\,u_1{}^2u^{15}x^7y^6+\frac{53069}{6717440}\,u_1{}^6u^{18}x^6y^7+\frac{1291}{104960}\,u_1{}^2u^{15}x^6y^7+$$
$$\frac{3637}{419840}\,u_1{}^2u^{15}x^5y^8+\frac{279561}{53739520}\,u_1{}^6u^{18}x^5y^8+\frac{5883}{2686976}\,u_1{}^6u^{18}x^4y^9+\frac{177}{41984}\,u_1{}^2u^{15}x^4y^9+\frac{29429}{53739520}\,u_1{}^6u^{18}x^3y^{10}+$$
$$\frac{71}{52480}\,u_1{}^2u^{15}x^3y^{10}+\frac{27}{104960}\,u_1{}^2u^{15}x^2y^{11}+\frac{3729}{53739520}\,u_1{}^6u^{18}x^2y^{11}+\frac{9}{419840}\,u_1{}^2u^{15}xy^{12}+\frac{157}{53739520}\,u_1{}^6u^{18}xy^{12}$$

$$+\frac{3}{839680}\,u_1{}^3u^{18}x^{14}y+\frac{141}{429916160}\,u_1{}^7u^{21}x^{14}y+\frac{21}{335872}\,u_1{}^3u^{18}x^{13}y^2+\frac{231}{21495808}\,u_1{}^7u^{21}x^{13}y^2+$$
$$\frac{1201}{10485760}\,u_1{}^7u^{21}x^{12}y^3+\frac{37}{81920}\,u_1{}^3u^{18}x^{12}y^3+\frac{517}{839680}\,u_1{}^7u^{21}x^{11}y^4+\frac{6333}{3358720}\,u_1{}^3u^{18}x^{11}y^4+\frac{85361}{42991616}\,u_1{}^7u^{21}x^{10}y^5+$$
$$\frac{1735}{335872}\,u_1{}^3u^{18}x^{10}y^5+\frac{1798171}{429916160}\,u_1{}^7u^{21}x^9y^6+\frac{33137}{3358720}\,u_1{}^3u^{18}x^9y^6+\frac{45493}{3358720}\,u_1{}^3u^{18}x^8y^7+\frac{2585209}{429916160}\,u_1{}^7u^{21}x^8y^7+$$
$$\frac{2585209}{429916160}\,u_1{}^7u^{21}x^7y^8+\frac{45493}{3358720}\,u_1{}^3u^{18}x^7y^8+\frac{33137}{3358720}\,u_1{}^3u^{18}x^6y^9+\frac{1798171}{429916160}\,u_1{}^7u^{21}x^6y^9+$$
$$\frac{85361}{42991616}\,u_1{}^7u^{21}x^5y^{10}+\frac{1735}{335872}\,u_1{}^3u^{18}x^5y^{10}+\frac{6333}{3358720}\,u_1{}^3u^{18}x^4y^{11}+\frac{517}{839680}\,u_1{}^7u^{21}x^4y^{11}+\frac{1201}{10485760}\,u_1{}^7u^{21}x^3y^{12}+$$
$$\frac{37}{81920}\,u_1{}^3u^{18}x^3y^{12}+\frac{21}{335872}\,u_1{}^3u^{18}x^2y^{13}+\frac{231}{21495808}\,u_1{}^7u^{21}x^2y^{13}+\frac{3}{839680}\,u_1{}^3u^{18}xy^{14}+\frac{141}{429916160}\,u_1{}^7u^{21}xy^{14}$$

$$+\frac{25881}{705062502400}\,u_1{}^8u^{24}x^{16}y+\frac{2979}{5508300800}\,u_1{}^4u^{21}x^{16}y+\frac{9}{43033600}\,u^{18}x^{16}y+\frac{9081}{688537600}\,u_1{}^4u^{21}x^{15}y^2+$$
$$\frac{27}{10758400}\,u^{18}x^{15}y^2+\frac{280593}{176265625600}\,u_1{}^8u^{24}x^{15}y^2+\frac{39}{2689600}\,u^{18}x^{14}y^3+\frac{347837}{2754150400}\,u_1{}^4u^{21}x^{14}y^3+$$
$$\frac{15589481}{705062502400}\,u_1{}^8u^{24}x^{14}y^3+\frac{231}{4303360}\,u^{18}x^{13}y^4+\frac{47047}{68853760}\,u_1{}^4u^{21}x^{13}y^4+\frac{678209}{4406640640}\,u_1{}^8u^{24}x^{13}y^4+$$
$$\frac{1533}{10758400}\,u^{18}x^{12}y^5+\frac{227224819}{352531251200}\,u_1{}^8u^{24}x^{12}y^5+\frac{6634921}{2754150400}\,u_1{}^4u^{21}x^{12}y^5+\frac{1257218737}{705062502400}\,u_1{}^8u^{24}x^{11}y^6+$$
$$\frac{4091531}{688537600}\,u_1{}^4u^{21}x^{11}y^6+\frac{3087}{10758400}\,u^{18}x^{11}y^6+\frac{5872809}{550830080}\,u_1{}^4u^{21}x^{10}y^7+\frac{242029301}{705062502400}\,u_1{}^8u^{24}x^{10}y^7+$$
$$\frac{243}{537920}\,u^{18}x^{10}y^7+\frac{78290759}{5508300800}\,u_1{}^4u^{21}x^9y^8+\frac{24309}{43033600}\,u^{18}x^9y^8+\frac{3336593521}{705062502400}\,u_1{}^8u^{24}x^9y^8+$$
$$\frac{78290759}{5508300800}\,u_1{}^4u^{21}x^8y^9+\frac{3336593521}{705062502400}\,u_1{}^8u^{24}x^8y^9+\frac{24309}{43033600}\,u^{18}x^8y^9+\frac{242029301}{705062502400}\,u_1{}^8u^{24}x^7y^{10}+$$
$$\frac{243}{537920}\,u^{18}x^7y^{10}+\frac{5872809}{550830080}\,u_1{}^4u^{21}x^7y^{10}+\frac{4091531}{688537600}\,u_1{}^4u^{21}x^6y^{11}+\frac{1257218737}{705062502400}\,u_1{}^8u^{24}x^6y^{11}+$$
$$\frac{3087}{10758400}\,u^{18}x^6y^{11}+\frac{6634921}{2754150400}\,u_1{}^4u^{21}x^5y^{12}+\frac{227224819}{352531251200}\,u_1{}^8u^{24}x^5y^{12}+\frac{1533}{10758400}\,u^{18}x^5y^{12}+$$
$$\frac{231}{4303360}\,u^{18}x^4y^{13}+\frac{47047}{68853760}\,u_1{}^4u^{21}x^4y^{13}+\frac{678209}{4406640640}\,u_1{}^8u^{24}x^4y^{13}+\frac{347837}{2754150400}\,u_1{}^4u^{21}x^3y^{14}+$$
$$\frac{15589481}{705062502400}\,u_1{}^8u^{24}x^3y^{14}+\frac{39}{2689600}\,u^{18}x^3y^{14}+\frac{280593}{176265625600}\,u_1{}^8u^{24}x^2y^{15}+\frac{9081}{688537600}\,u_1{}^4u^{21}x^2y^{15}+$$
$$\frac{27}{10758400}\,u^{18}x^2y^{15}+\frac{25881}{705062502400}\,u_1{}^8u^{24}xy^{16}+\frac{9}{43033600}\,u^{18}xy^{16}+\frac{2979}{5508300800}\,u_1{}^4u^{21}xy^{16}$$

$$+\frac{1701}{22033203200}\,u_1{}^5u^{24}x^{18}y+\frac{27}{344268800}\,u_1u^{21}x^{18}y+\frac{23113}{5640500019200}\,u_1{}^9u^{27}x^{18}y+\frac{243}{172134400}\,u_1u^{21}x^{17}y^2+$$
$$\frac{1285029}{5640500019200}\,u_1{}^9u^{27}x^{17}y^2+\frac{111051}{44066406400}\,u_1{}^5u^{24}x^{17}y^2+\frac{3867}{344268800}\,u_1u^{21}x^{16}y^3+\frac{1369767}{44066406400}\,u_1{}^5u^{24}x^{16}y^3+$$
$$\frac{1413653}{352531251200}\,u_1{}^9u^{27}x^{16}y^3+\frac{4707}{86067200}\,u_1u^{21}x^{15}y^4+\frac{49542783}{1410125004800}\,u_1{}^9u^{27}x^{15}y^4+\frac{1169841}{5508300800}\,u_1{}^5u^{24}x^{15}y^4+$$
$$\frac{3993}{21516800}\,u_1u^{21}x^{14}y^5+\frac{20669099}{22033203200}\,u_1{}^5u^{24}x^{14}y^5+\frac{522214951}{2820250009600}\,u_1{}^9u^{27}x^{14}y^5+\frac{4039}{8606720}\,u_1u^{21}x^{13}y^6+$$
$$\frac{3194373}{1101660160}\,u_1{}^5u^{24}x^{13}y^6+\frac{365668037}{564050001920}\,u_1{}^9u^{27}x^{13}y^6+\frac{79069}{86067200}\,u_1u^{21}x^{12}y^7+\frac{144581173}{220333203200}\,u_1{}^5u^{24}x^{12}y^7+$$
$$\frac{1126129163}{705062502400}\,u_1{}^9u^{27}x^{12}y^7+\frac{4042054039}{1410125004800}\,u_1{}^9u^{27}x^{11}y^8+\frac{492174319}{44066406400}\,u_1{}^5u^{24}x^{11}y^8+\frac{245007}{172134400}\,u_1u^{21}x^{11}y^8+$$
$$\frac{10780550281}{2820250009600}\,u_1{}^9u^{27}x^{10}y^9+\frac{639838853}{44066406400}\,u_1{}^5u^{24}x^{10}y^9+\frac{304129}{172134400}\,u_1u^{21}x^{10}y^9+\frac{639838853}{44066406400}\,u_1{}^5u^{24}x^9y^{10}+$$

$$\frac{304129}{172134400}\,u_1u^{21}x^9y^{10}+\frac{10780550281}{2820250009600}\,u_1{}^9u^{27}x^9y^{10}+\frac{492174319}{44066406400}\,u_1{}^5u^{24}x^8y^{11}+\frac{245007}{172134400}\,u_1u^{21}x^8y^{11}+$$
$$\frac{4042054039}{1410125004800}\,u_1{}^9u^{27}x^8y^{11}+\frac{1126129163}{705062502400}\,u_1{}^9u^{27}x^7y^{12}+\frac{144581173}{22033203200}\,u_1{}^5u^{24}x^7y^{12}+\frac{79069}{86067200}\,u_1u^{21}x^7y^{12}+$$
$$\frac{4039}{8606720}\,u_1u^{21}x^6y^{13}+\frac{3194373}{1101660160}\,u_1{}^5u^{24}x^6y^{13}+\frac{365668037}{564050001920}\,u_1{}^9u^{27}x^6y^{13}+\frac{3993}{21516800}\,u_1u^{21}x^5y^{14}+$$
$$\frac{522214951}{2820250009600}\,u_1{}^9u^{27}x^5y^{14}+\frac{20669099}{22033203200}\,u_1{}^5u^{24}x^5y^{14}+\frac{1169841}{5508300800}\,u_1{}^5u^{24}x^4y^{15}+\frac{4707}{86067200}\,u_1u^{21}x^4y^{15}+$$
$$\frac{49542783}{1410125004800}\,u_1{}^9u^{27}x^4y^{15}+\frac{1413653}{352531251200}\,u_1{}^9u^{27}x^3y^{16}+\frac{1369767}{44066406400}\,u_1{}^5u^{24}x^3y^{16}+\frac{3867}{344268800}\,u_1u^{21}x^3y^{16}+$$
$$\frac{111051}{44066406400}\,u_1{}^5u^{24}x^2y^{17}+\frac{1285029}{5640500019200}\,u_1{}^9u^{27}x^2y^{17}+\frac{243}{172134400}\,u_1u^{21}x^2y^{17}+\frac{1701}{22033203200}\,u_1{}^5u^{24}xy^{18}+$$
$$\frac{23113}{5640500019200}\,u_1{}^9u^{27}xy^{18}+\frac{27}{344268800}\,u_1u^{21}xy^{18}$$

$$+\frac{3729}{352531251200}\,u_1{}^6u^{27}x^{20}y+\frac{27}{1377075200}\,u_1{}^2u^{24}x^{20}y+\frac{20601}{45124000153600}\,u_1{}^{10}u^{30}x^{20}y+\frac{57255}{1804960006144}\,u_1{}^{10}u^{30}x^{19}y^2+$$
$$\frac{27}{55083008}\,u_1{}^2u^{24}x^{19}y^2+\frac{789}{1762656256}\,u_1{}^6u^{27}x^{19}y^2+\frac{14121}{2754150400}\,u_1{}^2u^{24}x^{18}y^3+\frac{31212959}{45124000153600}\,u_1{}^{10}u^{30}x^{18}y^3+$$
$$\frac{1224183}{176265625600}\,u_1{}^6u^{27}x^{18}y^3+\frac{10342863}{176265625600}\,u_1{}^6u^{27}x^{17}y^4+\frac{87561}{2754150400}\,u_1{}^2u^{24}x^{17}y^4+\frac{336642879}{45124000153600}\,u_1{}^{10}u^{30}x^{17}y^4+$$
$$\frac{185427}{1377075200}\,u_1{}^2u^{24}x^{16}y^5+\frac{14009073}{44066406400}\,u_1{}^6u^{27}x^{16}y^5+\frac{136260851}{2820250009600}\,u_1{}^{10}u^{30}x^{16}y^5+\frac{288921}{688537600}\,u_1{}^2u^{24}x^{15}y^6+$$
$$\frac{4701683993}{22562000076800}\,u_1{}^{10}u^{30}x^{15}y^6+\frac{53021683}{44066406400}\,u_1{}^6u^{27}x^{15}y^6+\frac{589621049}{176265625600}\,u_1{}^6u^{27}x^{14}y^7+$$
$$\frac{14363831151}{22562000076800}\,u_1{}^{10}u^{30}x^{14}y^7+\frac{172993}{172134400}\,u_1{}^2u^{24}x^{14}y^7+\frac{209317}{110166016}\,u_1{}^2u^{24}x^{13}y^8+\frac{1615234997}{1128100003840}\,u_1{}^{10}u^{30}x^{13}y^8+$$
$$\frac{496857327}{70506250240}\,u_1{}^6u^{27}x^{13}y^8+\frac{7938873}{2754150400}\,u_1{}^2u^{24}x^{12}y^9+\frac{505501721}{44066406400}\,u_1{}^6u^{27}x^{12}y^9+\frac{856265899}{352531251200}\,u_1{}^{10}u^{30}x^{12}y^9+$$
$$\frac{4878523}{1377075200}\,u_1{}^2u^{24}x^{11}y^{10}+\frac{2572869683}{176265625600}\,u_1{}^6u^{27}x^{11}y^{10}+\frac{71136117417}{22562000076800}\,u_1{}^{10}u^{30}x^{11}y^{10}+$$
$$\frac{2572869683}{176265625600}\,u_1{}^6u^{27}x^{10}y^{11}+\frac{71136117417}{22562000076800}\,u_1{}^{10}u^{30}x^{10}y^{11}+\frac{4878523}{1377075200}\,u_1{}^2u^{24}x^{10}y^{11}+$$
$$\frac{505501721}{44066406400}\,u_1{}^6u^{27}x^9y^{12}+\frac{7938873}{2754150400}\,u_1{}^2u^{24}x^9y^{12}+\frac{856265899}{352531251200}\,u_1{}^{10}u^{30}x^9y^{12}+\frac{496857327}{70506250240}\,u_1{}^6u^{27}x^8y^{13}+$$
$$\frac{1615234997}{1128100003840}\,u_1{}^{10}u^{30}x^8y^{13}+\frac{209317}{110166016}\,u_1{}^2u^{24}x^8y^{13}+\frac{172993}{172134400}\,u_1{}^2u^{24}x^7y^{14}+\frac{14363831151}{22562000076800}\,u_1{}^{10}u^{30}x^7y^{14}+$$
$$\frac{589621049}{176265625600}\,u_1{}^6u^{27}x^7y^{14}+\frac{4701683993}{22562000076800}\,u_1{}^{10}u^{30}x^6y^{15}+\frac{53021683}{44066406400}\,u_1{}^6u^{27}x^6y^{15}+\frac{288921}{688537600}\,u_1{}^2u^{24}x^6y^{15}+$$
$$\frac{14009073}{44066406400}\,u_1{}^6u^{27}x^5y^{16}+\frac{136260851}{2820250009600}\,u_1{}^{10}u^{30}x^5y^{16}+\frac{185427}{1377075200}\,u_1{}^2u^{24}x^5y^{16}+\frac{10342863}{176265625600}\,u_1{}^6u^{27}x^4y^{17}+$$
$$\frac{336642879}{45124000153600}\,u_1{}^{10}u^{30}x^4y^{17}+\frac{87561}{2754150400}\,u_1{}^2u^{24}x^4y^{17}+\frac{1224183}{176265625600}\,u_1{}^6u^{27}x^3y^{18}+\frac{14121}{2754150400}\,u_1{}^2u^{24}x^3y^{18}+$$
$$\frac{31212959}{45124000153600}\,u_1{}^{10}u^{30}x^3y^{18}+\frac{789}{1762656256}\,u_1{}^6u^{27}x^2y^{19}+\frac{57255}{1804960006144}\,u_1{}^{10}u^{30}x^2y^{19}+\frac{27}{55083008}\,u_1{}^2u^{24}x^2y^{19}+$$
$$\frac{20601}{45124000153600}\,u_1{}^{10}u^{30}xy^{20}+\frac{27}{1377075200}\,u_1{}^2u^{24}xy^{20}+\frac{3729}{352531251200}\,u_1{}^6u^{27}xy^{20}$$

$$+\frac{3669}{72198400245760}\,u_1{}^{11}u^{33}x^{22}y+\frac{9}{2203320320}\,u_1{}^3u^{27}x^{22}y+\frac{99}{70506250240}\,u_1{}^7u^{30}x^{22}y+\frac{297}{2203320320}\,u_1{}^3u^{27}x^{21}y^2+$$
$$\frac{31185}{7219840024576}\,u_1{}^{11}u^{33}x^{21}y^2+\frac{10593}{1410125004800}\,u_1{}^7u^{30}x^{21}y^2+\frac{19731}{11016601600}\,u_1{}^3u^{27}x^{20}y^3+$$
$$\frac{41339853}{360992001228800}\,u_1{}^{11}u^{33}x^{20}y^3+\frac{4054837}{2820250009600}\,u_1{}^7u^{30}x^{20}y^3+\frac{759}{55083008}\,u_1{}^3u^{27}x^{19}y^4+$$
$$\frac{21560155}{14439680049152}\,u_1{}^{11}u^{33}x^{19}y^4+\frac{832681}{56405000192}\,u_1{}^7u^{30}x^{19}y^4+\frac{785727}{11016601600}\,u_1{}^3u^{27}x^{18}y^5+\frac{67991391}{705062502400}\,u_1{}^7u^{30}x^{18}y^5+$$
$$\frac{1052322839}{90248000307200}\,u_1{}^{11}u^{33}x^{18}y^5+\frac{21908832441}{360992001228800}\,u_1{}^{11}u^{33}x^{17}y^6+\frac{1237589379}{2820250009600}\,u_1{}^7u^{30}x^{17}y^6+$$
$$\frac{2963547}{11016601600}\,u_1{}^3u^{27}x^{17}y^6+\frac{51770091}{35253125120}\,u_1{}^7u^{30}x^{16}y^7+\frac{4053795109}{18049600061440}\,u_1{}^{11}u^{33}x^{16}y^7+\frac{1708609}{2203320320}\,u_1{}^3u^{27}x^{16}y^7+$$
$$\frac{9699969}{5508300800}\,u_1{}^3u^{27}x^{15}y^8+\frac{6948734177}{11281000038400}\,u_1{}^{11}u^{33}x^{15}y^8+\frac{5275191883}{1410125004800}\,u_1{}^7u^{30}x^{15}y^8+$$
$$\frac{232250070233}{180496000614400}\,u_1{}^{11}u^{33}x^{14}y^9+\frac{20925895259}{2820250009600}\,u_1{}^7u^{30}x^{14}y^9+\frac{17694651}{5508300800}\,u_1{}^3u^{27}x^{14}y^9+$$
$$\frac{376170024831}{180496000614400}\,u_1{}^{11}u^{33}x^{13}y^{10}+\frac{16396668349}{1410125004800}\,u_1{}^7u^{30}x^{13}y^{10}+\frac{6564003}{1377075200}\,u_1{}^3u^{27}x^{13}y^{10}+$$
$$\frac{40966206179}{2820250009600}\,u_1{}^7u^{30}x^{12}y^{11}+\frac{238760168259}{90248000307200}\,u_1{}^{11}u^{33}x^{12}y^{11}+\frac{15963783}{2754150400}\,u_1{}^3u^{27}x^{12}y^{11}+$$
$$\frac{238760168259}{90248000307200}\,u_1{}^{11}u^{33}x^{11}y^{12}+\frac{15963783}{2754150400}\,u_1{}^3u^{27}x^{11}y^{12}+\frac{40966206179}{2820250009600}\,u_1{}^7u^{30}x^{11}y^{12}+$$
$$\frac{6564003}{1377075200}\,u_1{}^3u^{27}x^{10}y^{13}+\frac{376170024831}{180496000614400}\,u_1{}^{11}u^{33}x^{10}y^{13}+\frac{16396668349}{1410125004800}\,u_1{}^7u^{30}x^{10}y^{13}+$$
$$\frac{20925895259}{2820250009600}\,u_1{}^7u^{30}x^9y^{14}+\frac{17694651}{5508300800}\,u_1{}^3u^{27}x^9y^{14}+\frac{232250070233}{180496000614400}\,u_1{}^{11}u^{33}x^9y^{14}+$$
$$\frac{6948734177}{11281000038400}\,u_1{}^{11}u^{33}x^8y^{15}+\frac{5275191883}{1410125004800}\,u_1{}^7u^{30}x^8y^{15}+\frac{9699969}{5508300800}\,u_1{}^3u^{27}x^8y^{15}+\frac{1708609}{2203320320}\,u_1{}^3u^{27}x^7y^{16}+$$
$$\frac{40537951099}{18049600061440}\,u_1{}^{11}u^{33}x^7y^{16}+\frac{51770091}{35253125120}\,u_1{}^7u^{30}x^7y^{16}+\frac{21908832441}{360992001228800}\,u_1{}^{11}u^{33}x^6y^{17}+$$
$$\frac{2963547}{11016601600}\,u_1{}^3u^{27}x^6y^{17}+\frac{1237589379}{2820250009600}\,u_1{}^7u^{30}x^6y^{17}+\frac{67991391}{705062502400}\,u_1{}^7u^{30}x^5y^{18}+\frac{785727}{11016601600}\,u_1{}^3u^{27}x^5y^{18}+$$
$$\frac{1052322839}{90248000307200}\,u_1{}^{11}u^{33}x^5y^{18}+\frac{832681}{56405000192}\,u_1{}^7u^{30}x^4y^{19}+\frac{759}{55083008}\,u_1{}^3u^{27}x^4y^{19}+$$

$$\frac{21560155}{14439680049152}\,u_1{}^{11}u^{33}x^4y^{19}+\frac{4054837}{2820250009600}\,u_1{}^{7}u^{30}x^3y^{20}+\frac{41339853}{360992001228800}\,u_1{}^{11}u^{33}x^3y^{20}+\frac{19731}{11016601600}\,u_1{}^{3}u^{27}x^3y^{20}+\frac{31185}{7219840024576}\,u_1{}^{11}u^{33}x^2y^{21}+\frac{297}{2203320320}\,u_1{}^{3}u^{27}x^2y^{21}+\frac{10593}{141012500480}\,u_1{}^{7}u^{30}x^2y^{21}+\frac{3669}{72198400245760}\,u_1{}^{11}u^{33}xy^{22}+\frac{9}{2203320320}\,u_1{}^{3}u^{27}xy^{22}+\frac{99}{70506250240}\,u_1{}^{7}u^{30}xy^{22}+\frac{27}{282300416000}\,u^{27}x^{24}y+\frac{27243}{36134453248000}\,u_1{}^{4}u^{30}x^{24}y+\frac{841779}{4625210015744000}\,u_1{}^{8}u^{33}x^{24}y+\frac{3346629}{5920268820152320000}\,u_1{}^{12}u^{36}x^{24}y+\frac{575991}{18067226624000}\,u_1{}^{4}u^{30}x^{23}y^2+\frac{81}{35287552000}\,u^{27}x^{23}y^2+\frac{170923923}{2960134410076160000}\,u_1{}^{12}u^{36}x^{23}y^2+\frac{13934349}{1156302503936000}\,u_1{}^{8}u^{33}x^{23}y^2+\frac{2169214331}{118405376403046400}\,u_1{}^{12}u^{36}x^{22}y^3+\frac{171}{7057510400}\,u^{27}x^{22}y^3+\frac{1899861}{3613445324800}\,u_1{}^{4}u^{30}x^{22}y^3+\frac{16177491}{57815125196800}\,u_1{}^{8}u^{33}x^{22}y^3+\frac{111177}{22584033280}\,u_1{}^{4}u^{30}x^{21}y^4+\frac{891}{5646008320}\,u^{27}x^{21}y^4+\frac{3367845789}{118405376403046400}\,u_1{}^{12}u^{36}x^{21}y^4+\frac{318278631}{92504200314880}\,u_1{}^{8}u^{33}x^{21}y^4+\frac{102753}{141150208000}\,u^{27}x^{20}y^5+\frac{390384658803}{148006720503808000}\,u_1{}^{12}u^{36}x^{20}y^5+\frac{15445009139}{578151251968000}\,u_1{}^{8}u^{33}x^{20}y^5+\frac{553205877}{18067226624000}\,u_1{}^{4}u^{30}x^{20}y^5+\frac{45129}{17643776000}\,u^{27}x^{19}y^6+\frac{2487063463}{18067226624000}\,u_1{}^{4}u^{30}x^{19}y^6+\frac{9648075035103}{592026882015232000}\,u_1{}^{12}u^{36}x^{19}y^6+\frac{166512467007}{1156302503936000}\,u_1{}^{8}u^{33}x^{19}y^6+\frac{10617387585179}{148006720503808000}\,u_1{}^{12}u^{36}x^{18}y^7+\frac{63069}{8821888000}\,u^{27}x^{18}y^7+\frac{8505395811}{18067226624000}\,u_1{}^{4}u^{30}x^{18}y^7+\frac{434828947917}{1850084006297600}\,u_1{}^{12}u^{36}x^{17}y^8+\frac{9147581181}{7226890649600}\,u_1{}^{4}u^{30}x^{17}y^8+\frac{922779}{56460083200}\,u^{27}x^{17}y^8+\frac{798621815889}{462521001574400}\,u_1{}^{8}u^{33}x^{17}y^8+\frac{349515498367149}{5920268820152320000}\,u_1{}^{12}u^{36}x^{16}y^9+\frac{24710704227}{9033613312000}\,u_1{}^{4}u^{30}x^{16}y^9+\frac{18904422291549}{4625210015744000}\,u_1{}^{8}u^{33}x^{16}y^9+\frac{4394031}{141150208000}\,u^{27}x^{16}y^9+\frac{87125029267}{18067226624000}\,u_1{}^{4}u^{30}x^{15}y^{10}+\frac{343411443813751}{2960134410076160000}\,u_1{}^{12}u^{36}x^{15}y^{10}+\frac{1764897}{35287552000}\,u^{27}x^{15}y^{10}+\frac{4452197960419}{578151251968000}\,u_1{}^{8}u^{33}x^{15}y^{10}+\frac{2411253}{35287552000}\,u^{27}x^{14}y^{11}+\frac{33763390854403}{289075625984000}\,u_1{}^{8}u^{33}x^{14}y^{11}+\frac{535090163089249}{2960134410076160000}\,u_1{}^{12}u^{36}x^{14}y^{11}+\frac{126522847833}{18067226624000}\,u_1{}^{4}u^{30}x^{14}y^{11}+\frac{563031}{7057510400}\,u^{27}x^{13}y^{12}+\frac{30450998781}{3613445324800}\,u_1{}^{4}u^{30}x^{13}y^{12}+\frac{1660485393007}{115630250393600}\,u_1{}^{8}u^{33}x^{13}y^{12}+\frac{16665339017441}{7400336025190400}\,u_1{}^{12}u^{36}x^{13}y^{12}+\frac{16665339017441}{7400336025190400}\,u_1{}^{12}u^{36}x^{12}y^{13}+\frac{1660485393007}{115630250393600}\,u_1{}^{8}u^{33}x^{12}y^{13}+\frac{563031}{7057510400}\,u^{27}x^{12}y^{13}+\frac{30450998781}{3613445324800}\,u_1{}^{4}u^{30}x^{12}y^{13}+\frac{3376339854403}{289075625984000}\,u_1{}^{8}u^{33}x^{11}y^{14}+\frac{126522847833}{18067226624000}\,u_1{}^{4}u^{30}x^{11}y^{14}+\frac{535090163089249}{2960134410076160000}\,u_1{}^{12}u^{36}x^{11}y^{14}+\frac{2411253}{35287552000}\,u^{27}x^{11}y^{14}+\frac{87125029267}{18067226624000}\,u_1{}^{4}u^{30}x^{10}y^{15}+\frac{1764897}{35287552000}\,u^{27}x^{10}y^{15}+\frac{4452197960419}{578151251968000}\,u_1{}^{8}u^{33}x^{10}y^{15}+\frac{343411443813751}{2960134410076160000}\,u_1{}^{12}u^{36}x^{10}y^{15}+\frac{349515498367149}{5920268820152320000}\,u_1{}^{12}u^{36}x^9y^{16}+\frac{4394031}{141150208000}\,u^{27}x^9y^{16}+\frac{18904422291549}{4625210015744000}\,u_1{}^{8}u^{33}x^9y^{16}+\frac{24710704227}{9033613312000}\,u_1{}^{4}u^{30}x^9y^{16}+\frac{798621815889}{462521001574400}\,u_1{}^{8}u^{33}x^8y^{17}+\frac{434828947917}{1850084006297600}\,u_1{}^{12}u^{36}x^8y^{17}+\frac{9147581181}{7226890649600}\,u_1{}^{4}u^{30}x^8y^{17}+\frac{922779}{56460083200}\,u^{27}x^8y^{17}+\frac{10617387585179}{148006720503808000}\,u_1{}^{12}u^{36}x^7y^{18}+\frac{8505395811}{18067226624000}\,u_1{}^{4}u^{30}x^7y^{18}+\frac{63069}{8821888000}\,u^{27}x^7y^{18}+\frac{165002124301}{28907562598400}\,u_1{}^{8}u^{33}x^7y^{18}+\frac{9648075035103}{592026882015232000}\,u_1{}^{12}u^{36}x^6y^{19}+\frac{2487063463}{18067226624000}\,u_1{}^{4}u^{30}x^6y^{19}+\frac{45129}{17643776000}\,u^{27}x^6y^{19}+\frac{166512467007}{1156302503936000}\,u_1{}^{8}u^{33}x^6y^{19}+\frac{390384658803}{148006720503808000}\,u_1{}^{12}u^{36}x^5y^{20}+\frac{553205877}{18067226624000}\,u_1{}^{4}u^{30}x^5y^{20}+\frac{102753}{141150208000}\,u^{27}x^5y^{20}+\frac{15445009139}{578151251968000}\,u_1{}^{8}u^{33}x^5y^{20}+\frac{111177}{22584033280}\,u_1{}^{4}u^{30}x^4y^{21}+\frac{891}{5646008320}\,u^{27}x^4y^{21}+\frac{318278631}{92504200314880}\,u_1{}^{8}u^{33}x^4y^{21}+\frac{3367845789}{118405376403046400}\,u_1{}^{12}u^{36}x^4y^{21}+\frac{16177491}{57815125196800}\,u_1{}^{8}u^{33}x^3y^{22}+\frac{1899861}{3613445324800}\,u_1{}^{4}u^{30}x^3y^{22}+\frac{171}{7057510400}\,u^{27}x^3y^{22}+\frac{2169214331}{118405376403046400}\,u_1{}^{12}u^{36}x^3y^{22}+\frac{13934349}{1156302503936000}\,u_1{}^{8}u^{33}x^2y^{23}+\frac{575991}{18067226624000}\,u_1{}^{4}u^{30}x^2y^{23}+\frac{81}{35287552000}\,u^{27}x^2y^{23}+\frac{170923923}{2960134410076160000}\,u_1{}^{12}u^{36}x^2y^{23}+\frac{27243}{36134453248000}\,u_1{}^{4}u^{30}xy^{24}+\frac{841779}{4625210015744000}\,u_1{}^{8}u^{33}xy^{24}+\frac{3346629}{5920268820152320000}\,u_1{}^{12}u^{36}xy^{24}+\frac{27}{282300416000}\,u^{27}xy^{24}$$

$$\frac{94584622811686561}{150485290084609081359309209600}\,u_1{}^{13}u^{39}x^{26}y+\frac{37017}{289075625984000}\,u_1{}^{5}u^{33}x^{26}y+\frac{8552331506607}{17939244518829474612000}\,u_1u^{30}x^{26}y+\frac{136097746719183963}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^{26}y+\frac{22875935627577698991}{3009705801692181627186184192000}\,u_1{}^{13}u^{39}x^{25}y^2+\frac{97929}{14453781299200}\,u_1{}^{5}u^{33}x^{25}y^2+\frac{111386741765091}{717569780753178984448000}\,u_1u^{30}x^{25}y^2+\frac{4381699990172026977}{2351332657572016896239206400}\,u_1{}^{9}u^{36}x^{25}y^2+\frac{608377318196409561807}{1175666328786008448119603200}\,u_1{}^{9}u^{36}x^{24}y^3+\frac{15141546947948831}{717569780753178984448000}\,u_1u^{30}x^{24}y^3+\frac{10710838070726384100023}{376213225211522703398273024000}\,u_1{}^{13}u^{39}x^{24}y^3+\frac{39367539}{289075625984000}\,u_1{}^{5}u^{33}x^{24}y^3+\frac{61449833958540369}{358784890376589492224000}\,u_1u^{30}x^{23}y^4+\frac{44231816956532153975213}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^{23}y^4+\frac{55212489}{36134453248000}\,u_1{}^{5}u^{33}x^{23}y^4+\frac{19549002072374311637169}{376213225211522703398273024000}\,u_1{}^{13}u^{39}x^{23}y^4+\frac{42502255665108117507376 7}{752426450423045406796546048000}\,u_1{}^{13}u^{39}x^{22}y^5+$$

$$\frac{1627962309}{144537812992000}\,u_1{}^{5}u^{33}x^{22}y^5+\frac{863231849488206 69}{896962225941473730560}\,u_1u^{30}x^{22}y^5+\frac{2016408655807304297213 1}{293916582196502112029900800}\,u_1{}^{9}u^{36}x^{22}y^5+\frac{254347156936194539656483}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^{21}y^6+\frac{8611797711}{144537812992000}\,u_1{}^{5}u^{33}x^{21}y^6+\frac{307556031006368724462666 3}{752426450423045406796546048000}\,u_1{}^{13}u^{39}x^{21}y^6+\frac{36345008453367648 1}{896962225941473730560000}\,u_1u^{30}x^{21}y^6+\frac{9623062910291105 37}{717569780753178984448000}\,u_1u^{30}x^{20}y^7+\frac{5892144234330075210 8603}{293916582196502112029900800}\,u_1{}^{9}u^{36}x^{20}y^7+\frac{6901035491}{28907562598400}\,u_1{}^{5}u^{33}x^{20}y^7+\frac{1983814888728365906003041}{940533063028806758496825600}\,u_1{}^{13}u^{39}x^{20}y^7+\frac{2582748600881644247 7}{717569780753178984448000}\,u_1u^{30}x^{19}y^8+\frac{3390100727}{4516806656000}\,u_1{}^{5}u^{33}x^{19}y^8+\frac{41721965589031259599661867}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^{19}y^8+\frac{611205463259043509999144 37}{752426450423045406796546048000}\,u_1{}^{13}u^{39}x^{19}y^8+\frac{548291942721}{28907562598400}\,u_1{}^{5}u^{33}x^{18}y^9+\frac{5741240435456559299}{717569780753178984448000}\,u_1u^{30}x^{18}y^9+\frac{2319303620636373881053 0693}{1175666328786008448119603200}\,u_1{}^{9}u^{36}x^{18}y^9+\frac{1812679825365986565667977 39}{752426450423045406796546048000}\,u_1{}^{13}u^{39}x^{18}y^9+\frac{536269755416178741 3}{358784890376589492224000}\,u_1u^{30}x^{17}y^{10}+\frac{2115981006988806395933130 9}{376213225211522703398273024000}\,u_1{}^{13}u^{39}x^{17}y^{10}+\frac{22649317947}{5781512519680}\,u_1{}^{5}u^{33}x^{17}y^{10}+\frac{2578588327190547850436229}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^{17}y^{10}+\frac{386800517919}{57815125196800}\,u_1{}^{5}u^{33}x^{16}y^{11}+\frac{185951529255390457629912 61}{235133265757201689623920640 0}\,u_1{}^{9}u^{36}x^{16}y^{11}+\frac{3401718712721210493 9}{143513956150635796889600}\,u_1u^{30}x^{16}y^{11}+\frac{631873778650305449624763 7}{601941160338436325437236838 4}\,u_1{}^{13}u^{39}x^{16}y^{11}+\frac{4282669436951810952921709}{367395727745627640037376000}\,u_1{}^{9}u^{36}x^{15}y^{12}+\frac{595435147501409953025653607}{376213225211522703398273024000}\,u_1{}^{13}u^{39}x^{15}y^{12}+\frac{344030839347}{36134453248000}\,u_1{}^{5}u^{33}x^{15}y^{12}+\frac{576276352202617837 01}{179392445188294746112000}\,u_1u^{30}x^{15}y^{12}+\frac{819867755151}{722689064960 0}\,u_1{}^{5}u^{33}x^{14}y^{13}+\frac{166177711529152122682968 61}{1175666328786008448119603200}\,u_1{}^{9}u^{36}x^{14}y^{13}+\frac{670210682311777280 1}{179392445188294746112000}\,u_1u^{30}x^{14}y^{13}+\frac{583991119138462394573005 93}{300970580169218162718618419200}\,u_1{}^{13}u^{39}x^{14}y^{13}+\frac{670210682311777280 1}{179392445188294746112000}\,u_1u^{30}x^{13}y^{14}+\frac{583991119138462394573005 93}{300970580169218162718618419200}\,u_1{}^{13}u^{39}x^{13}y^{14}+\frac{819867551 51}{722689064960 0}\,u_1{}^{5}u^{33}x^{13}y^{14}+\frac{166177711529152122682968 61}{1175666328786008448119603200}\,u_1{}^{9}u^{36}x^{13}y^{14}+\frac{344030839347}{36134453248000}\,u_1{}^{5}u^{33}x^{12}y^{15}+\frac{428266943695181095292170 9}{367395727745627640037376000}\,u_1{}^{9}u^{36}x^{12}y^{15}+\frac{595435147501409953025653607}{376213225211522703398273024000}\,u_1{}^{13}u^{39}x^{12}y^{15}+\frac{576276352202617837 01}{179392445188294746112000}\,u_1u^{30}x^{12}y^{15}+\frac{185951529255390457629912 61}{235133265757201689623920640 0}\,u_1{}^{9}u^{36}x^{11}y^{16}+\frac{631873778650305449624763 7}{601941160338436325437236838 4}\,u_1{}^{13}u^{39}x^{11}y^{16}+\frac{3401718712721210493 9}{143513956150635796889600}\,u_1u^{30}x^{11}y^{16}+\frac{211598100698880639593331 09}{376213225211522703398273024000}\,u_1{}^{13}u^{39}x^{10}y^{17}+\frac{536269755416178741 3}{358784890376589492224000}\,u_1u^{30}x^{10}y^{17}+\frac{2264931794 7}{5781512519680}\,u_1{}^{5}u^{33}x^{10}y^{17}+\frac{2578588327190547850436229}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^{10}y^{17}+\frac{574124043545655299}{717569780753178984448000}\,u_1u^{30}x^9y^{18}+\frac{2319303620636373881053 0693}{1175666328786008448119603200}\,u_1{}^{9}u^{36}x^9y^{18}+\frac{1812679825365986565667977 39}{752426450423045406796546048000}\,u_1{}^{13}u^{39}x^9y^{18}+\frac{548291942721}{28907562598400}\,u_1{}^{5}u^{33}x^9y^{18}+\frac{2582748600881644247 7}{717569780753178984448000}\,u_1u^{30}x^8y^{19}+\frac{4172196358903125959661867}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^8y^{19}+\frac{611205463259043509999144 37}{752426450423045406796546048000}\,u_1{}^{13}u^{39}x^8y^{19}+\frac{3390100727}{4516806656000}\,u_1{}^{5}u^{33}x^8y^{19}+\frac{962306291029110537}{717569780753178984448000}\,u_1u^{30}x^7y^{20}+\frac{5892144234330075210 8603}{293916582196502112029900800}\,u_1{}^{9}u^{36}x^7y^{20}+\frac{1983814888728365906030 41}{940533063028806758496825600}\,u_1{}^{13}u^{39}x^7y^{20}+\frac{6901035491}{2890756259840 0}\,u_1{}^{5}u^{33}x^7y^{20}+\frac{3634500845336764 81}{896962225941473730560000}\,u_1u^{30}x^6y^{21}+\frac{2543471569361945396548 3}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^6y^{21}+\frac{8611797711}{144537812992000}\,u_1{}^{5}u^{33}x^6y^{21}+\frac{307556031006368724462666 3}{752426450423045406796546048000}\,u_1{}^{13}u^{39}x^6y^{21}+\frac{16279623091}{293916582196502112029900800}\,u_1{}^{9}u^{36}x^5y^{22}+\frac{144537812992000}{}\,u_1{}^{5}u^{33}x^5y^{22}+\frac{425022556651081175073767}{752426450423045406796546048000}\,u_1{}^{13}u^{39}x^5y^{22}+\frac{863231849488206 69}{896962225941473730560}\,u_1u^{30}x^5y^{22}+\frac{4423181695653215397213}{587833164393004224059801600}\,u_1{}^{9}u^{36}x^4y^{23}+\frac{1954900207237431163 7169}{376213225211522703398273024000}\,u_1{}^{13}u^{39}x^4y^{23}+\frac{614498339585405 39}{358784890376589492224000}\,u_1u^{30}x^4y^{23}+\frac{55212489}{36134453248000}\,u_1{}^{5}u^{33}x^4y^{23}+\frac{1071083807072638410023}{376213225211522703398273024000}\,u_1{}^{13}u^{39}x^3y^{24}+\frac{15141546947948831}{717569780753178984448000}\,u_1u^{30}x^3y^{24}+\frac{39367539}{289075625984000}\,u_1{}^{5}u^{33}x^3y^{24}+\frac{608377318196409561807}{1175666328786008448119603200}\,u_1{}^{9}u^{36}x^3y^{24}+\frac{2287593562757769899 1}{300970580169218162718618419200}\,u_1{}^{13}u^{39}x^2y^{25}+\frac{111386741765091}{717569780753178984448000}\,u_1u^{30}x^2y^{25}+\frac{4381699990172026977}{2351332657572016896239206400}\,u_1{}^{9}u^{36}x^2y^{25}+\frac{97929}{14453781299200}\,u_1{}^{5}u^{33}x^2y^{25}+\frac{945846228116865 61}{150485290084609081359309209600}\,u_1{}^{13}u^{39}xy^{26}+\frac{136097746719183963}{587833164393004224059801600}\,u_1{}^{9}u^{36}xy^{26}+\frac{8552331506607}{17939244518829474612000}\,u_1u^{30}xy^{26}+\frac{37017}{289075625984000}\,u_1{}^{5}u^{33}xy^{26}$$

Some values of the n-series for $F_{E_2^*}(x,y)$ at $p=3$ are:

$$[2]_{E_2^*}(x) = (2\,x + 1/4\,u_1u^3x^3 + 1/8\,{u_1}^2u^6x^5 + \tfrac{5}{64}\,{u_1}^3u^9x^7 + (\tfrac{17}{656}\,u^9 + \tfrac{1139}{20992}\,{u_1}^4u^{12})x^9 + (\tfrac{277}{6560}\,u_1u^{12} + \tfrac{4257}{104960}\,{u_1}^5u^{15})x^{11} + (\tfrac{1407}{26240}\,{u_1}^2u^{15} + \tfrac{53443}{1679360}\,{u_1}^6u^{18})x^{13} + (\tfrac{26013}{419840}\,{u_1}^3u^{18} + \tfrac{347231}{13434880}\,{u_1}^7u^{21})x^{15} + (\tfrac{5932661}{275415040}\,{u_1}^8u^{24} + \tfrac{234445}{3442688}\,{u_1}^4u^{21} + \tfrac{51}{16810}\,u^{18})x^{17} + (\tfrac{201802961}{11016601600}\,{u_1}^9u^{27} + \tfrac{25017681}{344268800}\,{u_1}^5u^{24} + \tfrac{415801}{43033600}\,u_1u^{21})x^{19} + (\tfrac{174396573}{11016601600}\,{u_1}^{10}u^{30} + \tfrac{838301471}{110166001600}\,{u_1}^6u^{27} + \tfrac{6831589}{344268800}\,{u_1}^2u^{24})x^{21} + (\tfrac{2443375297}{176265625600}\,{u_1}^{11}u^{33} + \tfrac{433331597}{5508300800}\,{u_1}^7u^{30} + \tfrac{11476361}{344268800}\,{u_1}^3u^{27})x^{23} + (\tfrac{2838085815991}{231260500787200}\,{u_1}^{12}u^{36} + \tfrac{145621864191}{1806722662400}\,{u_1}^8u^{33} + \tfrac{5622974101}{112920166400}\,{u_1}^4u^{30} + \tfrac{14127}{27568400}\,u^{27})x^{25} + (\tfrac{311044272969}{4516806656000}\,{u_1}^5u^{33} + \tfrac{2181342973115489277763}{896962225941473730560 00}\,u_1u^{30} + \tfrac{941885896254937320712897}{114811164920508637511 68000}\,{u_1}^9u^{36} + \tfrac{32231933173696755967497999}{2939165821965021120299008000}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[3]_{E_2^*}(x) = (3\,x + u_1u^3x^3 + \tfrac{9}{8}\,{u_1}^2u^6x^5 + \tfrac{105}{64}\,{u_1}^3u^9x^7 + (u^9 + \tfrac{1377}{512}\,{u_1}^4u^{12})x^9 + (\tfrac{27063}{6560}\,u_1u^{12} + \tfrac{3985389}{839680}\,{u_1}^5u^{15})x^{11} + (\tfrac{335013}{26240}\,{u_1}^2u^{15} + \tfrac{59092773}{6717440}\,{u_1}^6u^{18})x^{13} + (\tfrac{14888197}{419840}\,{u_1}^3u^{18} + \tfrac{907229781}{53739520}\,{u_1}^7u^{21})x^{15} + (\tfrac{2859206553}{85983232}\,{u_1}^8u^{24} + \tfrac{2444787}{26240}\,{u_1}^4u^{21} + \tfrac{19683}{6560}\,u^{18})x^{17} + (\tfrac{47125533252921}{705062502400}\,{u_1}^9u^{27} + \tfrac{1305084701079}{5508300800}\,{u_1}^5u^{24} + \tfrac{1038400449}{43033600}\,u_1u^{21})x^{19} + (\tfrac{770136329076849}{5640500019200}\,{u_1}^{10}u^{30} + \tfrac{13001825049983}{22033203200}\,{u_1}^6u^{27} + \tfrac{42093100711}{344268800}\,{u_1}^2u^{24})x^{21} + (\tfrac{12753311865572673}{45124000153600}\,{u_1}^{11}u^{33} + \tfrac{510885470342637}{352531251200}\,{u_1}^7u^{30} + \tfrac{68886052491}{1377075200}\,{u_1}^3u^{27})x^{23} + (\tfrac{213532277359138857}{360992001228800}\,{u_1}^{12}u^{36} + \tfrac{2484550168220583}{705062502400}\,{u_1}^8u^{33} + \tfrac{19896533323347}{11016601600}\,{u_1}^4u^{30} + \tfrac{559581129}{43033600}\,u^{27})x^{25} + (\tfrac{217057782896487363}{36134453248000}\,{u_1}^5u^{33} + \tfrac{4393466561576 7}{282300416000}\,u_1u^{30} + \tfrac{39346846824183834919}{4625210015744000}\,{u_1}^9u^{36} + \tfrac{739786458803938484949}{592026882015232000}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[4]_{E_2^*}(x) = (4\,x + 5/2\,u_1u^3x^3 + 5\,{u_1}^2u^6x^5 + \tfrac{105}{8}\,{u_1}^3u^9x^7 + (\tfrac{4369}{328}\,u^9 + \tfrac{25483}{656}\,{u_1}^4u^{12})x^9 + (\tfrac{16657}{164}\,u_1u^{12} + \tfrac{162411}{1312}\,{u_1}^5u^{15})x^{11} + (\tfrac{376285}{656}\,{u_1}^2u^{15} + \tfrac{4348865}{10496}\,{u_1}^6u^{18})x^{13} + (\tfrac{30374793}{10496}\,{u_1}^3u^{18} + \tfrac{30146331}{20992}\,{u_1}^7u^{21})x^{15} + (\tfrac{21986377399}{4303360}\,{u_1}^8u^{24} + \tfrac{7414882441}{537920}\,{u_1}^4u^{21} + \tfrac{3355392}{8405}\,u^{18})x^{17} + (\tfrac{1277147679637}{68853760}\,{u_1}^9u^{27} + \tfrac{273189173479}{4303360}\,{u_1}^5u^{24} + \tfrac{6376771493}{1075840}\,u_1u^{21})x^{19} + (\tfrac{9424797774483}{137707520}\,{u_1}^{10}u^{30} + \tfrac{19703222881573}{68853760}\,{u_1}^6u^{27} + \tfrac{473636125993}{8606720}\,{u_1}^2u^{24})x^{21} + (\tfrac{35238975769269}{137707520}\,{u_1}^{11}u^{33} + \tfrac{5471196084359}{4303360}\,{u_1}^7u^{30} + \tfrac{883847223821}{2151680}\,{u_1}^3u^{27})x^{23} + (\tfrac{436956342802597457}{451680665600}\,{u_1}^{12}u^{36} + \tfrac{78920381224270903}{14115020800}\,{u_1}^8u^{33} + \tfrac{9523127148241757}{3528755200}\,{u_1}^4u^{30} + \tfrac{29777845728}{1723025}\,u^{27})x^{25} + (\tfrac{184134014519927607}{11292016640}\,{u_1}^5u^{33} + \tfrac{34237785266207481617103567}{89696222594147373056}\,u_1u^{30} + \tfrac{70054621473312102006205177 7697}{28702791230127159377920}\,{u_1}^9u^{36} + \tfrac{21191093142888341303660086 9007}{57405582460254318755840}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[5]_{E_2^*}(x) = (5\,x + 5\,u_1u^3x^3 + \tfrac{125}{8}\,{u_1}^2u^6x^5 + \tfrac{4125}{64}\,{u_1}^3u^9x^7 + (\tfrac{4069}{41}\,u^9 + \tfrac{6300653}{20992}\,{u_1}^4u^{12})x^9 + (\tfrac{1578775}{1312}\,u_1u^{12} + \tfrac{252741325}{167936}\,{u_1}^5u^{15})x^{11} + (\tfrac{1375325}{128}\,{u_1}^2u^{15} + \tfrac{259741325}{32768}\,{u_1}^6u^{18})x^{13} + (\tfrac{7181524725}{83968}\,{u_1}^3u^{18} + \tfrac{464673337925}{10747904}\,{u_1}^7u^{21})x^{15} + (\tfrac{853297543153125}{3525312512}\,{u_1}^8u^{24} + \tfrac{552692121875}{860672}\,{u_1}^4u^{21} + \tfrac{953671875}{53792}\,u^{18})x^{17} + (\tfrac{39001136346544485}{28202500096}\,{u_1}^9u^{27} + \tfrac{102667203927511 5}{220332032}\,{u_1}^5u^{24} + \tfrac{720128905165}{1721344}\,u_1u^{21})x^{19} + (\tfrac{181172119839426100 5}{225620000768}\,{u_1}^{10}u^{30} + \tfrac{29158089874118835}{881328128}\,{u_1}^6u^{27} + \tfrac{84722631941195}{13770752}\,{u_1}^2u^{24})x^{21} + (\tfrac{852822162408891481 25}{1804960006144}\,{u_1}^{11}u^{33} + \tfrac{3264187049212145625}{14101250048}\,{u_1}^7u^{30} + \tfrac{3999004962349375}{55083008}\,{u_1}^3u^{27})x^{23} + (\tfrac{166418297914736067988125}{592026882015232}\,{u_1}^{12}u^{36} + \tfrac{1853512919989233156875}{1156302503936}\,{u_1}^8u^{33} + \tfrac{136073423077709237 5}{18067226624}\,{u_1}^4u^{30} + \tfrac{322857411703125}{70575104}\,u^{27})x^{25} + (\tfrac{2075675556096687142 67}{289075625984}\,{u_1}^5u^{33} + \tfrac{1152081775043543592001474583 23}{717569780753178984448}\,u_1u^{30} + \tfrac{1295225449536567634435058672 54050659}{1175666328786008448119 6032}\,{u_1}^9u^{36} + \tfrac{2540245213066459950045309659673580745}{150485290084609081359309 2096}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[6]_{E_2^*}(x) = (6\,x + \tfrac{35}{4}\,u_1u^3x^3 + \tfrac{315}{8}\,{u_1}^2u^6x^5 + \tfrac{15015}{64}\,{u_1}^3u^9x^7 + (\tfrac{335923}{656}\,u^9 + \tfrac{33148801}{20992}\,{u_1}^4u^{12})x^9 + (\tfrac{11841291}{1312}\,u_1u^{12} + \tfrac{240250311}{20992}\,{u_1}^5u^{15})x^{11} + (\tfrac{612891825}{5248}\,{u_1}^2u^{15} + \tfrac{29265062085}{335872}\,{u_1}^6u^{18})x^{13} + (\tfrac{112988171779}{83968}\,{u_1}^3u^{18} + \tfrac{1845812089513}{2686976}\,{u_1}^7u^{21})x^{15} + (\tfrac{1531123674739911}{275415040}\,{u_1}^8u^{24} + \tfrac{25161858159987}{17213440}\,{u_1}^4u^{21} + \tfrac{6611972409}{16810}\,u^{18})x^{17} + (\tfrac{101160295529913039}{2203320320}\,{u_1}^9u^{27} + \tfrac{1056362480145291 9}{68853760}\,{u_1}^5u^{24} + \tfrac{116088629021799}{8606720}\,u_1u^{21})x^{19} + (\tfrac{424550437647991949}{1101660160}\,{u_1}^{10}u^{30} + \tfrac{34710786203325746 01}{2203320320}\,{u_1}^6u^{27} + \tfrac{19811709154694779}{68853760}\,{u_1}^2u^{24})x^{21} + (\tfrac{115553443420495034199}{3525312512 0}\,{u_1}^{11}u^{33} + \tfrac{17559827441886457539}{1101660160}\,{u_1}^7u^{30} + \tfrac{338769181815606927}{68853760}\,{u_1}^3u^{27})x^{23} + (\tfrac{651903027485276665865349}{2312605007872 00}\,{u_1}^{12}u^{36} + \tfrac{28835657311823006367 5949}{1806722662400}\,{u_1}^8u^{33} + \tfrac{8346595513975034632239}{112920166400}\,{u_1}^4u^{30} + \tfrac{12031036999867053}{27568400}\,u^{27})x^{25} + (\tfrac{184300851697665735180883}{180672266240}\,{u_1}^5u^{33} + \tfrac{79848849117240795848149412426537}{358784890376589492224 0}\,u_1u^{30} + \tfrac{145675447472322467975031159066163563}{9184893193640691000934 4}\,{u_1}^9u^{36} + \tfrac{28768407557479331747483561469887102837}{1175666328786008448119 60320}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[7]_{E_2^*}(x) = (7\,x + 14\,u_1u^3x^3 + \tfrac{343}{4}\,{u_1}^2u^6x^5 + \tfrac{22295}{32}\,{u_1}^3u^9x^7 + (\tfrac{84070}{41}\,u^9 + \tfrac{67144735}{10496}\,{u_1}^4u^{12})x^9 + (\tfrac{162255121}{3280}\,u_1u^{12} + \tfrac{26554559563}{419840}\,{u_1}^5u^{15})x^{11} + (\tfrac{11474295651}{13120}\,{u_1}^2u^{15} + \tfrac{2206339129771}{3358720}\,{u_1}^6u^{18})x^{13} + (\tfrac{2888162245899}{209920}\,{u_1}^3u^{18} + \tfrac{189842247210427}{26869760}\,{u_1}^7u^{21})x^{15} + (\tfrac{68746572032759569 9}{8813281280}\,{u_1}^8u^{24} + \tfrac{877914416424493}{4303360}\,{u_1}^4u^{21} + \tfrac{145394046021}{26896}\,u^{18})x^{17} + (\tfrac{309819021267701332527}{352531251200}\,{u_1}^9u^{27} + \tfrac{8048158064067371873}{2754150400}\,{u_1}^5u^{24} + \tfrac{5458739032839463}{21516800}\,u_1u^{21})x^{19} + (\tfrac{2838152136028192172846 3}{2820250009600}\,{u_1}^{10}u^{30} + \tfrac{4510986064807078913 21}{11016601600}\,{u_1}^6u^{27} + \tfrac{1273571189554579657}{172134400}\,{u_1}^2u^{24})x^{21} + (\tfrac{26346232695177121143888 31}{22562000076800}\,{u_1}^{11}u^{33} + \tfrac{9964698574827857842 9939}{176265625600}\,{u_1}^7u^{30} + \tfrac{11901237597979318 2677}{688537600}\,{u_1}^3u^{27})x^{23} + (\tfrac{2027722290213309791949450379}{1480067205038080}\,{u_1}^{12}u^{36} + \tfrac{2232761096189229434588468 81}{2890756259840}\,{u_1}^8u^{33} + \tfrac{160184069310311123743169}{45168066560}\,{u_1}^4u^{30} + \tfrac{3632060021023534863}{176437760}\,u^{27})x^{25} + (\tfrac{1207346259938199937945018021}{18067226624000}\,{u_1}^5u^{33} + \tfrac{64430179012743169895594740436219149}{4484811129707368528000}\,u_1u^{30} + \tfrac{7695270667280116484244044923748218808729 3}{7347914554912552800747520 00}\,{u_1}^9u^{36} + \tfrac{1525954565018618477486235427106248708302903}{940533063028806758495682560 00}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[8]_{E_2^*}(x) = (8\,x + 21\,u_1u^3x^3 + 168\,{u_1}^2u^6x^5 + 1785\,{u_1}^3u^9x^7 + (\tfrac{1118481}{164}\,u^9 + \tfrac{28126273}{1312}\,{u_1}^4u^{12})x^9 + (\tfrac{44214954}{205}\,u_1u^{12} + \tfrac{227339441}{820}\,{u_1}^5u^{15})x^{11} + (\tfrac{2046995097}{410}\,{u_1}^2u^{15} + \tfrac{12353716291}{3280}\,{u_1}^6u^{18})x^{13} + (\tfrac{674326988013}{6560}\,{u_1}^3u^{18} + \tfrac{2780808010589}{52480}\,{u_1}^7u^{21})x^{15} + (\tfrac{102906743600997}{134480}\,{u_1}^8u^{24} + \tfrac{33526482113481}{16810}\,{u_1}^4u^{21} + \tfrac{439804624896}{8405}\,u^{18})x^{17} + (\tfrac{485307070819007969}{43033600}\,{u_1}^9u^{27} + \tfrac{1005323601991991 73}{2689600}\,{u_1}^5u^{24} + \tfrac{2164327473974841}{672400}\,u_1u^{21})x^{19} + (\tfrac{58152815793625753361}{344268800}\,{u_1}^{10}u^{30} + \tfrac{14744097433575523167}{21516800}\,{u_1}^6u^{27} + \tfrac{661407536827946349}{5379200}\,{u_1}^2u^{24})x^{21} + (\tfrac{55165899284188923489}{21516800}\,{u_1}^{11}u^{33} + \tfrac{16644128043138252153}{1344800}\,{u_1}^7u^{30} + \tfrac{126443862034017488 1}{336200}\,{u_1}^3u^{27})x^{23} + (\tfrac{27768864172487415397410 9}{7057510400}\,{u_1}^{12}u^{36} + \tfrac{97576977375994079299497}{441094400}\,{u_1}^8u^{33} + \tfrac{11138526044792644063293}{110273600}\,{u_1}^4u^{30} + \tfrac{99919855944361504}{1723025}\,u^{27})x^{25} + (\tfrac{879009574820251173090194 97}{35287552000}\,{u_1}^5u^{33} + \tfrac{74342748901519516492982275699303763}{140150347803355270400 0}\,u_1u^{30} + \tfrac{351956179440356800261212392669090836961}{896962225941473730560 00}\,{u_1}^9u^{36} + \tfrac{437359907291245184019027826403000396591}{717569780753178984448000}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[9]_{E_2^*}(x) = (9\,x + 30\,u_1u^3x^3 + \tfrac{1215}{4}\,{u_1}^2u^6x^5 + \tfrac{130815}{32}\,{u_1}^3u^9x^7 + (19686\,u^9 + \tfrac{15922831}{256}\,{u_1}^4u^{12})x^9 + (\tfrac{518174901}{656}\,u_1u^{12} + \tfrac{85568408343}{83968}\,{u_1}^5u^{15})x^{11} + (\tfrac{60825823695}{2624}\,{u_1}^2u^{15} + \tfrac{11781643784535}{671744}\,{u_1}^6u^{18})x^{13} + (\tfrac{25394783254839}{41984}\,{u_1}^3u^{18} + \tfrac{1679929256036007}{5373952}\,{u_1}^7u^{21})x^{15} + (\tfrac{12294274437033388019}{214958080}\,{u_1}^8u^{24} + \tfrac{1560936149181441}{104960}\,{u_1}^4u^{21} + \tfrac{1271126624409}{3280}\,u^{18})x^{17} + (\tfrac{752910399981315168929 1}{70506250240}\,{u_1}^9u^{27} + \tfrac{19453345823314907909}{550830080}\,{u_1}^5u^{24} + \tfrac{130151503609663779}{4303360}\,u_1u^{21})x^{19} + (\tfrac{11429880574212668398844 91}{564050001920}\,{u_1}^{10}u^{30} + \tfrac{18074908551537035448957}{2203320320}\,{u_1}^6u^{27} + \tfrac{5043619785367827018 9}{34426880}\,{u_1}^2u^{24})x^{21} + (\tfrac{17583132472494785642474 0379}{4512400015360}\,{u_1}^{11}u^{33} + \tfrac{66183031769035709116357 11}{35253125120}\,{u_1}^7u^{30} + \tfrac{78230816736344089525 53}{137707520}\,{u_1}^3u^{27})x^{23} + (\tfrac{13674602288042660694577205 3031}{180496000614400}\,{u_1}^{12}u^{36} + \tfrac{14987828275493333438898901389}{352531251200}\,{u_1}^8u^{33} + \tfrac{10652407386037393248509301}{5508300800}\,{u_1}^4u^{30} + \tfrac{2371106086504572233 07}{21516800}\,u^{27})x^{25} + (\tfrac{43682128390130941653136010757}{722689064960}\,{u_1}^5u^{33} + \tfrac{72200602505256274132666 09}{5646008320}\,u_1u^{30} + \tfrac{88384243549699201795410585935649}{92504200314880}\,{u_1}^9u^{36} + \tfrac{17604831403179110812274606447427}{11840537640304640}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[10]_{E_2^*}(x) = (10\,x + \tfrac{165}{4}\,u_1u^3x^3 + \tfrac{4125}{8}\,{u_1}^2u^6x^5 + \tfrac{548625}{64}\,{u_1}^3u^9x^7 + (\tfrac{33333333}{656}\,u^9 + \tfrac{3382535431}{20992}\,{u_1}^4u^{12})x^9 + (\tfrac{3308333325}{1312}\,u_1u^{12} + \tfrac{68467553825}{20992}\,{u_1}^5u^{15})x^{11} + (\tfrac{480016665975}{5248}\,{u_1}^2u^{15} + \tfrac{23293374104275}{335872}\,{u_1}^6u^{18})x^{13} + (\tfrac{247659233075925}{83968}\,{u_1}^3u^{18} + \tfrac{4103402976328975}{2686976}\,{u_1}^7u^{21})x^{15} + (\tfrac{19014175380924281 25}{55083008}\,{u_1}^8u^{24} + \tfrac{308489837546240625}{3442688}\,{u_1}^4u^{21} + \tfrac{7812499921875}{3362}\,u^{18})x^{17} + (\tfrac{35088284327527217 7045}{440664064}\,{u_1}^9u^{27} + \tfrac{3620736315272751724 5}{13770752}\,{u_1}^5u^{24} + \tfrac{3860555531244444 45}{1721344}\,u_1u^{21})x^{19} + (\tfrac{10282744157564752908 65}{55083008}\,{u_1}^{10}u^{30} + \tfrac{3325343926419750167 9715}{440664064}\,{u_1}^6u^{27} + \tfrac{1849519991655400001 85}{13770752}\,{u_1}^2u^{24})x^{21} + (\tfrac{31268878305915592949681 25}{7050625024}\,{u_1}^{11}u^{33} + \tfrac{4701285530491602036806 25}{220332032}\,{u_1}^7u^{30} + \tfrac{88647183022716216 73125}{13770752}\,{u_1}^3u^{27})x^{23} + (\tfrac{98544756922612999514325376875}{9250420031488}\,{u_1}^{12}u^{36} + \tfrac{43145568483392668075038918 75}{72268906496}\,{u_1}^8u^{33} + \tfrac{1223282649246213203838506 25}{4516806656}\,{u_1}^4u^{30} + \tfrac{16927083111979161875}{1102736}\,u^{27})x^{25} + (\tfrac{37799249725469890176235228017}{36134453248}\,{u_1}^5u^{33} + \tfrac{15807229757701988227793347034556921619}{71756978075317898444 8}\,u_1u^{30} + \tfrac{15225816681490029984232364496561142964 6213}{9184893193640691000934 4}\,{u_1}^9u^{36} + \tfrac{607335308599671629956236581498449249250635 4599}{2351332657572016896239 2064}\,{u_1}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[11]_{E_2^*}(x) =$$
$$(11\,x+55\,u_1u^3x^3+\tfrac{6655}{8}\,u_1{}^2u^6x^5+\tfrac{1071455}{64}\,u_1{}^3u^9x^7+(\tfrac{4912391}{41}\,u^9+\tfrac{7997449647}{20992}\,u_1{}^4u^{12})x^9+(\tfrac{9451440317}{1312}\,u_1u^{12}+$$
$$\tfrac{1567822834831}{167936}\,u_1{}^5u^{15})x^{11}+(\tfrac{1660790980695}{5248}\,u_1{}^2u^{15}+\tfrac{322871042383175}{1343488}\,u_1{}^6u^{18})x^{13}+(\tfrac{1037561453757543}{83968}\,u_1{}^3u^{18}+$$
$$\tfrac{68858329726111959}{10747904}\,u_1{}^7u^{21})x^{15}+(\tfrac{3090267467497002013683}{17626562560}\,u_1{}^8u^{24}+\tfrac{195605636434616231}{4303360}\,u_1{}^4u^{21}+$$
$$\tfrac{3159043913383413}{268960}\,u^{18})x^{17}+(\tfrac{690394606817712041742387}{141012500480}\,u_1{}^9u^{27}+\tfrac{17789875839862477078013}{1101660160}\,u_1{}^5u^{24}+$$
$$\tfrac{11820440334551198603}{8606720}\,u_1u^{21})x^{19}+(\tfrac{15676215218595087320290826 7}{1128100003840}\,u_1{}^{10}u^{30}+\tfrac{24726842868442600929 7909}{4406640640}\,u_1{}^6u^{27}+$$
$$\tfrac{68591829260166666140093}{68853760}\,u_1{}^2u^{24})x^{21}+(\tfrac{3606962723791246063086131 23923}{9024800030720}\,u_1{}^{11}u^{33}+\tfrac{1354373885745287701928108607}{70506250240}\,u_1{}^7u^{30}+$$
$$\tfrac{15925917840457390706979 61}{275415040}\,u_1{}^3u^{27})x^{23}+(\tfrac{1720244478793591587031461535645607}{14800672050380800}\,u_1{}^{12}u^{36}+$$
$$\tfrac{1881064634418653241570955480 5633}{28907562598400}\,u_1{}^8u^{33}+\tfrac{1330650229463109478098066276 97}{451680665600}\,u_1{}^4u^{30}+$$
$$\tfrac{2934399508433101898932479}{1764377600}\,u^{27})x^{25}+(\tfrac{1991511160772662007965117834126 1}{1445378129920}\,u_1{}^5u^{33}+$$
$$\tfrac{1037468755700003981481948593441543424341}{3587848903765894922240}\,u_1u^{30}+\tfrac{1285880349628946384983762986587979517947023749}{5878331643930042240598016 0}\,u_1{}^9u^{36}+$$
$$\tfrac{5134079136202514645525876387452824420457851619}{1504852900846090813593092096}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[12]_{E_2^*}(x) =$$
$$(12\,x+\tfrac{143}{2}\,u_1u^3x^3+1287\,u_1{}^2u^6x^5+\tfrac{246675}{8}\,u_1{}^3u^9x^7+(\tfrac{85996339}{328}\,u^9+\tfrac{548013323}{656}\,u_1{}^4u^{12})x^9+(\tfrac{15398719479}{820}\,u_1u^{12}+$$
$$\tfrac{159880935357}{6560}\,u_1{}^5u^{15})x^{11}+(\tfrac{3222336576459}{3280}\,u_1{}^2u^{15}+\tfrac{39199452113679}{52480}\,u_1{}^6u^{18})x^{13}+(\tfrac{2397101432991551}{52480}\,u_1{}^3u^{18}+$$
$$\tfrac{2488281076259407}{104960}\,u_1{}^7u^{21})x^{15}+(\tfrac{3323774629692794277}{4303360}\,u_1{}^8u^{24}+\tfrac{107616336640613786 7}{537920}\,u_1{}^4u^{21}+\tfrac{433322480777472}{8405}\,u^{18})x^{17}+$$
$$(\tfrac{8840681330956075409523}{344268800}\,u_1{}^9u^{27}+\tfrac{1820841541608425548641}{21516800}\,u_1{}^5u^{24}+\tfrac{3862925478633907814 7}{5379200}\,u_1u^{21})x^{19}+$$
$$(\tfrac{5974789757140368015 45303}{688537600}\,u_1{}^{10}u^{30}+\tfrac{1205321954325922522292203}{344268800}\,u_1{}^6u^{27}+\tfrac{2669744102667554473718 3}{43033600}\,u_1{}^2u^{24})x^{21}+$$
$$(\tfrac{2045908837335240287361 7947}{688537600}\,u_1{}^{11}u^{33}+\tfrac{3070460121458346150702597}{215168 00}\,u_1{}^7u^{30}+\tfrac{4613687837718220807461 63}{10758400}\,u_1{}^3u^{27})x^{23}+$$
$$(\tfrac{4646737005627216311691111035827}{451680665600}\,u_1{}^{12}u^{36}+\tfrac{8123735648631403660785713 3733}{14115020800}\,u_1{}^8u^{33}+$$
$$\tfrac{9180678061713025280318918727}{3528755200}\,u_1{}^4u^{30}+\tfrac{2523093287356075620700 8}{1723025}\,u^{27})x^{25}+(\tfrac{4090266873872129976625540264 3669}{282300416000}\,u_1{}^5u^{33}+$$
$$\tfrac{3400412347749364711426153364779938641280 1}{1121202782426842163200 0}\,u_1u^{30}+\tfrac{1652941417967194420963526935785129239478646547}{7175697807531 78984448000}\,u_1{}^9u^{36}+$$
$$\tfrac{5159693246494051787823829109629931979505138 3}{1435139561506357968960 00}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[13]_{E_2^*}(x) = (13\,x+91\,u_1u^3x^3+\tfrac{15379}{8}\,u_1{}^2u^6x^5+\tfrac{3460275}{64}\,u_1{}^3u^9x^7+(\tfrac{22092707}{41}\,u^9+\tfrac{36098900019}{20992}\,u_1{}^4u^{12})x^9+$$
$$(\tfrac{297367836493}{6560}\,u_1u^{12}+\tfrac{49455912785279}{839680}\,u_1{}^5u^{15})x^{11}+(\tfrac{73068756427303}{26240}\,u_1{}^2u^{15}+\tfrac{14235119281173063}{6717440}\,u_1{}^6u^{18})x^{13}+$$
$$(\tfrac{6382013288400176 7}{419840}\,u_1{}^3u^{18}+\tfrac{4243270936524738391}{53739520}\,u_1{}^7u^{21})x^{15}+(\tfrac{5323331188007968540 2503}{17626562560}\,u_1{}^8u^{24}+$$
$$\tfrac{1681947951232486182 7}{2151680}\,u_1{}^4u^{21}+\tfrac{5406509942985524 1}{268960}\,u^{18})x^{17}+(\tfrac{8311291307460863538175277 1}{705062502400}\,u_1{}^9u^{27}+$$
$$\tfrac{2138308080641248688474029}{5508300800}\,u_1{}^5u^{24}+\tfrac{1415184014386003196699}{43033600}\,u_1u^{21})x^{19}+(\tfrac{2637706044125758149243888 2699}{5640500019200}\,u_1{}^{10}u^{30}+$$
$$\tfrac{4154506116006986721587 6133}{220332032 00}\,u_1{}^6u^{27}+\tfrac{1148557771614847444329661}{344268800}\,u_1{}^2u^{24})x^{21}+$$
$$(\tfrac{8482837584849285192937722002683}{45124000153600}\,u_1{}^{11}u^{33}+\tfrac{3180784879948620146946374537 27}{352531251200}\,u_1{}^7u^{30}+$$
$$\tfrac{3729070673587218520018795 61}{1377075200}\,u_1{}^3u^{27})x^{23}+(\tfrac{1130925959846534797975460234672141 9}{14800672050380800}\,u_1{}^{12}u^{36}+$$
$$\tfrac{1235004756563467366760858564031861}{28907562598400}\,u_1{}^8u^{33}+\tfrac{8712715845744014042459952643849}{451680665600}\,u_1{}^4u^{30}+$$
$$\tfrac{1911111042629407209819476 43}{1764377600}\,u^{27})x^{25}+(\tfrac{4557660698102619695549876934848219 3}{36134453248000}\,u_1{}^5u^{33}+$$
$$\tfrac{2363314058945177454537438705113994194553017}{896962225941473730560 00}\,u_1u^{30}+\tfrac{2950125352957109466079811294656859480752154588969}{1469582910982510560149504000}\,u_1{}^9u^{36}+$$
$$\tfrac{5897001168908402131450635852159076738552084700789 9}{1881066126057613516991365120 00}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[14]_{E_2^*}(x) = (14\,x+\tfrac{455}{4}\,u_1u^3x^3+\tfrac{22295}{8}\,u_1{}^2u^6x^5+\tfrac{5818995}{64}\,u_1{}^3u^9x^7+(\tfrac{16797599}{16}\,u^9+\tfrac{1717601613}{512}\,u_1{}^4u^{12})x^9+$$
$$(\tfrac{134468979463}{1312}\,u_1u^{12}+\tfrac{2797992611323}{20992}\,u_1{}^5u^{15})x^{11}+(\tfrac{38336227953205}{5248}\,u_1{}^2u^{15}+\tfrac{1868513087811825}{335872}\,u_1{}^6u^{18})x^{13}+$$
$$(\tfrac{3884654823405692 7}{83968}\,u_1{}^3u^{18}+\tfrac{646119735035116069}{2686976}\,u_1{}^7u^{21})x^{15}+(\tfrac{7167033077865531716 3}{6717440}\,u_1{}^8u^{24}+$$
$$\tfrac{1158741766786804027 1}{419840}\,u_1{}^4u^{21}+\tfrac{2905044465383 97}{410}\,u^{18})x^{17}+(\tfrac{1064427249720099971765787}{2203320320}\,u_1{}^9u^{27}+$$
$$\tfrac{1094823666171304354828 27}{68853760}\,u_1{}^5u^{24}+\tfrac{1157739495182064206867}{8606720}\,u_1u^{21})x^{19}+(\tfrac{4898484294187952468774 7649}{2203320320}\,u_1{}^{10}u^{30}+$$

$$\tfrac{1974125486393082090953014 13}{2203320320}\,u_1{}^6u^{27}+\tfrac{1090255369176054102603127}{68853760}\,u_1{}^2u^{24})x^{21}+$$
$$(\tfrac{3654974867293320411607394 4187}{35253125120}\,u_1{}^{11}u^{33}+\tfrac{5479339785584337663525123407}{1101660160}\,u_1{}^7u^{30}+$$
$$\tfrac{1026747851698749411724533651}{68853760}\,u_1{}^3u^{27})x^{23}+(\tfrac{2757411231242486632604934509497 7}{5640500019200}\,u_1{}^{12}u^{36}+$$
$$\tfrac{1203913404114636688799720144 1777}{44066406400}\,u_1{}^8u^{33}+\tfrac{3394162020178367245096329419 47}{2754150400}\,u_1{}^4u^{30}+$$
$$\tfrac{4644502230672605089023 69}{672400}\,u^{27})x^{25}+(\tfrac{1689089963534084295756448881793943}{180672266240}\,u_1{}^5u^{33}+$$
$$\tfrac{6995584372970961677260129014576759619381 09}{3587848903765894922240}\,u_1u^{30}+\tfrac{6839211586639048246346545305763781256004825127}{4592446596820345500467 20}\,u_1{}^9u^{36}+$$
$$\tfrac{5470795224556033387174864391895027859571753084 5}{2351332657572016896239 64}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[15]_{E_2^*}(x) = (15\,x+140\,u_1u^3x^3+\tfrac{7875}{2}\,u_1{}^2u^6x^5+\tfrac{2359875}{16}\,u_1{}^3u^9x^7+(\tfrac{80090332}{41}\,u^9+\tfrac{32791319771}{5248}\,u_1{}^4u^{12})x^9+$$
$$(\tfrac{71841027825}{328}\,u_1u^{12}+\tfrac{11967448898475}{41984}\,u_1{}^5u^{15})x^{11}+(\tfrac{23519687309475}{1312}\,u_1{}^2u^{15}+\tfrac{4588113512912475}{335872}\,u_1{}^6u^{18})x^{13}+$$
$$(\tfrac{2736655585476767 5}{20992}\,u_1{}^3u^{18}+\tfrac{1821647813687319275}{2686976}\,u_1{}^7u^{21})x^{15}+(\tfrac{3043955506034613732187 5}{881328128}\,u_1{}^8u^{24}+$$
$$\tfrac{3843019728369971875}{430336}\,u_1{}^4u^{21}+\tfrac{30789414155390625}{13448}\,u^{18})x^{17}+(\tfrac{1266032393079568611763555}{7050625024}\,u_1{}^9u^{27}+$$
$$\tfrac{3254053834374771381312 45}{55083008}\,u_1{}^5u^{24}+\tfrac{2148280057313032543 95}{430336}\,u_1u^{21})x^{19}+(\tfrac{5351733058420737791475351315}{56405000192}\,u_1{}^{10}u^{30}+$$
$$\tfrac{8421514879620365479139 7605}{220332032}\,u_1{}^6u^{27}+\tfrac{2323285171773900308572 85}{3442688}\,u_1{}^2u^{24})x^{21}+$$
$$(\tfrac{2292456462575402027097516211875}{451240001536}\,u_1{}^{11}u^{33}+\tfrac{8588478385955407369978709437 5}{3525312512}\,u_1{}^7u^{30}+$$
$$\tfrac{1005005411387215200691706 25}{13770752}\,u_1{}^3u^{27})x^{23}+(\tfrac{4070859641125402351493101384051687 5}{148006720503808}\,u_1{}^{12}u^{36}+$$
$$\tfrac{4441790106502431418074612430106 25}{289075625984}\,u_1{}^8u^{33}+\tfrac{3128288051031422108163470180625}{4516806656}\,u_1{}^4u^{30}+$$
$$\tfrac{6838858076147002544723437 5}{17643776}\,u^{27})x^{25}+(\tfrac{1063421566259708495409517873771781}{1762656256}\,u_1{}^5u^{33}+$$
$$\tfrac{5498239969843069643876720919125008098349}{4375425492397432832}\,u_1u^{30}+\tfrac{6894151979166575638555426643942448832443841949}{7168697126743953951948 8}\,u_1{}^9u^{36}+$$
$$\tfrac{1379181448797337045622305086138589156011808471}{9175932322232261058494464}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[16]_{E_2^*}(x) = (16\,x+170\,u_1u^3x^3+5440\,u_1{}^2u^6x^5+231880\,u_1{}^3u^9x^7+(\tfrac{286331153}{82}\,u^9+$$
$$\tfrac{7333145109}{656}\,u_1{}^4u^{12})x^9+(\tfrac{18271506704}{41}\,u_1u^{12}+\tfrac{23793086474}{41}\,u_1{}^5u^{15})x^{11}+(\tfrac{1701961321620}{41}\,u_1{}^2u^{15}+$$
$$\tfrac{259058114945}{82}\,u_1{}^6u^{18})x^{13}+(\tfrac{563421187376841}{164}\,u_1{}^3u^{18}+\tfrac{2344987032740013}{1312}\,u_1{}^7u^{21})x^{15}+(\tfrac{8709097411039029 06}{8405}\,u_1{}^8u^{24}+$$
$$\tfrac{2250978846455180432}{8405}\,u_1{}^4u^{21}+\tfrac{57646075216920576}{8405}\,u^{18})x^{17}+(\tfrac{6595208880231861520509}{1075840}\,u_1{}^9u^{27}+$$
$$\tfrac{1355640259150523318953}{67240}\,u_1{}^5u^{24}+\tfrac{2861326994833685290 1}{16810}\,u_1u^{21})x^{19}+(\tfrac{3172540467291837029769009}{8606720}\,u_1{}^{10}u^{30}+$$
$$\tfrac{7985055211712212229138 13}{537920}\,u_1{}^6u^{27}+\tfrac{3521874155589648379924 1}{134480}\,u_1{}^2u^{24})x^{21}+(\tfrac{3020458772361099508047333}{134480}\,u_1{}^{11}u^{33}+$$
$$\tfrac{9049822031183098704224 01}{8405}\,u_1{}^7u^{30}+\tfrac{2709161461493800740207 88}{8405}\,u_1{}^3u^{27})x^{23}+(\tfrac{3051806826809984726489218073 17}{220547200}\,u_1{}^{12}u^{36}+$$
$$\tfrac{1065237818917400611308228305 61}{13784200}\,u_1{}^8u^{33}+\tfrac{1199627573588967001329093010 9}{3446050}\,u_1{}^4u^{30}+$$
$$\tfrac{3352754272043755662370406 4}{1723025}\,u^{27})x^{25}+(\tfrac{6088838310807613753114444267679 3}{176437760}\,u_1{}^5u^{33}+$$
$$\tfrac{5031668974664118067816123950147326147593 1}{700751739016776352 0}\,u_1u^{30}+\tfrac{2468522035682884147488548335812525209421568281}{4484811129707368652 80}\,u_1{}^9u^{36}+$$
$$\tfrac{3087345773021489167745202507852864938453423 63}{3587848903765894922240}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[17]_{E_2^*}(x) = (17\,x+204\,u_1u^3x^3+\tfrac{14739}{2}\,u_1{}^2u^6x^5+\tfrac{5674515}{16}\,u_1{}^3u^9x^7+(\tfrac{247058076}{41}\,u^9+\tfrac{101307434603}{5248}\,u_1{}^4u^{12})x^9+$$
$$(\tfrac{1424289808293}{1640}\,u_1u^{12}+\tfrac{237518777587879}{209920}\,u_1{}^5u^{15})x^{11}+(\tfrac{599225157572223}{6560}\,u_1{}^2u^{15}+\tfrac{116997152991757783}{1679360}\,u_1{}^6u^{18})x^{13}+$$
$$(\tfrac{895929553114541367}{104960}\,u_1{}^3u^{18}+\tfrac{59683041342644513191}{13434880}\,u_1{}^7u^{21})x^{15}+(\tfrac{1281358293470601295357359}{4406640640}\,u_1{}^8u^{24}+$$
$$\tfrac{1616595574535334242727}{2151680}\,u_1{}^4u^{21}+\tfrac{1292562909012107637}{67240}\,u^{18})x^{17}+(\tfrac{3423679412314325006736001851}{176265625600}\,u_1{}^9u^{27}+$$
$$\tfrac{8794100873606594613223854 9}{1377075200}\,u_1{}^5u^{24}+\tfrac{5796139320520580637441 9}{10758400}\,u_1u^{21})x^{19}+(\tfrac{1859468627001468045441041746219}{1410125004800}\,u_1{}^{10}u^{30}+$$
$$\tfrac{2924283752372453421480703 73}{5508300800}\,u_1{}^6u^{27}+\tfrac{8055950033569319757729854 1}{86067200}\,u_1{}^2u^{24})x^{21}+$$
$$(\tfrac{1023391381392453737302975067459643}{11281000038400}\,u_1{}^{11}u^{33}+\tfrac{3831815525610576204432187292767}{88132812800}\,u_1{}^7u^{30}+$$
$$\tfrac{4478300045493779109172285268 1}{344268800}\,u_1{}^3u^{27})x^{23}+(\tfrac{2334925944914587754785910379618334 8003}{3700168012595200}\,u_1{}^{12}u^{36}+$$
$$\tfrac{2546261738106040027814956472920476 57}{7226890649600}\,u_1{}^8u^{33}+\tfrac{1791266567405240036741367161871513}{112920166400}\,u_1{}^4u^{30}+$$
$$\tfrac{3907195643045111795553178979 1}{441094400}\,u^{27})x^{25}+(\tfrac{1604010884177898145269274274094485319 3}{9033613312000}\,u_1{}^5u^{33}+$$

$$\frac{827719813752428645511701887145994629851385617}{22424055648536843264000}\,u_1u^{30}+\frac{1040961373484453036359569962712308738945788248552769}{367395727745627640037376000}\,u_1{}^9u^{36}+\frac{208357256755500154042051858131333904654049516574104499}{4702665315144033792478412800 0}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[18]_{E_2^*}(x)=(18\,x+\frac{969}{4}\,u_1u^3x^3+\frac{78489}{8}\,u_1{}^2u^6x^5+\frac{33881085}{64}\,u_1{}^3u^9x^7+(\frac{6611976345}{656}\,u^9+\frac{678211867835}{20992}\,u_1{}^4u^{12})x^9+(\frac{10686606768333}{6560}\,u_1u^{12}+\frac{222857892090153}{104960}\,u_1{}^5u^{15})x^{11}+(\frac{5041516253868423}{26240}\,u_1{}^2u^{15}+\frac{246168036510400827}{1679360}\,u_1{}^6u^{18})x^{13}+(\frac{8451971908088153877}{419840}\,u_1{}^3u^{18}+\frac{1408003878460031181 99}{13434880}\,u_1{}^7u^{21})x^{15}+(\frac{211836202668315125332173}{275415040}\,u_1{}^8u^{24}+\frac{3419997327225537999351 3}{17213440}\,u_1{}^4u^{21}+\frac{170774340589088847}{3362}\,u^{18})x^{17}+(\frac{6346283268537450616282 8338089}{11016601600}\,u_1{}^9u^{27}+\frac{6518849318463273575997 0969}{344268800}\,u_1{}^5u^{24}+\frac{6870137872569988111304 49}{43033600}\,u_1u^{21})x^{19}+(\frac{4830833304409544729108 8612527}{11016601600}\,u_1{}^{10}u^{30}+\frac{1944428870081098266 49829714679}{11016601600}\,u_1{}^6u^{27}+\frac{1070744489588048827447100061}{344268800}\,u_1{}^2u^{24})x^{21}+(\frac{5962135056004694499702068894 4873}{176265625600}\,u_1{}^{11}u^{33}+\frac{892748019409287261211399646 8773}{5508300800}\,u_1{}^7u^{30}+\frac{1668595800704461536275463920 49}{344268800}\,u_1{}^3u^{27})x^{23}+(\frac{1220169160032860804313772189002691107}{46252100157440}\,u_1{}^{12}u^{36}+\frac{5321304892698113959426594830758 4747}{361344532480}\,u_1{}^8u^{33}+\frac{1496748202952366932041043093813497}{22584033280}\,u_1{}^4u^{30}+\frac{2038753709017577238646707579}{5513680}\,u^{27})x^{25}+(\frac{3757085051862532847866008849990106280 1}{4516806656000}\,u_1{}^5u^{33}+\frac{1549877455704861362294824213066538369559391 3627}{89696222594147373056000}\,u_1u^{30}+\frac{1524508582676665935204894934490286467949817786537 13}{1148111649205086375116800 0}\,u_1{}^9u^{36}+\frac{6104111829562443657391755432073498440811117365660007 1}{2939165821965021120299008000}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[19]_{E_2^*}(x)=(19\,x+285\,u_1u^3x^3+\frac{102885}{8}\,u_1{}^2u^6x^5+\frac{49487685}{64}\,u_1{}^3u^9x^7+(\frac{672266037}{41}\,u^9+\frac{1103845530629}{20992}\,u_1{}^4u^{12})x^9+(\frac{3874941437439}{1312}\,u_1u^{12}+\frac{646687428310277}{167936}\,u_1{}^5u^{15})x^{11}+(\frac{2037128780593725}{5248}\,u_1{}^2u^{15}+\frac{397989698013560285}{1343488}\,u_1{}^6u^{18})x^{13}+(\frac{3805701910599390141}{83968}\,u_1{}^3u^{18}+\frac{2536576601010572 3533}{10747904}\,u_1{}^7u^{21})x^{15}+(\frac{3402031895065583480 3189841}{17626562560}\,u_1{}^8u^{24}+\frac{1072498160422869284 5431}{2151680}\,u_1{}^4u^{21}+\frac{3425241785913821 5551}{268960}\,u^{18})x^{17}+(\frac{2271390476155599111763457 5409}{141012500480}\,u_1{}^9u^{27}+\frac{5831669481346933463807 99391}{1101660160}\,u_1{}^5u^{24}+\frac{3839163226704363873345 21}{8606720}\,u_1u^{21})x^{19}+(\frac{1541305006301368515641479653632 9}{1128100003840}\,u_1{}^{10}u^{30}+\frac{2422888989153128059223261 89383}{4406640640}\,u_1{}^6u^{27}+\frac{6668064328503894114813893 91}{68853760}\,u_1{}^2u^{24})x^{21}+(\frac{1059845569362870339161348852573 1801}{9024800030720}\,u_1{}^{11}u^{33}+\frac{3966693881741071585840827536 12709}{70506250240}\,u_1{}^7u^{30}+\frac{4631807273455562169631667195 07}{275415040}\,u_1{}^3u^{27})x^{23}+(\frac{1510584772542126989658128859731812405869}{14800672050380800}\,u_1{}^{12}u^{36}+\frac{1646666038271631437061212392759185221 1}{28907562598400}\,u_1{}^8u^{33}+\frac{1157492788229785042062048522462661599}{451680665600}\,u_1{}^4u^{30}+\frac{2520821758029505390405987598493}{1764377600}\,u^{27})x^{25}+(\frac{5180364230936238944471409703497594 4351}{1445378129920}\,u_1{}^5u^{33}+\frac{2669599737778765831905922987950920160258223303}{358784890376589492224 0}\,u_1u^{30}+\frac{6728747650616956727548995625138547498625760 28848043}{1175666328786008448196032}\,u_1{}^9u^{36}+\frac{6736616232757836538697521099219373489781697235 1305957}{752426450423045067965460480}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[20]_{E_2^*}(x)=(20\,x+\frac{665}{2}\,u_1u^3x^3+16625\,u_1{}^2u^6x^5+\frac{8861125}{8}\,u_1{}^3u^9x^7+(\frac{8533333333}{328}\,u^9+\frac{54755498441}{656}\,u_1{}^4u^{12})x^9+(\frac{851733333325}{164}\,u_1u^{12}+\frac{8886728440975}{1312}\,u_1{}^5u^{15})x^{11}+(\frac{496214399997225}{656}\,u_1{}^2u^{15}+\frac{6060488024798725}{10496}\,u_1{}^6u^{18})x^{13}+(\frac{1027276324262525925}{10496}\,u_1{}^3u^{18}+\frac{1070070035199376225}{20992}\,u_1{}^7u^{21})x^{15}+(\frac{3975860654157451784375}{860672}\,u_1{}^8u^{24}+\frac{1283234751834041365625}{107584}\,u_1{}^4u^{21}+\frac{511999999980000000}{1681}\,u^{18})x^{17}+(\frac{5883058647293649276346605}{13770752}\,u_1{}^9u^{27}+\frac{1208139574967221467603935}{860672}\,u_1{}^5u^{24}+\frac{2543980088826396444444 5}{215168}\,u_1u^{21})x^{19}+(\frac{1105932510502065869117874085}{27541504}\,u_1{}^{10}u^{30}+\frac{2224901935894810361567050085}{13770752}\,u_1{}^6u^{27}+\frac{4896643845602815900444 5185}{1721344}\,u_1{}^2u^{24})x^{21}+(\frac{1053370900727572487763360 83125}{27541504}\,u_1{}^{11}u^{33}+\frac{1576733425435738741510810 1875}{860672}\,u_1{}^7u^{30}+\frac{235584621337231516150248125}{430336}\,u_1{}^3u^{27})x^{23}+(\frac{665476191498642689252730720 2708125}{18067226624}\,u_1{}^{12}u^{36}+\frac{1160503966125341440901669567476875}{564600832}\,u_1{}^8u^{33}+\frac{1304802089694293106917617024756 25}{141150208}\,u_1{}^4u^{30}+\frac{3549866666485333333333500000}{68921}\,u^{27})x^{25}+(\frac{3235627827038496255178605971909930 71}{2258403328}\,u_1{}^5u^{33}+\frac{2666450361701142052296690015797422038248486 59}{896962225941473730 56}\,u_1u^{30}+\frac{1313730850297899795751211376349738682792999403 77}{5740558246025431875584}\,u_1{}^9u^{36}+\frac{4110815226918558625497399335138132224882786681 45}{1148111649205086375116 8}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[21]_{E_2^*}(x)=$$

$$(21\,x+385\,u_1u^3x^3+\frac{169785}{8}\,u_1{}^2u^6x^5+\frac{99776985}{64}\,u_1{}^3u^9x^7+(\frac{1654750097}{41}\,u^9+\frac{2719179496649}{20992}\,u_1{}^4u^{12})x^9+(\frac{11656059683499}{1312}\,u_1u^{12}+\frac{1946350168234857}{167936}\,u_1{}^5u^{15})x^{11}+(\frac{7487681308590945}{5248}\,u_1{}^2u^{15}+\frac{1463510343787350705}{1343488}\,u_1{}^6u^{18})x^{13}+(\frac{1709172477912174760 1}{83968}\,u_1{}^3u^{18}+\frac{1139645209699072081313}{10747904}\,u_1{}^7u^{21})x^{15}+(\frac{1867488667940920556055 70341}{17626562560}\,u_1{}^8u^{24}+\frac{1177040517882125765777 37}{4303360}\,u_1{}^4u^{21}+\frac{1877621405892963240 51}{268960}\,u^{18})x^{17}+(\frac{1523384102113511628010009174629}{141012500480}\,u_1{}^9u^{27}+\frac{3909912017806166819675784171}{1101660160}\,u_1{}^5u^{24}+\frac{2571840627057026431114701}{8606720}\,u_1u^{21})x^{19}+(\frac{1263002791105209413533657575095469}{1128100003840}\,u_1{}^{10}u^{30}+\frac{1984787827049574676051680813363}{4406640640}\,u_1{}^6u^{27}+\frac{5458416499182760336787430251}{68853760}\,u_1{}^2u^{24})x^{21}+(\frac{1061100373127527004426022816131024 61}{9024800030720}\,u_1{}^{11}u^{33}+\frac{3970214371748395886115313810099449}{70506250240}\,u_1{}^7u^{30}+\frac{4633022855307645193424385744927}{275415040}\,u_1{}^3u^{27})x^{23}+(\frac{1847809424536481740673697760992173697 0129}{14800672050380800}\,u_1{}^{12}u^{36}+\frac{2013697633864299408912196433911659 38151}{2890756259840 0}\,u_1{}^8u^{33}+\frac{1414673986095677237353429975974064059}{451680665600}\,u_1{}^4u^{30}+\frac{3077403782600979676086704233071 3}{1764377600}\,u^{27})x^{25}+(\frac{7736083440727118779703643718749874837 39}{1445378129920}\,u_1{}^5u^{33}+\frac{7965397086681820298495016246460572586749158903}{7175697807531789844 48}\,u_1u^{30}+\frac{5026845543141465597487656289623455277572531566290153 9}{5878331643930042240598016 0}\,u_1{}^9u^{36}+\frac{1006820636533388483533639392430971234492905639741209481}{7524264504230454067965460480}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[22]_{E_2^*}(x)=(22\,x+\frac{1771}{4}\,u_1u^3x^3+\frac{214291}{8}\,u_1{}^2u^6x^5+\frac{138217695}{64}\,u_1{}^3u^9x^7+(\frac{40242307259}{656}\,u^9+\frac{4134318676873}{20992}\,u_1{}^4u^{12})x^9+(\frac{97235474915887}{6560}\,u_1u^{12}+\frac{2030019130498667}{104960}\,u_1{}^5u^{15})x^{11}+(\frac{685601146378518 37}{26240}\,u_1{}^2u^{15}+\frac{335072031985852113}{1679360}\,u_1{}^6u^{18})x^{13}+(\frac{1717723538889273561 03}{419840}\,u_1{}^3u^{18}+\frac{2863817970124218553061}{13434880}\,u_1{}^7u^{21})x^{15}+(\frac{1287677649050406170280339}{55083008}\,u_1{}^8u^{24}+\frac{1038696228494858558279963}{17213440}\,u_1{}^4u^{21}+\frac{2587888785869225 1537}{16810}\,u^{18})x^{17}+(\frac{2882252934055745656086943901 1}{11016601600}\,u_1{}^9u^{27}+\frac{2958640001735527362462386331}{344268800}\,u_1{}^5u^{24}+\frac{3112735635120433518493705 1}{43033600}\,u_1u^{21})x^{19}+(\frac{8196161631544259895126007272 87}{2754150400}\,u_1{}^{10}u^{30}+\frac{1318760974601779706429788630 6821}{11016601600}\,u_1{}^6u^{27}+\frac{7251418041163497581338331 5039}{344268800}\,u_1{}^2u^{24})x^{21}+(\frac{6046251268034047185609342698578267}{176265625600}\,u_1{}^{11}u^{33}+\frac{9047990442369820756313797042337 67}{5508300800}\,u_1{}^7u^{30}+\frac{1688929397879758606563603333 65171}{344268800}\,u_1{}^3u^{27})x^{23}+(\frac{9245074987249936703243672131316695814 37}{231260500787200}\,u_1{}^{12}u^{36}+\frac{4029564218566414165620168327296936 4037}{1806722662400}\,u_1{}^8u^{33}+\frac{1132086782668876686033872002097314807}{112920166400}\,u_1{}^4u^{30}+\frac{1538470458826122357208575676389}{27568400}\,u^{27})x^{25}+(\frac{8493719444712276326249124887456305802339}{4516806656000}\,u_1{}^5u^{33}+\frac{3496809839390536444566469197220331857438947473353}{8969622259414737305600 0}\,u_1u^{30}+\frac{3450203282074943344425793238187647960788181136736 5807}{1148111649205086375116800 0}\,u_1{}^9u^{36}+\frac{1382225618943106651094126970101179768854246418800909669}{2939165821965021120299008000}\,u_1{}^{13}u^{39})x^{27}+O(x^{29}))$$

$$[23]_{E_2^*}(x)=(23\,x+506\,u_1u^3x^3+\frac{133837}{4}\,u_1{}^2u^6x^5+\frac{94355085}{32}\,u_1{}^3u^9x^7+(\frac{3752401378}{41}\,u^9+\frac{3084882524933}{10496}\,u_1{}^4u^{12})x^9+(\frac{79288241117899}{3280}\,u_1u^{12}+\frac{13245185447841897}{419840}\,u_1{}^5u^{15})x^{11}+(\frac{6110892587579140 9}{13120}\,u_1{}^2u^{15}+\frac{1194811756576096928 9}{3358720}\,u_1{}^6u^{18})x^{13}+(\frac{1673510580306772830 81}{209920}\,u_1{}^3u^{18}+\frac{1116195379490395725 7113}{26869760}\,u_1{}^7u^{21})x^{15}+(\frac{4388595178185223654929620833}{8813281280}\,u_1{}^8u^{24}+\frac{1106121545898487582804663}{860672}\,u_1{}^4u^{21}+\frac{4407813736214431758 27}{134480}\,u^{18})x^{17}+(\frac{2147405481121353280868269800373}{352531251200}\,u_1{}^9u^{27}+\frac{5510156412370307301512475442 7}{2754150400}\,u_1{}^5u^{24}+\frac{3622145425605469115440 3037}{21516800}\,u_1u^{21})x^{19}+(\frac{2135876290439133564345136831528437}{2820250009600}\,u_1{}^{10}u^{30}+\frac{3355710359628626650212423477977 9}{1101660160}\,u_1{}^6u^{27}+\frac{9223625486573462815661157064 3}{172134400}\,u_1{}^2u^{24})x^{21}+(\frac{2152759126397193143779171477376166309}{22562000076800}\,u_1{}^{11}u^{33}+\frac{8052976549909357618204993116880321}{176265625600}\,u_1{}^7u^{30}+\frac{9392882652424666330420989268 1303}{688537600}\,u_1{}^3u^{27})x^{23}+(\frac{8994838334114367569772498472014391243585 3}{7400336025190400}\,u_1{}^{12}u^{36}+\frac{9800266808622327570459348161 4026192207}{14453781299200}\,u_1{}^8u^{33}+\frac{6881956386203441352230788071146434663}{225840332800}\,u_1{}^4u^{30}+\frac{1495781025339127504038911411092 41}{882188800}\,u^{27})x^{25}+(\frac{1128761961021661667033223475832413772265 99}{18067226624000}\,u_1{}^5u^{33}+\frac{5806792319123122317590390298701958765816173892831}{4484811129707368652800 0}\,u_1u^{30}+$$

$$\frac{7337526512768562113858037080406266554854924273678334767}{7347914554912552800747520000}\,u_1{}^9u^{36} + \frac{14699262312287058336201630606070086211252526130745050695 7}{9405330630288067584956825600 0}\,u_1{}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[24]_{E_2^*}(x) =$$

$$(24\,x + 575\,u_1u^3x^3 + 41400\,u_1{}^2u^6x^5 + 3972675\,u_1{}^3u^9x^7 + (\frac{22015062835}{164}\,u^9 + \frac{565722022755}{1312}\,u_1{}^4u^{12})x^9 + (\frac{1583020611990}{41}\,u_1u^{12} + \frac{8265315897135}{164}\,u_1{}^5u^{15})x^{11} + (\frac{664283193959175}{82}\,u_1{}^2u^{15} + \frac{4059363766226925}{656}\,u_1{}^6u^{18})x^{13} + (\frac{1980942035095419955}{1312}\,u_1{}^3u^{18} + \frac{8258779321005513315}{10496}\,u_1{}^7u^{21})x^{15} + (\frac{2762348141736919700307}{26896}\,u_1{}^8u^{24} + \frac{89108319014533989006 3}{3362}\,u_1{}^4u^{21} + \frac{1135928886640784179 2}{1681}\,u^{18})x^{17} + (\frac{2354909304049686227832177 9}{1721344}\,u_1{}^9u^{27} + \frac{4833592302511234011552543}{107584}\,u_1{}^5u^{24} + \frac{1016504896362044560559 31}{26896}\,u_1u^{21})x^{19} + (\frac{2550489277514012471597100585 9}{13770752}\,u_1{}^{10}u^{30} + \frac{6410773088790628978061398813}{860672}\,u_1{}^6u^{27} + \frac{2818716153044978837725015 91}{215168}\,u_1{}^2u^{24})x^{21} + (\frac{2186855928375725994002228441 07}{860672}\,u_1{}^{11}u^{33} + \frac{6543825478160947343639814897 9}{53792}\,u_1{}^7u^{30} + \frac{4883926266389422626878911563}{13448}\,u_1{}^3u^{27})x^{23} + (\frac{4974797501119517834707469310006 7803}{1411502080}\,u_1{}^{12}u^{36} + \frac{1734331417600469097984209703405 6399}{88218880}\,u_1{}^8u^{33} + \frac{1948270230309890517650442068635131}{22054720}\,u_1{}^4u^{30} + \frac{1693219247934346859999260999 68}{344605}\,u^{27})x^{25} + (\frac{5567426293127623602503597271458864655}{282300416}\,u_1{}^5u^{33} + \frac{4581171950766373769804927946123918347928014229}{1121202782426842163 2}\,u_1u^{30} + \frac{2262312034962887548154089656428823992033559633768 7}{7175697807531789844 48}\,u_1{}^9u^{36} + \frac{2832793260228536044292098290490600326710052672104 9}{5740558246025431875584}\,u_1{}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[25]_{E_2^*}(x) = (25\,x + 650\,u_1u^3x^3 + \frac{203125}{4}\,u_1{}^2u^6x^5 + \frac{169203125}{32}\,u_1{}^3u^9x^7 + (\frac{7947285970}{41}\,u^9 + \frac{6536474194445}{10496}\,u_1{}^4u^{12})x^9 + (\frac{39688746134375}{656}\,u_1u^{12} + \frac{6632162934028125}{83968}\,u_1{}^5u^{15})x^{11} + (\frac{36145281791653125}{2624}\,u_1{}^2u^{15} + \frac{7069018230729528125}{671744}\,u_1{}^6u^{18})x^{13} + (\frac{1169640101273064281 25}{41984}\,u_1{}^3u^{18} + \frac{7803015803212122878125}{5373952}\,u_1{}^7u^{21})x^{15} + (\frac{3625021166461511640332031 25}{1762656256}\,u_1{}^8u^{24} + \frac{4567394723186068261718 75}{860672}\,u_1{}^4u^{21} + \frac{3637978807067871093 75}{26896}\,u^{18})x^{17} + (\frac{4191716524328159498580764131 25}{14101250048}\,u_1{}^9u^{27} + \frac{1075372447821124713372793687 5}{110166016}\,u_1{}^5u^{24} + \frac{7065601595130919350518125}{860672}\,u_1u^{21})x^{19} + (\frac{4926254153385298737077935396331 25}{112810000384}\,u_1{}^{10}u^{30} + \frac{7738328483165436849827240981875}{440664064}\,u_1{}^6u^{27} + \frac{2126097646794326103740269187 5}{6885376}\,u_1{}^2u^{24})x^{21} + (\frac{5866769987554919046249323304707031 25}{902480003072}\,u_1{}^{11}u^{33} + \frac{2194248488809894546180549005664062 5}{7050625024}\,u_1{}^7u^{30} + \frac{2558398471909751556428380273437 5}{27541504}\,u_1{}^3u^{27})x^{23} + (\frac{2896409149492751147409914017644092382812 5}{296013441007616}\,u_1{}^{12}u^{36} + \frac{3155246098636567476146794958033443359375}{5781515251968}\,u_1{}^8u^{33} + \frac{2214942785516686555491541244083984375}{9033613312}\,u_1{}^4u^{30} + \frac{4810966440001114582022094726562 5}{35287552}\,u^{27})x^{25} + (\frac{8585391019141380855375463520234906008875}{144537812992}\,u_1{}^5u^{33} + \frac{4414138219520745139748252922348623280935792814 75}{3587848903765894922 24}\,u_1u^{30} + \frac{5582650393717857961359961583611438697059468202859 5795}{5878331643930042240598016}\,u_1{}^9u^{36} + \frac{1118549034186500106371018412089243657935092741551841938 5}{7524264504230454067965460 48}\,u_1{}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[26]_{E_2^*}(x) = (26\,x + \frac{2925}{4}\,u_1u^3x^3 + \frac{494325}{8}\,u_1{}^2u^6x^5 + \frac{445386825}{64}\,u_1{}^3u^9x^7 + (\frac{180983455965}{656}\,u^9 + \frac{18610361341455}{20992}\,u_1{}^4u^{12})x^9 + (\frac{122209078640805}{1312}\,u_1u^{12} + \frac{2553047409232905}{20992}\,u_1{}^5u^{15})x^{11} + (\frac{120387389664844575}{5248}\,u_1{}^2u^{15} + \frac{5886746248653914475}{335872}\,u_1{}^6u^{18})x^{13} + (\frac{4213763183962464192 45}{83968}\,u_1{}^3u^{18} + \frac{7028478191393819331015}{2686976}\,u_1{}^7u^{21})x^{15} + (\frac{2207354188568884205573186 1}{55083008}\,u_1{}^8u^{24} + \frac{3559613641016492350870137}{3442688}\,u_1{}^4u^{21} + \frac{8858025901404072045 9}{3362}\,u^{18})x^{17} + (\frac{2760807058746644315402153994 9}{440664064}\,u_1{}^9u^{27} + \frac{2832882783959978953568953029}{13770752}\,u_1{}^5u^{24} + \frac{2977493520598851377604510 9}{1721344}\,u_1u^{21})x^{19} + (\frac{2193429479001833813913939104169}{220332032}\,u_1{}^{10}u^{30} + \frac{1763971456495537228459817430233 1}{440664064}\,u_1{}^6u^{27} + \frac{9691305830897238136698674724 9}{13770752}\,u_1{}^2u^{24})x^{21} + (\frac{1130182609953345008619225365448246 9}{7050625024}\,u_1{}^{11}u^{33} + \frac{1690692000566565557088116001302409}{220332032}\,u_1{}^7u^{30} + \frac{3153554344179574095502998930503 7}{13770752}\,u_1{}^3u^{27})x^{23} + (\frac{1207041439829582277865134689667052743927 9}{46252100157440}\,u_1{}^{12}u^{36} + \frac{5259275271719836911996647362587835958 79}{361344532480}\,u_1{}^8u^{33} + \frac{1476573277775897973162279609745077546 9}{22584033280}\,u_1{}^4u^{30} + \frac{2003945175836135150414590690026 3}{5513680}\,u^{27})x^{25} + (\frac{3682760485582485746555137486804086345}{21495808}\,u_1{}^5u^{33} + \frac{6209119919530405536164313805113047613677052365 1}{17501701969589731328}\,u_1u^{30} + \frac{6137239133921768911477732111207580890954872772700 61}{22402178521074856099 84}\,u_1{}^9u^{36} + \frac{2459496211432381274093380179726655811776236749632099 9}{5734957701395161361555904}\,u_1{}^{13}u^{39})x^{27} + O(x^{29}))$$

$$[27]_{E_2^*}(x) = (27\,x + 819\,u_1u^3x^3 + \frac{597051}{8}\,u_1{}^2u^6x^5 + \frac{580134555}{64}\,u_1{}^3u^9x^7 + (387479547\,u^9 + \frac{637612816659}{512}\,u_1{}^4u^{12})x^9 + (\frac{925556894739477}{6560}\,u_1u^{12} + \frac{1547033865799550 31}{839680}\,u_1{}^5u^{15})x^{11} + (\frac{9832980777627350 07}{26240}\,u_1{}^2u^{15} + \frac{1923451375054968592 47}{6717440}\,u_1{}^6u^{18})x^{13} + (\frac{3711714659105177970063}{419840}\,u_1{}^3u^{18} + \frac{2476636191995038344351 99}{53739520}\,u_1{}^7u^{21})x^{15} + (\frac{3273438015122380787350968 39}{429916160}\,u_1{}^8u^{24} + \frac{4123746034125334048095 3}{20992}\,u_1{}^4u^{21} + \frac{3283070065652335623 21}{6560}\,u^{18})x^{17} + (\frac{9051427906154771455324197602037 9}{705062502400}\,u_1{}^9u^{27} + \frac{2321768794346960079243467184021}{5508300800}\,u_1{}^5u^{24} + \frac{1524905063102561718307872051}{43033600}\,u_1u^{21})x^{19} + (\frac{1240851464295708670337334408474432 51}{5640500019200}\,u_1{}^{10}u^{30} + \frac{1948896713137994434108446230122317}{22033203200}\,u_1{}^6u^{27} + \frac{5352818196118165943796960377589}{344268800}\,u_1{}^2u^{24})x^{21} + (\frac{1723772156561701536021475060038718703 07}{4512400015360 0}\,u_1{}^{11}u^{33} + \frac{6446266491110455475982828503573838183}{352531251200}\,u_1{}^7u^{30} + \frac{7513889693131655042156572666410369}{1377075200}\,u_1{}^3u^{27})x^{23} + (\frac{2421222426918539918545763885711177673494 19}{360992001228800}\,u_1{}^{12}u^{36} + \frac{2637254562168568739442201266878015072461}{705062502400}\,u_1{}^8u^{33} + \frac{1850834409290781986478781461064982904 9}{11016601600}\,u_1{}^4u^{30} + \frac{4018022479795242592064856666890643}{43033600}\,u^{27})x^{25} + (\frac{1715568194164188260140200435935566276678757 7}{36134453248000}\,u_1{}^5u^{33} + \frac{2774828916887135314413020676727375695093}{282300416000}\,u_1u^{30} + \frac{3511804425008213398487666281030587383564094501}{4625210015744000}\,u_1{}^9u^{36} + \frac{7037183521742919062751577299348750630792307707 1}{592026882015232000}\,u_1{}^{13}u^{39})x^{27} + O(x^{29}))$$

8.10. $F_{K(2)}(x,y)$ **at** $p = 3$ **over** $K(2)_*$**.**

```
> restart: with(powseries):
> MKfgl_ungraded:=proc(h,p,t)
> # the ungraded Morava K(h)-theory formal group law,
> # h = height, p=prime, t=total degree
> local B,b,f,logF,expF,e,m;
> m:=evalf(1+ceil(log(t)/log(p^h)));
> print(m);
> f:=x->convert(series(sum(x^(p^(h*i))/(p^i),i=0..m),
  x=0,t+1),polynom);
> # f is the logarithm
> print(f(x));
> latex(f(x));
> logF:=powpoly(f(x),x);
> expF:=reversion(logF);
> e:=x->simplify(tpsform(expF,x,t));
> # e is the inverse of the logarithm
> print(sort( simplify( mtaylor( subs(z=f(x)+f(y),e(z)),
  [x,y], t ) ) mod p, [x,y]));
> latex(sort( simplify( mtaylor( subs(z=f(x)+f(y),e(z)),
  [x,y], t ) ) mod p, [x,y]));
> end proc:
> MKfgl_ungraded(2,3,82);

> MKfgl:=proc(h,p,t)
> # the Morava K(h)-theory formal group law,
> # h = height, p=prime, t=total degree
> local B,b,f,logF,expF,e,m,v;
> m:=evalf(1+ceil(log(t)/log(p^h)));
> print(m);
> f:=x->convert(series(sum((v[h]^((p^(h*i)-1)/(p^h-1)))
  *x^(p^(h*i))/(p^i), i=0..m),x=0,t+1) , polynom);
> # f is the logarithm
> print(f(x));
> latex(f(x));
> logF:=powpoly(f(x),x);
> expF:=reversion(logF);
> e:=x->simplify(tpsform(expF,x,t));
> # e is the inverse of the logarithm
> print(e(x));
> latex(e(x));
> print(sort( simplify( mtaylor( subs(z=f(x)+f(y),e(z)),
  [x,y], t)) mod p, [x,y]));
> latex(sort( simplify( mtaylor( subs(z=f(x)+f(y),e(z)),
  [x,y], t)) mod p, [x,y]));
```



```
> end proc:
> MKfgl(2,3,82);
```

The results of these computations are that logarithms $\log_{\Delta^2}(x)$ and $\log_{K(2)}(x)$ at $p = 3$ equal

$$x + 1/3\, x^9 + 1/9\, x^{81}$$

$$x + 1/3\, v_2 x^9 + 1/9\, {v_2}^{10} x^{81}$$

The formal group law $F_{K(2)}(x,y)$ at $p = 3$ equals

$$x + y$$

$$+2\, v_2 x^6 y^3 + 2\, v_2 x^3 y^6$$

$$+{v_2}^4 x^{24} y^9 + 2\, {v_2}^4 x^{21} y^{12} + {v_2}^4 x^{18} y^{15} + {v_2}^4 x^{15} y^{18} + 2\, {v_2}^4 x^{12} y^{21} + {v_2}^4 x^9 y^{24}$$

$$+2\, {v_2}^7 x^{39} y^{18} + 2\, {v_2}^7 x^{36} y^{21} + {v_2}^7 x^{30} y^{27} + {v_2}^7 x^{27} y^{30} + 2\, {v_2}^7 x^{21} y^{36} + 2\, {v_2}^7 x^{18} y^{39}$$

$$2\, {v_2}^{10} x^{72} y^9 + 2\, {v_2}^{10} x^{63} y^{18} + 2\, {v_2}^{10} x^{45} y^{36} + 2\, {v_2}^{10} x^{36} y^{45} + 2\, {v_2}^{10} x^{18} y^{63} + 2\, {v_2}^{10} x^9 y^{72}$$

Some values of the n-series for $F_{K(2)}(x,y)$ at $p = 3$ are:

$$[2]_{K(2)}(x) = (2\, x + v_2 x^9 + 2\, {v_2}^4 x^{33} + {v_2}^7 x^{57} + O(x^{89}))$$

$$[3]_{K(2)}(x) = (v_2 x^9 + O(x^{89}))$$

$$[4]_{K(2)}(x) = (x + v_2 x^9 + 2\, {v_2}^4 x^{33} + 2\, {v_2}^7 x^{57} + O(x^{89}))$$

$$[5]_{K(2)}(x) = (2\, x + 2\, v_2 x^9 + {v_2}^4 x^{33} + {v_2}^7 x^{57} + {v_2}^{10} x^{81} + O(x^{89}))$$

$$[6]_{K(2)}(x) = (2\, v_2 x^9 + {v_2}^{10} x^{81} + O(x^{89}))$$

$$[7]_{K(2)}(x) = (x + 2\, v_2 x^9 + {v_2}^4 x^{33} + 2\, {v_2}^7 x^{57} + {v_2}^{10} x^{81} + O(x^{89}))$$

$$[8]_{K(2)}(x) = (2\, x + {v_2}^{10} x^{81} + O(x^{89}))$$

$$[9]_{K(2)}(x) = ({v_2}^{10} x^{81} + O(x^{89}))$$

$$[10]_{K(2)}(x) = (x + {v_2}^{10} x^{81} + O(x^{89}))$$

$$[11]_{K(2)}(x) = (2\, x + v_2 x^9 + 2\, {v_2}^4 x^{33} + {v_2}^7 x^{57} + {v_2}^{10} x^{81} + O(x^{89}))$$

$$[12]_{K(2)}(x) = (v_2 x^9 + {v_2}^{10} x^{81} + O(x^{89}))$$

$$[13]_{K(2)}(x) = (x + v_2 x^9 + 2\, {v_2}^4 x^{33} + 2\, {v_2}^7 x^{57} + {v_2}^{10} x^{81} + O(x^{89}))$$

$$[14]_{K(2)}(x) = (2\, x + 2\, v_2 x^9 + {v_2}^4 x^{33} + {v_2}^7 x^{57} + 2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[15]_{K(2)}(x) = (2\, v_2 x^9 + 2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[16]_{K(2)}(x) = (x + 2\, v_2 x^9 + {v_2}^4 x^{33} + 2\, {v_2}^7 x^{57} + 2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[17]_{K(2)}(x) = (2\, x + 2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[18]_{K(2)}(x) = (2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[19]_{K(2)}(x) = (x + 2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[20]_{K(2)}(x) = (2\, x + v_2 x^9 + 2\, {v_2}^4 x^{33} + {v_2}^7 x^{57} + 2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[21]_{K(2)}(x) = (v_2 x^9 + 2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[22]_{K(2)}(x) = (x + v_2 x^9 + 2\, {v_2}^4 x^{33} + 2\, {v_2}^7 x^{57} + 2\, {v_2}^{10} x^{81} + O(x^{89}))$$

$$[23]_{K(2)}(x) = (2\,x + 2\,v_2 x^9 + {v_2}^4 x^{33} + {v_2}^7 x^{57} + O(x^{89}))$$

$$[24]_{K(2)}(x) = (2\,v_2 x^9 + O(x^{89}))$$

$$[25]_{K(2)}(x) = (x + 2\,v_2 x^9 + {v_2}^4 x^{33} + 2\,{v_2}^7 x^{57} + O(x^{89}))$$

$$[26]_{K(2)}(x) = (2\,x + O(x^{89}))$$

$$[27]_{K(2)}(x) = (O(x^{89}))$$

9.1. $F_C(x,y)$ **for** $C : y^2 + a_1xy + a_3y = x^3 + a_2x^2 + a_4x + a_6$ **over** $\mathbb{Z}[a_1,a_2,a_3,a_4,a_6]$ **with coordinate** $z = -\frac{x}{y}$**.**

```
> restart: with(powseries):
> m:=25:
> Order:=m:
> z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3;
> simplify(mtaylor(subs(
  w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3,
  %),[z,w],m)): # O(4)
> simplify(mtaylor(subs(
  w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3,
  %),[z,w],m)): # O(5)
... repeat this until at least O(26)
> simplify(mtaylor(subs(
  w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3,
  %),[z,w],m)): # O(27)
> series(%,z);
> # hard code the result to avoid recalculating each time
> w:=z->series(1*z^3+a[1]*z^4+(a[2]+a[1]^2)*z^5
  +(a[1]^3+a[3]+2*a[1]*a[2])*z^6+... (terms omitted);
> x:=z->z/w(z);
> y:=z->-1/w(z);
> # calculate the invariant differential
> simplify(series((diff(
  simplify(series(x(z),z)), z)) /
  (2*y(z) + a[1]*x(z) + a[3]), z));
> # hard code the result as eta_a
> eta_a:=z->series(1+a[1]*z+(a[2]+a[1]^2)*z^2+
  (2*a[3]+a[1]^3+2*a[1]*a[2])*z^3+
  (a[2]^2+3*a[1]^2*a[2]+a[1]^4+6*a[3]*a[1]+2*a[4])*z^4+
  ... (terms omitted);
> latex(%);
> # compute the logarithm by integrating eta_a
> f:=x->add(coeff(eta_a(x),x,i-1)*x^i/i,i=1..(m-1));
> latex(%);
> log_C:=powpoly(f(x),x);
> exp_C:=reversion(log_C);
> simplify(tpsform(exp_C,x,15));
> # hard code the exponential
> e:=x->1*x+(-1/2*a[1])*x^2+(1/6*a[1]^2-1/3*a[2])*x^3
  +(-1/24*a[1]^3+1/3*a[1]*a[2]-1/2*a[3])*x^4+...;
> latex(%);
> F_C:=(x,y)->sort(simplify(mtaylor(
```

```
  e(f(x)+f(y)),[x,y],15)),[x,y]);
> F_C(x,y);
> # hard code the result
> F:=(x,y)->x+y-a[1]*x*y-a[2]*x^2*y-a[2]*x*y^2
  -2*a[3]*x^3*y+a[1]*a[2]*x^2*y^2
  -3*a[3]*x^2*y^2-2*a[3]*x*y^3+... (terms omitted);
> latex(%);
> for n from 2 to 14 do print(n);
  latex(simplify(series(e(n*f(x)),x,15))); od;
```

The results of these computations are that the invariant differential $\eta_{\vec{d}}$ equals

$$1+a_1z+(a_2+a_1^2)z^2+(2\,a_3+a_1^3+2\,a_1a_2)z^3+(a_2^2+3\,a_1^2a_2+a_1^4+6\,a_3a_1+2\,a_4)z^4+(6\,a_1a_4+3\,a_1a_2^2+4\,a_1^3a_2+12\,a_3a_1^2+6\,a_2a_3+a_1^5)z^5+(a_2^3+3\,a_6+6\,a_3^2+5\,a_1^4a_2+20\,a_3a_1^3+6\,a_1^2a_2^2+12\,a_4a_1^2+6\,a_2a_4+24\,a_3a_1a_2+a_1^6)z^6+(12\,a_1a_6+30\,a_3^2a_1+30\,a_1^4a_3+4\,a_1a_2^3+20\,a_1^3a_4+12\,a_4a_3+12\,a_3a_2^2+6\,a_1^5a_2+10\,a_1^3a_2^2+60\,a_1^2a_2a_3+24\,a_4a_1a_2+a_1^7)z^7+(a_2^4+6\,a_4^2+12\,a_4a_2^2+15\,a_1^4a_2^2+10\,a_2^3a_1^2+12\,a_2a_6+42\,a_3a_1^5+7\,a_1^6a_2+90\,a_3^2a_1^2+30\,a_1^4a_4+30\,a_3^2a_2+60\,a_3a_1a_4+30\,a_6a_1^2+120\,a_3a_1^3a_2+60\,a_2^2a_3a_1+60\,a_1^2a_2a_4+a_1^8)z^8+(20\,a_3^3+210\,a_3^2a_1^3+42\,a_1^5a_4+8\,a_1^7a_2+20\,a_1^3a_2^3+60\,a_6a_1^3+21\,a_1^5a_2^2+56\,a_1^6a_3+20\,a_2^3a_3+20\,a_6a_3+30\,a_4^2a_1+5\,a_1a_2^4+210\,a_3a_1^4a_2+120\,a_1^3a_4a_2+60\,a_4a_3a_2+180\,a_1^2a_3a_2^2+60\,a_6a_1a_2+180\,a_3a_1^2a_4+180\,a_3^2a_1a_2+60\,a_1a_4a_2^2+a_1^9)z^9+(15\,a_2^4a_1^2+90\,a_2^2a_3^2+420\,a_1^3a_3a_2^2+210\,a_1^4a_2a_4+336\,a_3a_1^5a_2+180\,a_1^2a_4a_2^2+180\,a_6a_1^2a_2+35\,a_1^4a_2^3+56\,a_1^6a_4+630\,a_3^2a_1^2a_2+420\,a_3a_1^3a_4+120\,a_3a_1a_6+120\,a_2^3a_3a_1+140\,a_3^3a_1+a_1^{10}+a_2^5+20\,a_2^3a_4+90\,a_1^2a_4^2+72\,a_3a_1^7+30\,a_2a_4^2+9\,a_1^8a_2+105\,a_1^4a_6+420\,a_3^2a_1^4+28\,a_1^6a_2^2+60\,a_3^2a_4+30\,a_6a_2^2+360\,a_3a_1a_2a_4+20\,a_6a_4)z^{10}+(6\,a_1a_2^5+35\,a_2^4a_1^3+56\,a_2^3a_1^5+36\,a_1^7a_2^2+756\,a_3^2a_1^5+72\,a_1^7a_4+30\,a_2^4a_3+140\,a_3^3a_2+210\,a_1^3a_4^2+420\,a_6a_3a_1^2+180\,a_1a_6a_2^2+840\,a_1^4a_3a_4+630\,a_3^2a_1a_2^2+120\,a_2^3a_4a_1+180\,a_2a_4^2a_1+336\,a_1^5a_4a_2+420\,a_1^3a_4a_2^2+180\,a_2^2a_4a_3+840\,a_1^4a_3a_2^2+420\,a_3^2a_1a_4+120\,a_6a_3a_2+420\,a_1^3a_2a_6+120\,a_4a_1a_6+504\,a_3a_1^6a_2+a_1^{11}+1680\,a_3^2a_1^3a_2+60\,a_4^2a_3+560\,a_3^3a_1^2+168\,a_1^5a_6+1260\,a_3a_1^2a_4a_2+420\,a_1^2a_2^3a_3+90\,a_3a_1^8+10\,a_1^9a_2)z^{11}+(840\,a_1^4a_4a_2^2+1120\,a_1^3a_3a_2^3+210\,a_1a_3a_2^4+504\,a_1^6a_2a_4+1120\,a_3^3a_1a_2+420\,a_3^2a_2a_4+720\,a_3a_1^7a_2+1680\,a_3^2a_4a_1^2+1512\,a_3a_1^5a_4+120\,a_2a_6a_4+420\,a_3a_1a_4^2+1512\,a_1^5a_3a_2^2+3780\,a_1^4a_3^2a_2+20\,a_4^3+70\,a_3^4+15\,a_6^2+a_1^{12}+a_2^6+45\,a_1^8a_2^2+30\,a_2^4a_4+70\,a_2^4a_1^4+210\,a_3^2a_2^3+1260\,a_3^2a_1^6+84\,a_1^6a_2^3+3360\,a_3a_1^3a_4a_2+1120\,a_3a_1^3a_6+840\,a_1^4a_6a_2+630\,a_1^2a_6a_2^2+1260\,a_3a_1a_4a_2^2+840\,a_6a_3a_1a_2+420\,a_6a_1^2a_4+420\,a_1^2a_2^3a_4+630\,a_1^2a_2a_4^2+2520\,a_3^2a_1^2a_2^2+21\,a_1^2a_2^5+90\,a_2^2a_4^2+1680\,a_3^3a_1^3+420\,a_1^4a_4^2+252\,a_1^6a_6+90\,a_1^8a_4+105\,a_6a_3^2+60\,a_2^3a_6+11\,a_1^{10}a_2+110\,a_3a_1^9)z^{12}+(1680\,a_1^2a_4^2a_3+1512\,a_1^5a_4a_2^2+2520\,a_1^4a_2^3a_3+3360\,a_3a_1^2a_2a_6+1120\,a_1^3a_2^3a_4+5040\,a_3^3a_1^2a_2+1680\,a_1^3a_2a_4^2+840\,a_6a_3^2a_1+a_1^{13}+120\,a_2^3a_1^7+42\,a_2^5a_3+756\,a_1^5a_4^2+560\,a_3^3a_2^2+132\,a_1^{10}a_3+110\,a_1^9a_4+7\,a_2^6a_1+126\,a_2^4a_1^5+1980\,a_3^2a_1^7+140\,a_1a_4^3+630\,a_3^4a_1+4200\,a_3^3a_1^4+105\,a_1a_6^2+280\,a_3^3a_4+1512\,a_1^5a_6a_2+2520\,a_1^4a_3a_6+55\,a_1^9a_2^2+3360\,a_3^2a_1a_4a_2+840\,a_1a_2a_4a_6+360\,a_1^7a_6+56\,a_1^3a_2^5+420\,a_2^2a_6a_3+210\,a_3a_6a_4+2520\,a_1^6a_3a_2^2+720\,a_1^7a_4a_2+5040\,a_3^2a_1^3a_4+990\,a_3a_1^8a_2+1120\,a_1^3a_6a_4+1680\,a_1^3a_6a_2^2+7560\,a_1^3a_2^2a_3^2+2520\,a_3a_1^6a_4+210\,a_1a_4a_2^4+7560\,a_3^2a_1^5a_2+840\,a_1^2a_3a_2^4+420\,a_1a_6a_2^3+630\,a_4^2a_1a_2^2+420\,a_3a_2^3a_4+1680\,a_3^2a_1a_2^3+420\,a_2a_4^2a_3+7560\,a_3a_1^4a_2a_4+5040\,a_3a_1^2a_4a_2^2+12\,a_1^{11}a_2)z^{13}+(2520\,a_1^2a_2^2a_4^2+3780\,a_3^2a_1^2a_6+10080\,a_1^3a_6a_3a_2+5040\,a_3^3a_2^2a_1+990\,a_1^8a_2a_4+5040\,a_1^5a_3a_2^3+2520\,a_3a_1^3a_2^4+a_2^7+a_1^{14}+13\,a_1^{12}a_2+42\,a_2^5a_4+495\,a_1^8a_6+2970\,a_1^8a_3^2+9240\,a_3^3a_1^5+560\,a_1^2a_4^3+105\,a_4^2a_6+420\,a_6^2a_1^2+105\,a_2a_6^2+66\,a_1^{10}a_2^2+165\,a_1^8a_2^3+210\,a_2^4a_1^6+156\,a_1^{11}a_3+126\,a_1^4a_2^5+132\,a_1^{10}a_4+28\,a_2^6a_1^2+1260\,a_1^6a_4^2+630\,a_3^4a_2+420\,a_2^4a_3^2+420\,a_3^2a_4^2+105\,a_2^4a_6+3150\,a_3^4a_1^2+420\,a_2^2a_6a_4+3360\,a_1^2a_2a_6a_4+3360\,a_3a_1a_2a_4^2+3360\,a_3a_1a_2^3a_4+15120\,a_3^2a_4a_1^2a_2+2520\,a_1^4a_4a_6+$$

$$2520\,a_1^4a_2^3a_4+2520\,a_1^6a_4a_2^2+7560\,a_3^2a_1^2a_2^3+2520\,a_1^6a_2a_6+210\,a_4^2a_2^3+140\,a_2a_4^3+840\,a_1^2a_4a_2^4+336\,a_1a_2^5a_3+3960\,a_1^7a_3a_2^2+1320\,a_3a_1^9a_2+15120\,a_3a_1^5a_4a_2+15120\,a_1^3a_2^2a_4a_3+3360\,a_6a_3a_1a_2^2+1680\,a_6a_3a_1a_4+840\,a_6a_3^2a_2+12600\,a_1^4a_3^2a_4+1680\,a_3^2a_4a_2^2+5040\,a_3a_1^3a_4^2+2520\,a_3^3a_1a_4+1680\,a_1^2a_6a_2^3+5040\,a_1^5a_3a_6+16800\,a_3^3a_1^3a_2+3780\,a_1^4a_6a_2^2+3780\,a_1^4a_2a_4^2+13860\,a_3^2a_1^6a_2+3960\,a_1^7a_3a_4+18900\,a_3^2a_1^4a_2^2)z^{14}+(25200\,a_3^3a_1^2a_2^2+27720\,a_3^2a_1^5a_4+7560\,a_1^3a_2^2a_4^2+5040\,a_1^5a_4a_6+9240\,a_1^6a_6a_3+5040\,a_1^3a_6a_2^3+15120\,a_3a_1^2a_2^3a_4+1680\,a_3a_6a_2a_4+37800\,a_3a_1^4a_4a_2^2+15120\,a_1^2a_6a_3a_2^2+15120\,a_3^2a_4a_1a_2^2+50400\,a_3^2a_1^3a_2a_4+5040\,a_1^5a_2^3a_4+1716\,a_1^{10}a_3a_2+1512\,a_1^2a_2^5a_3+12600\,a_3^3a_1^2a_4+12600\,a_3^2a_1^3a_6+12600\,a_1^4a_4^2a_3+7560\,a_1^5a_6a_2^2+3960\,a_1^7a_4a_2^2+840\,a_2^4a_3a_4+7560\,a_1^5a_2a_4^2+2520\,a_1^3a_4a_2^4+a_1^{15}+252\,a_3^5+4290\,a_1^9a_3^2+280\,a_3a_4^3+1260\,a_6^2a_1^3+11550\,a_3^4a_1^3+18480\,a_3^3a_1^6+252\,a_2^5a_1^5+504\,a_6a_3^3+182\,a_1^{12}a_3+14\,a_1^{13}a_2+1980\,a_1^7a_4^2+1680\,a_3^3a_2^3+1680\,a_1^3a_4^3+78\,a_1^{11}a_2^2+56\,a_2^6a_3+660\,a_1^9a_6+84\,a_1^3a_2^6+220\,a_2^3a_1^9+168\,a_3a_6^2+330\,a_1^7a_2^4+1120\,a_4^3a_2a_1+1680\,a_1a_2^3a_4^2+840\,a_2^4a_1a_6+10080\,a_1^3a_2a_6a_4+25200\,a_1^4a_6a_3a_2+7560\,a_3^2a_1a_6a_2+3360\,a_1a_6a_2^2a_4+1680\,a_4^2a_2^2a_3+25200\,a_3^2a_1^3a_2^3+1320\,a_1^9a_4a_2+3780\,a_3^2a_1a_2^4+8\,a_1a_2^7+156\,a_1^{11}a_4+27720\,a_3a_1^6a_4a_2+840\,a_6a_4^2a_1+840\,a_6^2a_1a_2+9240\,a_1^6a_2^3a_3+5940\,a_1^8a_3a_2^2+41580\,a_3^2a_1^5a_2^2+3960\,a_1^7a_6a_2+46200\,a_3^3a_1^4a_2+336\,a_1a_2^5a_4+6300\,a_3^4a_1a_2+1120\,a_2^3a_6a_3+2520\,a_3^3a_4a_2+3780\,a_3^2a_4^2a_1+23760\,a_3^2a_1^7a_2+5940\,a_3a_1^8a_4+6300\,a_1^4a_3a_2^4+15120\,a_3a_1^2a_2a_4^2+7560\,a_3a_6a_4a_1^2)z^{15}+(70\,a_4^4+56\,a_2^6a_4+5040\,a_1^2a_2a_4^3+55440\,a_1^5a_3a_6a_2+15120\,a_3a_6a_1a_4a_2+15840\,a_3a_1^7a_6+15120\,a_3a_1a_2^2a_4^2+10080\,a_3a_1a_2^3a_6+5040\,a_3a_1^3a_2^5+2184\,a_1^{11}a_3a_2+3780\,a_3^2a_2a_4^2+27720\,a_3a_1^5a_4^2+a_2^8+a_1^{16}+210\,a_1^4a_2^6+15\,a_1^{14}a_2+3150\,a_3^4a_2^2+1260\,a_3^4a_4+168\,a_2^5a_6+560\,a_4^3a_2^2+36\,a_2^7a_1^2+6006\,a_1^{10}a_3^2+495\,a_2^4a_1^8+858\,a_1^{10}a_6+420\,a_2^4a_4^2+3150\,a_1^4a_6^2+4200\,a_1^4a_4^3+2772\,a_3^5a_1+182\,a_1^{12}a_4+2970\,a_1^8a_4^2+420\,a_6^2a_2^2+462\,a_2^5a_1^6+69300\,a_3^2a_1^4a_2^3+13860\,a_1^6a_2a_4^2+18900\,a_1^4a_2^2a_4^2+16800\,a_3^3a_1a_2^3+5040\,a_3^2a_2^3a_4+110880\,a_3^3a_1^5a_2+38610\,a_1^8a_3^2a_2+83160\,a_1^6a_2^2a_3^2+34320\,a_3^3a_1^7+7560\,a_3a_1a_4a_2^4+47520\,a_1^7a_3a_2a_4+286\,a_1^{10}a_2^3+168\,a_4a_6^2+18900\,a_3^2a_1^2a_2^4+5940\,a_1^8a_6a_2+12600\,a_1^4a_6a_2^3+13860\,a_1^6a_6a_2^2+1512\,a_1^2a_2^5a_4+6300\,a_1^4a_4a_2^4+5040\,a_3^3a_1a_6+3780\,a_6a_4^2a_1^2+3780\,a_3^2a_6a_2^2+18900\,a_3^2a_1^2a_4^2+25200\,a_1^4a_2a_6a_4+34650\,a_3^2a_1^4a_6+34650\,a_3^4a_1^2a_2+46200\,a_3^3a_1^3a_4+9240\,a_1^6a_6a_4+3780\,a_6^2a_1^2a_2+1120\,a_6a_2^3a_4+2520\,a_3a_1a_4^3+3780\,a_1^2a_2^4a_6+8580\,a_1^9a_3a_2^2+1716\,a_1^{10}a_2a_4+7560\,a_1^2a_2^3a_4^2+55440\,a_3^2a_1^6a_4+8580\,a_3a_1^9a_4+504\,a_2^6a_3a_1+50400\,a_3a_1^3a_6a_2^2+756\,a_2^5a_3^2+34650\,a_3^4a_1^4+15120\,a_1^2a_6a_4a_2^2+25200\,a_3^3a_1a_4a_2+25200\,a_3a_1^3a_4a_6+138600\,a_3^2a_1^4a_4a_2+75600\,a_3^2a_1^2a_2^2a_4+50400\,a_3a_1^3a_2a_4^2+210\,a_1^{13}a_3+83160\,a_3a_1^5a_4a_2^2+91\,a_1^{12}a_2^2+50400\,a_3a_1^3a_2^3a_4+37800\,a_1^2a_3^2a_6a_2+1512\,a_6^2a_3a_1+840\,a_6a_4^2a_2+1512\,a_6a_3^2a_4+9240\,a_1^6a_2^3a_4+13860\,a_1^5a_3a_2^4+15840\,a_1^7a_3a_2^3+5940\,a_1^8a_4a_2^2+92400\,a_3^3a_1^3a_2^2)z^{16}+(37800\,a_3^2a_1a_6a_2^2+75600\,a_3a_1^2a_2^2a_4^2+50400\,a_3^2a_1a_2^3a_4+138600\,a_3^3a_1^2a_2a_4+12600\,a_3^3a_4a_2^2+92400\,a_3^3a_1^2a_2^3+27720\,a_3^3a_1^2a_6+23760\,a_1^7a_2a_4^2+504\,a_2^6a_1a_4+34650\,a_3^4a_1a_2^2+2184\,a_1^{11}a_4a_2+a_1^{17}+715\,a_2^4a_1^9+630\,a_4^4a_1+4290\,a_1^9a_4^2+60060\,a_3^3a_1^8+9240\,a_1^5a_4^3+120\,a_2^7a_1^3+462\,a_1^5a_2^6+240\,a_1^{14}a_3+210\,a_1^{13}a_4+2520\,a_3^3a_4^2+6930\,a_1^5a_6^2+4200\,a_3^3a_2^4+2772\,a_3^5a_2+1092\,a_1^{11}a_6+72\,a_2^7a_3+9\,a_1a_2^8+90090\,a_3^4a_1^5+8190\,a_1^{11}a_3^2+364\,a_2^3a_1^{11}+105\,a_1^{13}a_2^2+792\,a_1^7a_2^5+1512\,a_6^2a_2a_3+1512\,a_6^2a_1a_4+1512\,a_3a_6a_4^2+2520\,a_1^2a_3a_2^6+83160\,a_3^2a_1^5a_6+138600\,a_3^4a_1^3a_2+75600\,a_3a_1^2a_2a_6a_4+15840\,a_1^7a_6a_4+25740\,a_3a_1^8a_6+277200\,a_3^3a_1^4a_2^2+102960\,a_3^2a_1^7a_4+27720\,a_1^5a_6a_2^3+15840\,a_1^7a_2^3a_4+27720\,a_1^6a_3a_2^4+5040\,a_3^3a_2a_6+7560\,a_3a_6^2a_1^2+13860\,a_3^4a_1a_4+69300\,a_3^2a_1^3a_4^2+23760\,a_1^7a_6a_2^2+41580\,a_1^5a_2^2a_4^2+25200\,a_1^3a_2^3a_4^2+77220\,a_3a_1^8a_4a_2+12600\,a_1^3a_2^4a_6+69300\,a_3^2a_1^3a_2^4+3780\,a_1a_4^2a_2^4+1512\,a_2^5a_3a_4+7560\,a_3^2a_1a_2^5+16632\,a_3^5a_1^2+8580\,a_4a_1^9a_2^2+25740\,a_1^8a_2^3a_3+13860\,a_1^4a_2^5a_3+13860\,a_1^5a_4a_2^4+332640\,a_3^2a_1^5a_4a_2+138600\,a_1^4a_2a_4^2a_3+110880\,a_3a_1^6a_2a_6+37800\,a_4a_3a_1^2a_2^4+138600\,a_3a_1^4a_2^3a_4+37800\,a_3^2a_1a_2a_4^2+69300\,a_3a_1^4a_4a_6+138600\,a_3^2a_1^3a_6a_2+7560\,a_6a_4^2a_1a_2+7560\,a_3a_6a_4a_2^2+$$

$$55440\,a_1^5a_6a_2a_4 + 50400\,a_1^2a_3a_6a_2^3 + 138600\,a_1^4a_6a_3a_2^2 + 50400\,a_1^3a_6a_4a_2^2 + 10080\,a_4a_1a_6a_2^3 + 3780\,a_1a_6^2a_2^2 + 12600\,a_1^3a_6a_4^2 + 12600\,a_6^2a_1^3a_2 + 2520\,a_3a_2^4a_6 + 2520\,a_4^3a_2a_3 + 16800\,a_1^3a_2a_4^3 + 12600\,a_3a_1^2a_4^3 + 5040\,a_1a_2^2a_4^3 + 5040\,a_2^3a_3a_4^2 + 1512\,a_1a_6a_2^5 + 16\,a_1^{15}a_2 + 277200\,a_3^2a_1^3a_4a_2^2 + 15120\,a_3^2a_1a_6a_4 + 2730\,a_1^{12}a_2a_3 + 12012\,a_1^{10}a_3a_2^2 + 166320\,a_3^2a_1^5a_2^3 + 8580\,a_1^9a_2a_6 + 60060\,a_1^9a_3^2a_2 + 12012\,a_1^{10}a_3a_4 + 166320\,a_1^6a_2^2a_4a_3 + 154440\,a_1^7a_3^2a_2^2 + 5040\,a_1^3a_2^5a_4 + 240240\,a_3^3a_1^6a_2 + 138600\,a_3^3a_1^4a_4 + 55440\,a_3a_1^6a_4^2)z^{17} + (27720\,a_1^3a_3a_6^2 + 120\,a_1^{14}a_2^2 + 277200\,a_3a_1^3a_2^2a_4^2 + 69300\,a_1^4a_2^3a_4^2 + 27720\,a_3^3a_4^2a_1 + 34650\,a_6^2a_1^4a_2 + 450450\,a_3^4a_1^4a_2 + 33264\,a_1^5a_3a_2^5 + 480480\,a_3^3a_1^7a_2 + 38610\,a_1^8a_6a_2^2 + 16380\,a_3a_1^{11}a_2^2 + 18900\,a_4^2a_1^2a_2^4 + 7560\,a_6^2a_4a_1^2 + 3360\,a_1^{13}a_3a_2 + 720\,a_1a_2^7a_3 + 207900\,a_3^2a_1^4a_2^4 + 16380\,a_1^{11}a_3a_4 + 34650\,a_1^4a_4^2a_6 + 41580\,a_3^2a_1^2a_2^5 + 13860\,a_3^4a_4a_2 + a_2^9 + 924\,a_3^6 + 1680\,a_2^3a_4^3 + 18480\,a_1^6a_4^3 + 72072\,a_3^5a_1^3 + 11550\,a_3^4a_2^3 + 72\,a_2^7a_4 + 1001\,a_2^4a_1^{10} + 1365\,a_1^{12}a_6 + 1260\,a_6^2a_3^2 + 240\,a_1^{14}a_4 + 84\,a_6^3 + a_1^{18} + 1260\,a_2^6a_3^2 + 210210\,a_3^4a_1^6 + 756\,a_2^5a_4^2 + 252\,a_2^6a_6 + 3150\,a_1^2a_4^4 + 13860\,a_6^2a_1^6 + 2520\,a_3^2a_4^3 + 1287\,a_2^5a_1^8 + 2310\,a_6a_3^4 + 6006\,a_1^{10}a_4^2 + 924\,a_2^6a_1^6 + 272\,a_1^{15}a_3 + 10920\,a_3^2a_1^{12} + 180180\,a_1^8a_3^2a_4 + 2730\,a_1^{12}a_2a_4 + 504\,a_6a_4^3 + 207900\,a_3^4a_1^2a_2^2 + 25740\,a_1^8a_4a_6 + 1512\,a_6^2a_2a_4 + 360360\,a_1^6a_3^2a_2^3 + 1260\,a_6^2a_2^3 + 25200\,a_3a_1a_2^4a_6 + 50400\,a_3a_1a_2^3a_4^2 + 50400\,a_1^2a_2^3a_6a_4 + 184800\,a_3a_1^3a_6a_2^3 + 45\,a_2^8a_1^2 + 18900\,a_3^2a_2^2a_4^2 + 360360\,a_3^3a_1^5a_4 + 207900\,a_3^2a_1^4a_4^2 + 55440\,a_1^6a_6a_2^3 + 51480\,a_1^7a_3a_2^4 + 25740\,a_1^8a_2^3a_4 + 332640\,a_3a_1^5a_2a_4^2 + 100100\,a_3^3a_1^9 + 40040\,a_1^9a_3a_6 + 46200\,a_1^4a_2a_4^3 + 102960\,a_3a_1^7a_4^2 + 46200\,a_1a_3^3a_2^4 + 369600\,a_3^3a_1^3a_2^3 + 2520\,a_1^2a_2^6a_4 + 12012\,a_1^{10}a_6a_2 + 270270\,a_1^8a_3^2a_2^2 + 83160\,a_1^6a_2^2a_4^2 + 38610\,a_1^8a_2a_4^2 + 40040\,a_3a_1^9a_2^3 + 12012\,a_1^{10}a_4a_2^2 + 332640\,a_3a_1^5a_6a_2^2 + 205920\,a_3a_1^7a_6a_2 + 554400\,a_3^3a_1^3a_4a_2 + 138600\,a_3a_1^3a_4a_2^4 + 166320\,a_1^5a_3a_6a_4 + 55440\,a_3^3a_1a_6a_2 + 37800\,a_1^2a_2a_6a_4^2 + 207900\,a_3^2a_1^2a_2a_4^2 + 138600\,a_3^3a_1a_2^2a_4 + 25200\,a_3a_1a_2a_4^3 + 415800\,a_3^2a_1^4a_6a_2 + 120120\,a_3a_1^9a_4a_2 + 332640\,a_3a_1^5a_2^3a_4 + 308880\,a_1^7a_3a_4a_2^2 + 277200\,a_3a_1^3a_2a_6a_4 + 27720\,a_4a_1^6a_2^4 + 9240\,a_1^3a_3a_2^6 + 455\,a_2^3a_1^{12} + 110880\,a_1^6a_2a_6a_4 + 17\,a_1^{16}a_2 + 831600\,a_3^2a_1^4a_4a_2^2 + 15120\,a_3a_1a_2^5a_4 + 110880\,a_3^3a_1^3a_6 + 83160\,a_3^4a_1^2a_4 + 33264\,a_3^5a_1a_2 + 3780\,a_6a_4^2a_2^2 + 720720\,a_3^2a_1^6a_4a_2 + 46200\,a_3a_1^3a_4^3 + 180180\,a_3^2a_1^6a_6 + 18900\,a_1^2a_6^2a_2^2 + 330\,a_2^7a_1^4 + 12600\,a_3^2a_4a_2^4 + 12600\,a_3^2a_6a_2^3 + 2520\,a_4a_2^4a_6 + 25200\,a_1^2a_2^2a_4^3 + 630\,a_4^4a_2 + 7560\,a_1^2a_6a_2^5 + 34650\,a_1^4a_2^4a_6 + 90090\,a_1^{10}a_3^2a_2 + 720720\,a_3^3a_1^5a_2^2 + 75600\,a_6a_4a_3a_2^2a_1 + 13860\,a_1^4a_2^5a_4 + 277200\,a_3^2a_1^2a_2^3a_4 + 15120\,a_3a_1a_6^2a_2 + 15120\,a_1a_6a_3a_4^2 + 83160\,a_3^2a_1^2a_4a_6 + 207900\,a_3^2a_1^2a_6a_2^2 + 138600\,a_1^4a_6a_4a_2^2 + 15120\,a_2a_6a_3^2a_4)z^{18} + (21840\,a_4a_1^{12}a_3 + 60060\,a_1^{10}a_6a_3 + 12600\,a_2^2a_4^3a_3 + 27720\,a_6a_3^3a_2^2 + 450450\,a_1^9a_2^2a_3^2 + 166320\,a_3^3a_1^2a_4^2 + 9240\,a_1^3a_2^6a_4 + 69300\,a_6^2a_1^3a_2^2 + 300300\,a_3^2a_1^9a_4 + 138600\,a_3a_1^4a_4^3 + 83160\,a_1^5a_2^4a_6 + 720\,a_1a_2^7a_4 + 16800\,a_2^3a_4^3a_1 + 720720\,a_1^7a_3^2a_2^3 + 27720\,a_6^2a_1^3a_4 + 27720\,a_1^3a_6a_2^5 + 900900\,a_3^3a_1^8a_2 + 540540\,a_3^2a_1^5a_2^4 + a_1^{19} + 272\,a_1^{15}a_4 + 5544\,a_3^5a_4 + 11550\,a_1^3a_4^4 + 450450\,a_3^4a_1^7 + 840\,a_6^3a_1 + 8190\,a_1^{11}a_4^2 + 792\,a_2^7a_1^5 + 2002\,a_2^5a_1^9 + 1680\,a_1^{13}a_6 + 18\,a_2a_1^{17} + 16632\,a_3^5a_2^2 + 1260\,a_3a_4^4 + 25740\,a_1^7a_6^2 + 9240\,a_2^5a_3^3 + 252252\,a_3^5a_1^4 + 160160\,a_3^3a_1^{10} + 34320\,a_1^7a_4^3 + 165\,a_1^3a_2^8 + 306\,a_1^{16}a_3 + 14280\,a_3^2a_1^{13} + 1365\,a_1^{11}a_2^4 + 60060\,a_1^9a_2a_4^2 + 360360\,a_1^6a_3a_6a_4 + 15120\,a_6^2a_1a_4a_2 + 166320\,a_1^5a_2^3a_4^2 + 1261260\,a_3^4a_1^5a_2 + 138600\,a_3^4a_1a_2^3 + 831600\,a_3^2a_1^3a_2a_4^2 + 900900\,a_3^4a_1^3a_2^2 + 92400\,a_1^3a_2^2a_4^3 + 27720\,a_3^2a_1a_4^3 + 25200\,a_1a_6a_2^4a_4 + 138600\,a_3a_1^2a_2a_4^3 + 166320\,a_3^4a_1a_2a_4 + 207900\,a_3^2a_1a_2^2a_4^2 + 415800\,a_3a_6a_1^2a_4a_2^2 + 12600\,a_6^2a_1a_2^3 + 6300\,a_2a_4^4a_1 + 12600\,a_2^4a_4^2a_3 + 360360\,a_3^2a_1^7a_6 + 540540\,a_1^8a_3a_4a_2^2 + 415800\,a_3a_1^4a_4a_2^4 + 12012\,a_3^6a_1 + 216216\,a_3^5a_1^2a_2 + 360360\,a_3^4a_1^3a_4 + 840840\,a_3^3a_1^6a_4 + 1201200\,a_3^3a_1^4a_2^3 + 1801800\,a_3^3a_1^4a_4a_2 + 1681680\,a_3^3a_1^6a_2^2 + 180180\,a_1^8a_4^2a_3 + 277200\,a_3^3a_1^2a_2^4 + 2520\,a_2^6a_1a_6 + 13860\,a_3^2a_1a_2^6 + 2520\,a_2^6a_3a_4 + 13860\,a_3^2a_6^2a_1 + 27720\,a_3^4a_6a_1 + 27720\,a_3^3a_2a_4^2 + 360360\,a_3^3a_1^4a_6 + 83160\,a_1^5a_6^2a_2 + 205920\,a_1^7a_2a_6a_4 + 831600\,a_3a_1^4a_2^2a_4^2 + 277200\,a_3a_1^2a_2^3a_4^2 + 2162160\,a_3^2a_1^5a_4a_2^2 + 554400\,a_1^4a_2^3a_6a_3 + 1108800\,a_3^2a_1^3a_2^3a_4 +$$

$$1441440\,a_3^2a_1^7a_2a_4 + 720720\,a_3a_1^6a_6a_2^2 + 360360\,a_3a_1^8a_6a_2 + 720720\,a_3a_1^6a_2a_4^2 + 332640\,a_1^5a_6a_2^2a_4 + 138600\,a_1a_3^2a_4a_2^4 + 83160\,a_3a_1^2a_2^5a_4 + 138600\,a_3a_1^2a_2^4a_6 + 25200\,a_3a_6a_2^3a_4 + 37800\,a_6a_4^2a_1a_2^2 + 184800\,a_1^3a_2^3a_6a_4 + 560\,a_1^{13}a_2^3 + 138600\,a_3^2a_1a_6a_2^3 + 3360\,a_1^{13}a_4a_2 + 16380\,a_4a_1^{11}a_2^2 + 131040\,a_3^2a_1^{11}a_2 + 60060\,a_3a_1^{10}a_2^3 + 51480\,a_4a_1^7a_2^4 + 72072\,a_1^6a_2^5a_3 + 7560\,a_3a_6^2a_2^2 + 4080\,a_1^{14}a_3a_2 + 40040\,a_2^3a_1^9a_4 + 90090\,a_3a_1^8a_2^4 + 138600\,a_1^3a_2a_6a_4^2 + 15120\,a_2a_6a_3a_4^2 + 332640\,a_3^2a_1^3a_4a_6 + 332640\,a_3^3a_1^2a_6a_2 + 831600\,a_3a_1^4a_6a_2a_4 + 1716\,a_2^6a_1^7 + 166320\,a_3^2a_1a_6a_2a_4 + 90\,a_2^8a_3 + 180180\,a_1^{10}a_3a_2a_4 + 16380\,a_1^{11}a_6a_2 + 720720\,a_3a_1^6a_2^3a_4 + 2520\,a_6^2a_3a_4 + 166320\,a_1^3a_2^5a_3^2 + 102960\,a_1^7a_6a_2^3 + 21840\,a_3a_1^{12}a_2^2 + 27720\,a_3a_1^4a_2^6 + 540540\,a_3^2a_1^5a_4^2 + 136\,a_1^{15}a_2^2 + 40040\,a_1^9a_4a_6 + 110880\,a_1^5a_2a_4^3 + 7560\,a_2^5a_1a_4^2 + 83160\,a_3a_1^4a_6^2 + 83160\,a_1^5a_4^2a_6 + 5040\,a_1a_6a_4^3 + 9240\,a_6a_3^3a_4 + 46200\,a_3^3a_2^3a_4 + 33264\,a_1^5a_2^5a_4 + 3960\,a_1^2a_2^7a_3 + 831600\,a_3^3a_1^2a_4a_2^2 + 5040\,a_2^5a_3a_6 + 69300\,a_1^3a_4^2a_2^4 + 1081080\,a_3^2a_1^5a_6a_2 + 83160\,a_1^2a_6a_3a_4^2 + 83160\,a_6^2a_3a_1^2a_2 + 154440\,a_1^7a_2^2a_4^2 + 60060\,a_1^9a_6a_2^2 + 10\,a_1a_2^9 + 831600\,a_3^2a_1^3a_6a_2^2)z^{19} + (12600\,a_6a_4^2a_2^3 + 540540\,a_3^2a_1^4a_2^5 + 3603600\,a_3^3a_1^7a_2^2 + 180180\,a_1^6a_6^2a_2 + 207900\,a_6^2a_1^4a_2^2 + 1801800\,a_3^3a_1^7a_4 + 480480\,a_1^{10}a_3^2a_4 + 1009008\,a_3^5a_1^3a_2 + 15840\,a_1^3a_2^7a_3 + 90090\,a_1^8a_4a_2^4 + 83160\,a_1^4a_6a_2^5 + 5040\,a_6a_2a_4^3 + 72072\,a_3^5a_1a_4 + 90090\,a_1^{10}a_6a_2^2 + 28560\,a_1^{13}a_3a_2^2 + 180180\,a_1^8a_6a_2^3 + 1351350\,a_1^8a_3^2a_2^3 + 3363360\,a_3^3a_1^5a_2^3 + 69300\,a_3^2a_2^3a_4^2 + 72072\,a_1^6a_2^5a_4 + 83160\,a_1^2a_3^2a_2^6 + 60060\,a_4a_1^{10}a_2^3 + 1261260\,a_3^4a_1^4a_4 + 1261260\,a_1^6a_3^2a_2^4 + a_1^{20} + 45045\,a_1^8a_6^2 + 1980\,a_2^7a_3^2 + 13860\,a_3^4a_4^2 + 60060\,a_1^8a_4^3 + 360\,a_2^7a_6 + 1716\,a_1^6a_2^7 + 3003\,a_1^8a_2^6 + 495\,a_2^8a_1^4 + 2040\,a_1^{14}a_6 + 153\,a_1^{16}a_2^2 + a_2^{10} + 252\,a_4^5 + 3150\,a_2^2a_4^4 + 4200\,a_2^4a_4^3 + 1260\,a_2^6a_4^2 + 34650\,a_2^4a_3^4 + 756756\,a_3^5a_1^5 + 84084\,a_3^6a_1^2 + 840\,a_2a_6^3 + 10920\,a_4^2a_1^{12} + 306\,a_1^{16}a_4 + 342\,a_1^{17}a_3 + 247520\,a_3^3a_1^{11} + 72072\,a_3a_1^5a_2^6 + 1260\,a_6^2a_4^2 + 87360\,a_1^{11}a_3a_6 + 90090\,a_1^{10}a_2a_4^2 + 332640\,a_3^3a_2a_4^2a_1 + 27720\,a_1^4a_2^6a_4 + 900900\,a_3^4a_1^8 + 720720\,a_1^7a_6a_3a_4 + 554400\,a_3a_1^3a_2^4a_6 + 138600\,a_1a_3a_4^2a_2^4 + 27720\,a_3a_1a_2^6a_4 + 166320\,a_6a_4^2a_3a_1a_2 + 90\,a_2^8a_4 + 69300\,a_1^2a_6^2a_2^3 + 5040\,a_2^5a_6a_4 + 13860\,a_6a_4^2a_3^2 + 13860\,a_3a_1a_4^4 + 1081080\,a_3^2a_1^4a_6a_4 + 277200\,a_1^4a_2^2a_4^3 + 240240\,a_1^6a_2a_4^3 + 60060\,a_1^{10}a_6a_4 + 3153150\,a_3^4a_1^6a_2 + 34650\,a_1^4a_4^4 + 3603600\,a_3^2a_1^4a_2^3a_4 + 831600\,a_3^2a_4a_1^2a_2^4 + 360360\,a_1^8a_2a_6a_4 + 1441440\,a_3a_1^7a_4^2a_2 + 3150\,a_6^2a_2^4 + 2522520\,a_3^2a_1^6a_6a_2 + 554400\,a_3^3a_1a_2^3a_4 + 3603600\,a_3^3a_1^3a_4a_2^2 + 5045040\,a_3^3a_1^5a_4a_2 + 180180\,a_3^4a_1^2a_6 + 27720\,a_3^4a_6a_2 + 13860\,a_3^2a_6^2a_2 + 7560\,a_6^2a_4a_2^2 + 166320\,a_3^2a_1^2a_4^3 + 1009008\,a_3^3a_1^5a_6 + 216216\,a_1^5a_3a_6^2 + 180180\,a_1^6a_6a_4^2 + 83160\,a_3^2a_6^2a_1^2 + 83160\,a_1^4a_4a_6^2 + 332640\,a_3a_1^3a_6a_4^2 + 34650\,a_1^2a_2a_4^4 + 332640\,a_3^3a_1a_6a_2^2 + 27720\,a_6a_1^2a_4^3 + 34650\,a_3^2a_6a_2^4 + 83160\,a_3^4a_2^2a_4 + 27720\,a_3^2a_2a_4^3 + 27720\,a_6^2a_3a_1a_4 + 332640\,a_6^2a_3a_1^3a_2 + 415800\,a_1^4a_2a_6a_4^2 + 83160\,a_6^2a_1^2a_2a_4 + 1441440\,a_3a_1^7a_2^3a_4 + 332640\,a_1^3a_2^5a_3a_4 + 4620\,a_6^3a_1^2 + 997920\,a_3^2a_1^2a_2a_6a_4 + 12012\,a_3^6a_2 + 1663200\,a_3a_1^3a_6a_4a_2^2 + 2162160\,a_1^5a_3a_6a_2a_4 + 1261260\,a_3^2a_1^6a_4^2 + 13860\,a_1^2a_2^6a_6 + 92400\,a_1^2a_2^3a_4^3 + 27720\,a_2^5a_3^2a_4 + 110880\,a_3^3a_1a_2^5 + 41580\,a_1^2a_2^5a_4^2 + 1201200\,a_3^3a_1^3a_2^4 + 675675\,a_3^2a_1^8a_6 + 900900\,a_3^4a_1^2a_2^3 + 3003\,a_2^5a_1^{10} + 1820\,a_2^4a_1^{12} + 19\,a_2a_1^{18} + 680\,a_2^3a_1^{14} + 262080\,a_4a_1^{11}a_3a_2 + 4896\,a_1^{15}a_3a_2 + 150150\,a_3a_2^4a_1^9 + 18360\,a_3^2a_1^{14} + 21840\,a_4a_1^{12}a_2^2 + 87360\,a_3a_1^{11}a_2^3 + 185640\,a_3^2a_1^{12}a_2 + 28560\,a_3a_1^{13}a_4 + 21840\,a_1^{12}a_2a_6 + 1601600\,a_3^3a_1^9a_2 + 83160\,a_3a_6^2a_2^2a_1 + 55\,a_2^9a_1^2 + 300300\,a_3a_1^9a_4^2 + 270270\,a_1^8a_2^2a_4^2 + 360360\,a_1^6a_2^3a_4^2 + 207900\,a_6a_4^2a_1^2a_2^2 + 180180\,a_1^6a_2^4a_6 + 144144\,a_3a_1^7a_2^5 + 3960\,a_1^2a_2^7a_4 + 110880\,a_3^3a_6a_1a_4 + 990\,a_1a_2^8a_3 + 138600\,a_3a_1a_2^2a_4^3 + 83160\,a_3^2a_6a_2^2a_4 + 2702700\,a_3^2a_6a_1^4a_2^2 + 831600\,a_3^2a_6a_1^2a_2^3 + 55440\,a_6a_3a_1a_2^5 + 138600\,a_1^2a_6a_2^4a_4 + 2702700\,a_3^2a_1^4a_2a_4^2 + 1247400\,a_3^2a_1^2a_2^2a_4^2 + 2702700\,a_1^8a_3^2a_4a_2 + 1081080\,a_3a_1^5a_4a_2^4 + 277200\,a_6a_4a_3a_1a_2^3 + 720720\,a_3^3a_1^3a_4^2 + 216216\,a_3^5a_1a_2^2 + 360360\,a_3a_1^5a_4^3 + 3153150\,a_3^4a_1^4a_2^2 + 554400\,a_3a_1^3a_2a_4^3 + 1081080\,a_3^4a_1^2a_4a_2 + 1441440\,a_3a_1^7a_6a_2^2 + 1441440\,a_3a_1^5a_6a_2^3 + 600600\,a_1^9a_3a_6a_2 + 554400\,a_1^4a_6a_2^3a_4 + 2162160\,a_3a_1^5a_2^2a_4^2 + 5045040\,a_3^2a_1^6a_4a_2^2 + 1108800\,a_3a_1^3a_2^3a_4^2 +$$

$$720720\,a_1{}^6a_6a_4a_2{}^2+207900\,a_1{}^4a_4{}^2a_2{}^4+1441440\,a_3{}^3a_1{}^3a_6a_2+4080\,a_1{}^{14}a_2a_4+720720\,a_3{}^2a_1{}^{10}a_2{}^2+900900\,a_4a_1{}^9a_2{}^2a_3)z^{20}+(138600\,a_2{}^4a_3{}^3a_4+13860\,a_1a_4{}^2a_2{}^6+504504\,a_3{}^5a_1{}^2a_4+720720\,a_1{}^5a_2{}^2a_4{}^3+450450\,a_3{}^4a_1a_2{}^4+15840\,a_1{}^3a_2{}^7a_4+110880\,a_6a_3{}^3a_2{}^3+34650\,a_2{}^4a_1a_6{}^2+13860\,a_1a_6{}^2a_4{}^2+138600\,a_1{}^3a_2a_4{}^4+87360\,a_1{}^{11}a_6a_4+72072\,a_1{}^5a_2{}^6a_4+46200\,a_2{}^3a_3a_4{}^3+51480\,a_1{}^4a_2{}^7a_3+27720\,a_2{}^5a_3a_4{}^2+3603600\,a_3{}^3a_1{}^8a_4+720720\,a_3{}^3a_1{}^2a_2{}^5+168168\,a_1{}^6a_3a_2{}^6+1513512\,a_3{}^5a_1{}^2a_2{}^2+4896\,a_1{}^{15}a_4a_2+13860\,a_2a_3a_4{}^4+2402400\,a_3{}^2a_1{}^9a_2{}^3+36720\,a_1{}^{14}a_3a_2{}^2+8408400\,a_3{}^3a_1{}^6a_2{}^3+1201200\,a_3{}^2a_1{}^9a_6+216216\,a_1{}^5a_4a_6{}^2+2702700\,a_3{}^2a_1{}^7a_4{}^2+2522520\,a_6a_3{}^3a_1{}^6+3783780\,a_3{}^5a_1{}^4a_2+7920\,a_6{}^2a_3{}^3+371280\,a_3{}^3a_1{}^{12}+23256\,a_3{}^2a_1{}^{15}+2448\,a_1{}^{15}a_6+2380\,a_1{}^{13}a_2{}^4+220\,a_2{}^9a_1{}^3+3432\,a_1{}^7a_2{}^7+3432\,a_3{}^7+5005\,a_2{}^6a_1{}^9+20\,a_1{}^{19}a_2+4368\,a_1{}^{11}a_2{}^5+1320\,a_6{}^3a_3+9240\,a_6a_4{}^3a_3+1081080\,a_1{}^5a_6a_2a_4{}^2+166320\,a_6{}^2a_3{}^2a_1a_2+166320\,a_6{}^2a_3a_1{}^2a_4+5405400\,a_3a_6a_1{}^4a_2{}^2a_4+997920\,a_3a_6a_1{}^2a_4{}^2a_2+83160\,a_6{}^2a_1a_4a_2{}^2+2702700\,a_3a_1{}^8a_2a_4{}^2+166320\,a_1{}^2a_3a_2{}^6a_4+10810800\,a_3{}^2a_1{}^7a_4a_2{}^2+110\,a_2{}^9a_3+5940\,a_1{}^2a_2{}^8a_3+1287\,a_1{}^5a_2{}^8+4324320\,a_3{}^2a_1{}^3a_6a_2a_4+1663200\,a_3a_1{}^2a_2{}^3a_6a_4+83160\,a_3a_6a_2{}^2a_4{}^2+55440\,a_6a_4{}^3a_2a_1+332640\,a_3{}^2a_1a_2a_4{}^3+831600\,a_1{}^3a_6a_4{}^2a_2{}^2+55440\,a_2{}^5a_1a_6a_4+3027024\,a_3{}^2a_1{}^5a_6a_4+90090\,a_1{}^5a_4{}^4+5045040\,a_3{}^3a_1{}^4a_6a_2+332640\,a_6{}^2a_1{}^3a_2a_4+1081080\,a_1{}^4a_3a_6{}^2a_2+1081080\,a_3a_1{}^4a_4{}^2a_6+144144\,a_1{}^7a_2{}^5a_4+18480\,a_3{}^3a_2{}^6+2018016\,a_3{}^5a_1{}^6+332640\,a_1{}^2a_6a_3a_2{}^5+332640\,a_3{}^2a_1a_2{}^5a_4+138600\,a_6a_4{}^2a_1a_2{}^3+415800\,a_3{}^2a_1a_2{}^4a_6+720720\,a_3{}^3a_1{}^2a_4a_6+2162160\,a_3{}^3a_1{}^2a_6a_2{}^2+27720\,a_2a_3a_6{}^2a_4+166320\,a_3{}^2a_6a_4{}^2a_1+360360\,a_3{}^4a_6a_1a_2+997920\,a_3{}^2a_1a_2{}^2a_6a_4+69300\,a_6a_4a_3a_2{}^4+3603600\,a_3{}^2a_1{}^3a_2{}^3a_6+371280\,a_3a_1{}^{12}a_4a_2+1513512\,a_3{}^2a_1{}^5a_2{}^5+216216\,a_1{}^5a_6a_2{}^5+360360\,a_1{}^7a_2{}^4a_6+720720\,a_1{}^7a_2{}^3a_4{}^2+360360\,a_1{}^3a_3{}^2a_2{}^6+166320\,a_1{}^3a_2{}^5a_4{}^2+100100\,a_1{}^9a_4{}^3+540540\,a_1{}^5a_4{}^2a_2{}^4+2522520\,a_3a_1{}^6a_4a_2{}^4+1081080\,a_1{}^4a_2{}^5a_3a_4+498960\,a_3a_6{}^2a_1{}^2a_2{}^2+75075\,a_1{}^9a_6{}^2+990\,a_2{}^8a_1a_4+110880\,a_3{}^3a_6a_4a_2+7567560\,a_3{}^2a_1{}^5a_2a_4{}^2+3603600\,a_1{}^4a_4{}^2a_3a_2{}^3+1441440\,a_1{}^7a_6a_4a_2{}^2+5045040\,a_3a_1{}^6a_6a_4a_2+12612600\,a_3{}^3a_1{}^6a_2a_4+831600\,a_3a_1{}^2a_2{}^2a_4{}^3+7567560\,a_1{}^5a_6a_3{}^2a_2{}^2+9240\,a_2{}^6a_6a_3+34650\,a_1a_4{}^4a_2{}^2+277200\,a_1{}^3a_6{}^2a_2{}^3+83160\,a_1{}^2a_3a_4{}^4+420420\,a_3{}^6a_1{}^3+600600\,a_1{}^9a_6a_2a_4+10090080\,a_3{}^2a_1{}^5a_4a_2{}^3+2702700\,a_1{}^8a_6a_3a_2{}^2+831600\,a_3a_1{}^2a_4{}^2a_2{}^4+27720\,a_6{}^2a_2{}^3a_3+166320\,a_3{}^3a_2{}^2a_4{}^2+72072\,a_3{}^5a_2{}^3+3363360\,a_3a_1{}^6a_6a_2{}^3+1801800\,a_3a_1{}^4a_2a_4{}^3+831600\,a_3{}^2a_1a_2{}^3a_4{}^2+3603600\,a_3{}^2a_1{}^3a_4a_2{}^4+1441440\,a_1{}^5a_6a_2{}^3a_4+554400\,a_1{}^3a_6a_2{}^4a_4+816\,a_2{}^3a_1{}^{15}+1801800\,a_3a_1{}^4a_2{}^4a_6+1081080\,a_3{}^4a_1a_4a_2{}^2+2162160\,a_3{}^3a_1{}^2a_2a_4{}^2+7207200\,a_3{}^4a_1{}^7a_2+168168\,a_3{}^6a_1a_2+4204200\,a_3{}^3a_1{}^4a_2{}^4+840840\,a_3a_1{}^6a_4{}^3+360360\,a_1{}^7a_6{}^2a_2+9240\,a_6{}^3a_1a_2+180180\,a_3{}^4a_1a_4{}^2+504504\,a_3a_1{}^6a_6{}^2+360360\,a_6{}^2a_3{}^2a_1{}^3+540540\,a_1{}^5a_6{}^2a_2{}^2+72072\,a_3{}^5a_2a_4+840840\,a_3{}^4a_6a_1{}^3+110880\,a_1{}^3a_6a_4{}^3+10296\,a_6a_3{}^5+5405400\,a_3{}^2a_1{}^7a_6a_2+3603600\,a_3{}^3a_1{}^2a_2{}^3a_4+18480\,a_6{}^3a_1{}^3+1351350\,a_3a_1{}^8a_4a_6+18480\,a_3{}^3a_4{}^3+55440\,a_1{}^3a_2{}^6a_6+3960\,a_2{}^7a_3a_4+23760\,a_2{}^7a_3{}^2a_1+3960\,a_2{}^7a_1a_6+5045040\,a_3{}^4a_1{}^3a_4a_2+5045040\,a_1{}^6a_4{}^2a_3a_2{}^2+12612600\,a_3{}^3a_1{}^4a_4a_2{}^2+5405400\,a_3{}^2a_1{}^3a_2{}^2a_4{}^2+2772\,a_1a_4{}^5+480480\,a_1{}^7a_4{}^3a_2+3783780\,a_3{}^4a_1{}^5a_4+2522520\,a_3{}^3a_1{}^4a_4{}^2+46200\,a_1a_4{}^3a_2{}^4+369600\,a_1{}^3a_2{}^3a_4{}^3+4204200\,a_3{}^4a_1{}^3a_2{}^3+360360\,a_1{}^7a_6a_4{}^2+300300\,a_1{}^9a_6a_2{}^3+2702700\,a_3{}^2a_1{}^7a_2{}^4+720720\,a_3{}^2a_1{}^3a_4{}^3+9459450\,a_3{}^4a_1{}^5a_2{}^2+960960\,a_1{}^{10}a_6a_3a_2+450450\,a_1{}^9a_2{}^2a_4{}^2+480480\,a_1{}^{10}a_3a_4{}^2+2702700\,a_1{}^8a_2{}^3a_3a_4+14280\,a_1{}^{13}a_4{}^2+123760\,a_1{}^{12}a_2{}^3a_3+270270\,a_3a_2{}^5a_1{}^8+28560\,a_1{}^{13}a_6a_2+131040\,a_4{}^2a_1{}^{11}a_2+a_1{}^{21}+4804800\,a_3{}^2a_1{}^9a_4a_2+342\,a_1{}^{17}a_4+742560\,a_4a_1{}^{11}a_3{}^2+150150\,a_4a_2{}^4a_1{}^9+380\,a_1{}^{18}a_3+7207200\,a_3{}^3a_1{}^8a_2{}^2+1701700\,a_3{}^4a_1{}^9+131040\,a_6a_1{}^{11}a_2{}^2+87360\,a_1{}^{11}a_2{}^3a_4+240240\,a_3a_1{}^{10}a_2{}^4+11\,a_1a_2{}^{10}+2722720\,a_3{}^3a_1{}^{10}a_2+123760\,a_6a_1{}^{12}a_3+28560\,a_1{}^{13}a_4a_2{}^2+5814\,a_1{}^{16}a_3a_2+1113840\,a_3{}^2a_1{}^{11}a_2{}^2+36720\,a_3a_1{}^{14}a_4+257040\,a_3{}^2a_1{}^{13}a_2+1441440\,a_3a_1{}^{10}a_4a_2{}^2+171\,a_1{}^{17}a_2{}^2)z^{21}+(-1670760\,a_3a_1{}^{11}a_2{}^4-18378360\,a_3{}^4a_1{}^8a_2-3603600\,a_1{}^8a_2{}^3a_4{}^2-495040\,a_1{}^{12}a_6a_2{}^2-30270240\,a_3{}^4a_1{}^6a_2{}^2-810810\,a_1{}^8a_4{}^2a_6-7920\,a_6{}^2a_2a_4{}^2-411840\,a_3{}^2a_1{}^2a_2{}^7-3363360\,a_1{}^6a_2{}^4a_4{}^2-47520\,a_6{}^2a_4{}^2a_1{}^2-300300\,a_3{}^4a_2{}^3a_4-3363360\,a_1{}^4a_2{}^6a_3{}^2-1921920\,a_1{}^{10}a_2{}^2a_4{}^2-221760\,a_2{}^6a_1{}^2a_4{}^2-23100\,a_6a_4{}^3a_2{}^2-124032\,a_1{}^{15}a_4a_3-102960\,a_3{}^4a_2a_4{}^2-$$

$$1801800\,a_1{}^8a_6a_2{}^4-2102100\,a_1{}^4a_2{}^3a_4{}^3-1513512\,a_1{}^6a_6{}^2a_2{}^2-216580\,a_1{}^{12}a_4a_6-5885880\,a_1{}^3a_2{}^5a_3{}^3-2942940\,a_1{}^6a_2{}^2a_4{}^3-16170\,a_4a_2{}^6a_6-102960\,a_6a_3{}^4a_2{}^2-33633600\,a_1{}^7a_3{}^3a_2{}^3-2102100\,a_3{}^2a_1{}^4a_4{}^3-4804800\,a_3{}^3a_1{}^7a_6-10\,a_1{}^{22}-10\,a_2{}^{11}-7920\,a_3{}^2a_4{}^4-280280\,a_1{}^{10}a_4{}^3-48048\,a_3{}^6a_2{}^2-4084080\,a_3{}^5a_1{}^7-1890\,a_1{}^{19}a_3-34320\,a_6{}^3a_1{}^4-1710\,a_1{}^{18}a_4-495\,a_6{}^3a_4-1320\,a_6a_4{}^4-252252\,a_1{}^6a_4{}^4-9009\,a_3{}^6a_4-19305\,a_3{}^7a_1-108108\,a_2{}^5a_3{}^4-960960\,a_3{}^6a_1{}^4-3675672\,a_3{}^4a_1{}^{10}-7920\,a_2{}^8a_3{}^2-1949220\,a_4a_1{}^{12}a_3{}^2-2450448\,a_3{}^2a_1{}^{10}a_6-1216215\,a_4a_1{}^8a_2{}^5-30030\,a_1{}^6a_2{}^8-7150\,a_2{}^9a_1{}^4-64350\,a_1{}^8a_2{}^7-15135120\,a_3{}^2a_1{}^4a_6a_2{}^3-1201200\,a_3{}^3a_1a_6a_2{}^3-949620\,a_3{}^3a_1{}^{13}-9690\,a_2{}^3a_1{}^{16}-26730\,a_1{}^2a_2{}^8a_4-8910\,a_6{}^2a_3{}^2a_4-22072050\,a_3{}^3a_1{}^5a_2{}^4-231660\,a_1{}^4a_2{}^7a_4-7752\,a_1{}^{16}a_6-823680\,a_3{}^3a_1a_6a_2a_4-5405400\,a_3{}^2a_1{}^2a_6a_2{}^2a_4-18162144\,a_3a_1{}^5a_6a_2{}^2a_4-80080\,a_2{}^6a_1{}^{10}-1281280\,a_1{}^{10}a_6a_2{}^3-12612600\,a_3{}^2a_1{}^4a_4a_6a_2-415800\,a_6{}^2a_1{}^2a_4a_2{}^2-831600\,a_2{}^2a_6a_3a_4{}^2a_1-99792\,a_2{}^5a_3{}^2a_6-1081080\,a_6{}^2a_1{}^4a_2{}^3-249480\,a_2{}^4a_4{}^2a_3{}^2-138600\,a_2{}^2a_4{}^3a_3{}^2-6486480\,a_3{}^2a_1{}^8a_4{}^2-249480\,a_6{}^2a_1{}^2a_2{}^4-540540\,a_2a_4{}^4a_1{}^4-249480\,a_2{}^2a_4{}^4a_1{}^2-3603600\,a_1{}^3a_6a_3a_4{}^2a_2-1576575\,a_1{}^8a_4{}^3a_2-420420\,a_2{}^6a_3{}^3a_1-900900\,a_6{}^2a_1{}^4a_4a_2-31680\,a_6{}^3a_1{}^2a_2-10090080\,a_3{}^5a_1{}^5a_2-1345344\,a_1{}^6a_2{}^5a_6-480480\,a_1{}^4a_6a_2{}^6-18918900\,a_3{}^4a_1{}^4a_2{}^3-840840\,a_3{}^5a_1a_2{}^3-210\,a_1{}^{20}a_2-3783780\,a_3{}^4a_1{}^2a_2{}^4-1441440\,a_1{}^4a_4{}^2a_2{}^5-277200\,a_3a_6{}^2a_2{}^3a_1-6306300\,a_3{}^3a_1{}^5a_4{}^2-7796880\,a_3{}^3a_1{}^{11}a_2-1441440\,a_3{}^5a_1{}^3a_4-8408400\,a_3{}^4a_1{}^6a_4-6306300\,a_3{}^5a_1{}^3a_2{}^2-720720\,a_3{}^6a_1{}^2a_2-3243240\,a_3{}^2a_1{}^2a_6a_2{}^4-22702680\,a_3{}^2a_1{}^6a_6a_2{}^2-8408400\,a_3{}^3a_1{}^3a_6a_2{}^2-2882880\,a_1{}^9a_3a_6a_4-61880\,a_1{}^{12}a_2{}^5-54054\,a_3{}^5a_6a_1-1370880\,a_4a_1{}^{13}a_3a_2-720720\,a_3{}^2a_6{}^2a_1{}^4-38610\,a_3{}^3a_6{}^2a_1-1801800\,a_3{}^4a_6a_1{}^4-1801800\,a_3a_6{}^2a_2{}^2a_1{}^3-30600\,a_1{}^{14}a_2{}^4-617760\,a_6{}^2a_3{}^2a_1{}^2a_2-3243240\,a_1{}^4a_2{}^2a_6a_4{}^2-95040\,a_2a_6a_3{}^2a_4{}^2-3027024\,a_1{}^6a_2a_6a_4{}^2-617760\,a_1{}^2a_6a_3{}^2a_4{}^2-2522520\,a_6{}^2a_3a_1{}^5a_2-2522520\,a_1{}^5a_6a_3a_4{}^2-6306300\,a_1{}^6a_3{}^2a_6a_4-12972960\,a_3{}^2a_1{}^8a_6a_2-12612600\,a_3{}^3a_1{}^5a_6a_2-1441440\,a_3{}^4a_1{}^2a_6a_2-14294280\,a_3{}^2a_1{}^{10}a_4a_2-63360\,a_2{}^7a_1{}^2a_6-97020\,a_2{}^6a_3{}^2a_4-45405360\,a_3{}^3a_1{}^5a_4a_2{}^2-6306300\,a_3{}^4a_1{}^2a_4a_2{}^2-22702680\,a_3{}^2a_1{}^4a_2{}^2a_4{}^2-4729725\,a_1{}^8a_2{}^2a_6a_4-13860\,a_1{}^2a_4{}^5-1801800\,a_3{}^3a_2{}^2a_4{}^2a_1-277200\,a_1{}^2a_6a_4{}^3a_2-20180160\,a_3{}^3a_2{}^3a_4a_1{}^3-2162160\,a_3{}^3a_2{}^4a_4a_1-1801800\,a_3{}^2a_1{}^2a_4{}^3a_2-576576\,a_3{}^5a_4a_1a_2-8408400\,a_3{}^3a_2a_4{}^2a_1{}^3-6054048\,a_3a_1{}^5a_4{}^3a_2-1681680\,a_1{}^{10}a_4a_6a_2-1921920\,a_2{}^6a_3a_4a_1{}^3-22702680\,a_3{}^2a_1{}^6a_4{}^2a_2-15765750\,a_3{}^4a_1{}^4a_4a_2-34594560\,a_3{}^3a_1{}^7a_4a_2-1900\,a_1{}^{18}a_2{}^2-37837800\,a_1{}^8a_3{}^2a_4a_2{}^2-22072050\,a_3{}^2a_1{}^4a_4a_2{}^4-8072064\,a_3a_1{}^5a_4a_2{}^5-8648640\,a_3a_6a_1{}^3a_4a_2{}^3-4324320\,a_2{}^2a_4{}^3a_3a_1{}^3-665280\,a_2{}^3a_4{}^3a_3a_1-44144100\,a_3{}^2a_1{}^6a_2{}^3a_4-411840\,a_6{}^2a_3a_4a_1{}^3-2522520\,a_2{}^5a_3a_6a_1{}^3-194040\,a_2{}^6a_3a_6a_1-6306300\,a_2{}^4a_4{}^2a_3a_1{}^3-582120\,a_2{}^5a_4{}^2a_3a_1-126720\,a_1a_2{}^7a_4a_3-138600\,a_2a_4{}^4a_1a_3-8828820\,a_1{}^5a_2{}^4a_6a_3-63360\,a_1a_6a_4{}^3a_3-2598960\,a_1{}^{11}a_6a_2a_3-8408400\,a_1{}^9a_6a_2{}^2a_3-16170\,a_2{}^5a_4{}^3-8408400\,a_1{}^9a_2a_4{}^2a_3-18918900\,a_1{}^7a_2{}^2a_4{}^2a_3-17657640\,a_1{}^5a_2{}^3a_4{}^2a_3-1921920\,a_3{}^3a_1{}^3a_4a_6-12812800\,a_2{}^3a_1{}^9a_4a_3-14414400\,a_4a_1{}^7a_2{}^4a_3-12612600\,a_1{}^7a_6a_2{}^3a_3-3153150\,a_1{}^4a_6a_2{}^4a_4-582120\,a_1{}^2a_6a_2{}^5a_4-277200\,a_3{}^2a_6a_2{}^3a_4-997920\,a_6a_4{}^2a_1{}^2a_2{}^3-5940480\,a_4a_1{}^{11}a_2{}^2a_3-1320\,a_2{}^8a_6-6486480\,a_3{}^2a_1{}^2a_2{}^3a_4{}^2-3783780\,a_1{}^2a_3{}^2a_4a_2{}^5-5885880\,a_1{}^6a_6a_2{}^3a_4-720720\,a_3{}^4a_1{}^2a_4{}^2-2310\,a_4{}^5a_2-190080\,a_6{}^2a_1a_4a_2a_3-997920\,a_1a_6a_2{}^4a_4a_3-930240\,a_3{}^2a_1{}^{14}a_2-97920\,a_1{}^{14}a_6a_2-5280\,a_2{}^7a_4{}^2-41580\,a_6a_4{}^2a_2{}^4-23100\,a_6{}^2a_2{}^3a_4-13860\,a_4{}^4a_2{}^3-5940\,a_6{}^3a_1a_3-300300\,a_3a_4{}^4a_1{}^3-485100\,a_2{}^4a_4{}^3a_1{}^2-299880\,a_1{}^{13}a_6a_3-137280\,a_3{}^3a_1a_4{}^3-648648\,a_3a_1{}^5a_2{}^7-810810\,a_1{}^8a_6{}^2a_2-756756\,a_1{}^6a_2{}^6a_4-300300\,a_1{}^4a_6a_4{}^3-420420\,a_6{}^2a_1{}^6a_4-19305\,a_6a_3{}^4a_4-900900\,a_3a_1{}^7a_6{}^2-12972960\,a_1{}^7a_3a_6a_4a_2-2640\,a_6{}^3a_2{}^2-144144\,a_1{}^{10}a_6{}^2-48960\,a_1{}^{14}a_4{}^2-77520\,a_3{}^2a_1{}^{16}-660\,a_1{}^2a_2{}^{10}-1299480\,a_1{}^{11}a_4{}^2a_3-2162160\,a_1{}^7a_4{}^3a_3-495\,a_2{}^9a_4-8168160\,a_3{}^3a_1{}^9a_4-495040\,a_1{}^{12}a_2a_4{}^2-115830\,a_2{}^8a_3a_1{}^3-5940\,a_2{}^9a_3a_1-23823800\,a_3{}^3a_1{}^9a_2{}^2-8316\,a_6{}^2a_2{}^5-1621620\,a_1{}^7a_2{}^6a_3-47520\,a_3{}^2a_6{}^2a_2{}^2-1081080\,a_2{}^4a_1{}^{10}a_4-14414400\,a_3{}^2a_1{}^8a_2{}^4-2162160\,a_3a_1{}^9a_2{}^5-10090080\,a_1{}^6a_2{}^5a_3{}^2-209304\,a_3a_1{}^{15}a_2{}^2-10890880\,a_3{}^2a_1{}^{10}a_2{}^3-4455360\,a_3{}^2a_1{}^{12}a_2{}^2-$$

$$165240\,a_1{}^{14}a_4a_2{}^2 - 556920\,a_4a_1{}^{12}a_2{}^3 - 26163\,a_1{}^{16}a_4a_2 - 30780\,a_1{}^{17}a_3a_2 - 771120\,a_3a_1{}^{13}a_2{}^3)z^{22} +$$
$$(-18118100\,a_3{}^2a_1{}^9a_2{}^4 - 21441420\,a_3{}^4a_1{}^9a_2 - 15048\,a_1{}^{17}a_4a_2 - 16830\,a_2{}^8a_3a_4 - 750750\,a_1{}^9a_6{}^2a_2 -$$
$$2438436\,a_3a_1{}^{10}a_2{}^5 - 4234230\,a_1{}^7a_4{}^3a_2{}^2 - 110772\,a_1{}^{15}a_4a_2{}^2 - 442680\,a_1{}^{13}a_4a_2{}^3 - 154440\,a_3{}^3a_2a_4{}^3 -$$
$$2052050\,a_1{}^9a_6a_2{}^4 - 4104100\,a_1{}^9a_2{}^3a_4{}^2 - 25525500\,a_3{}^3a_1{}^{10}a_2{}^2 - 47747700\,a_3{}^3a_1{}^8a_2{}^3 -$$
$$135660\,a_1{}^{13}a_6a_4 - 104445\,a_1{}^3a_2{}^8a_4 - 4414410\,a_3{}^2a_1{}^5a_4{}^3 - 660660\,a_3{}^3a_2{}^3a_4{}^2 - 1836450\,a_1{}^3a_2{}^4a_4{}^3 -$$
$$\tfrac{279279}{2}\,a_3{}^6a_1a_4 - 58344\,a_1{}^{15}a_6a_2 - 875160\,a_3{}^3a_1{}^2a_4{}^3 - 1279278\,a_1{}^6a_2{}^7a_3 - 3783780\,a_3{}^4a_6a_1{}^5 -$$
$$5135130\,a_1{}^7a_2{}^4a_4{}^2 - 6786780\,a_3{}^2a_1{}^9a_4{}^2 - 900900\,a_3a_1{}^8a_6{}^2 - 45045\,a_6a_3{}^3a_4{}^2 - 620160\,a_3{}^2a_1{}^{15}a_2 -$$
$$18603585\,a_2{}^5a_3{}^3a_1{}^4 - 1207206\,a_4a_1{}^7a_2{}^6 - 76230\,a_2{}^2a_4{}^4a_3 - 2198196\,a_6{}^2a_1{}^5a_2{}^3 - 244200\,a_1{}^3a_6a_2{}^7 -$$
$$238095\,a_3{}^3a_6{}^2a_1{}^2 - 17385\,a_1{}^{18}a_3a_2 - 5207202\,a_3{}^5a_1{}^8 - 223860\,a_1{}^{11}a_4{}^3 - 64350\,a_2{}^7a_3{}^3 -$$
$$29172\,a_1{}^{15}a_4{}^2 - 3876\,a_1{}^{17}a_6 - 43605\,a_3{}^2a_1{}^{17} - 49434\,a_1{}^3a_4{}^5 - 639540\,a_3{}^3a_1{}^{14} - 56628\,a_6{}^3a_1{}^5 -$$
$$855\,a_1{}^{19}a_4 - 627\,a_2{}^{10}a_3 - 81510\,a_2{}^7a_1{}^9 - 105\,a_2a_1{}^{21} - 4324320\,a_3{}^5a_1{}^4a_4 - 324324\,a_3{}^5a_4a_2{}^2 -$$
$$\tfrac{729729}{2}\,a_3{}^5a_6a_1{}^2 - 231231\,a_3{}^5a_2{}^4 - 97188\,a_1{}^{11}a_6{}^2 - 333333\,a_1{}^7a_4{}^4 - 2234232\,a_3{}^6a_1{}^5 -$$
$$3202290\,a_3{}^4a_1{}^{11} - 3207204\,a_1{}^5a_2{}^5a_4{}^2 - 103950\,a_2{}^6a_4{}^2a_3 - 63360\,a_1a_2{}^7a_4{}^2 - 530244\,a_1{}^5a_2{}^7a_4 -$$
$$921690\,a_2{}^2a_4{}^4a_1{}^3 - 1733160\,a_1{}^3a_2{}^7a_3{}^2 - 974610\,a_4{}^2a_1{}^{12}a_3 - 180180\,a_2{}^4a_4{}^3a_3 - \tfrac{1869}{2}\,a_1{}^{20}a_3 -$$
$$44144100\,a_3{}^3a_1{}^6a_2{}^4 - 4774770\,a_3a_6{}^2a_2{}^2a_1{}^4 - 5012280\,a_4a_1{}^{12}a_3a_2{}^2 - 21861840\,a_3{}^3a_1{}^6a_6a_2 -$$
$$277200\,a_6{}^2a_1a_4a_2{}^3 - 3999996\,a_1{}^7a_2a_6a_4{}^2 - 304920\,a_2{}^3a_6a_3a_4{}^2 - 7807800\,a_3{}^3a_1{}^2a_6a_2{}^3 -$$
$$13573560\,a_3{}^2a_1{}^9a_6a_2 - 1649340\,a_6{}^2a_3a_1{}^2a_2{}^3 - 3909906\,a_6{}^2a_3a_1{}^6a_2 - 3686760\,a_1{}^3a_2{}^3a_6a_4{}^2 -$$
$$3909906\,a_1{}^6a_6a_3a_4{}^2 - 34054020\,a_3{}^2a_1{}^5a_6a_2{}^3 - 13153140\,a_3{}^2a_1{}^3a_6a_2{}^4 - 33513480\,a_3{}^2a_1{}^7a_6a_2{}^2 -$$
$$2426424\,a_1{}^{10}a_3a_6a_4 - 1693692\,a_6{}^2a_1{}^5a_4a_2 - 1305612\,a_3{}^2a_1a_6a_2{}^5 - 3564\,a_3a_4{}^5 -$$
$$8288280\,a_1{}^7a_6a_3{}^2a_4 - \tfrac{45045}{2}\,a_3{}^7a_2 - 24594570\,a_3{}^3a_1{}^4a_6a_2{}^2 - 15840\,a_1a_6a_4{}^4 - 160380\,a_6{}^2a_1{}^3a_4{}^2 -$$
$$6029100\,a_3a_6a_1{}^2a_4a_2{}^4 - 3631320\,a_3{}^2a_1a_6a_2{}^3a_4 - 26486460\,a_3{}^2a_1{}^5a_6a_2a_4 - 15135120\,a_3a_1{}^8a_6a_2a_4 -$$
$$1467180\,a_3{}^4a_2a_4{}^2a_1 - 141570\,a_3{}^7a_1{}^2 - 4948020\,a_1{}^2a_6a_3a_4{}^2a_2{}^2 - 9549540\,a_2a_6a_3a_4{}^2a_1{}^4 -$$
$$21261240\,a_3{}^2a_1{}^3a_4a_6a_2{}^2 - 24144120\,a_3a_1{}^4a_6a_2{}^3a_4 - 31026996\,a_1{}^6a_3a_6a_4a_2{}^2 -$$
$$32162130\,a_1{}^6a_2{}^3a_4{}^2a_3 - 7087080\,a_3{}^2a_1{}^3a_4{}^3a_2 - 276705\,a_3{}^4a_6a_1a_4 - 824670\,a_2a_4{}^4a_1{}^2a_3 -$$
$$5945940\,a_3{}^4a_1{}^3a_6a_2 - 16216200\,a_1{}^8a_6a_2{}^3a_3 - 8108100\,a_1{}^{10}a_2a_4{}^2a_3 - 24324300\,a_1{}^8a_2{}^2a_4{}^2a_3 -$$
$$5225220\,a_3{}^3a_1{}^4a_4a_6 - 6594588\,a_1{}^5a_2{}^2a_6a_4{}^2 - 71280\,a_2a_6a_3a_4{}^3 - \tfrac{63063}{2}\,a_3{}^5a_4{}^2 - 368280\,a_1{}^2a_6a_3a_4{}^3 -$$
$$2316600\,a_1{}^3a_6a_3{}^2a_4{}^2 - 2316600\,a_6{}^2a_3{}^2a_1{}^3a_2 - 988680\,a_1{}^3a_2a_6a_4{}^3 - 13533520\,a_1{}^{10}a_3a_2{}^3a_4 -$$
$$85765680\,a_3{}^3a_1{}^6a_4a_2{}^2 - 623700\,a_3{}^2a_6{}^2a_2{}^2a_1 - 95040\,a_6{}^2a_1a_4{}^2a_2 - 1483020\,a_6{}^2a_1{}^3a_4a_2{}^2 -$$
$$27117090\,a_3{}^4a_1{}^3a_4a_2{}^2 - 103455\,a_2{}^8a_3{}^2a_1 - 12072060\,a_2{}^2a_4{}^3a_3a_1{}^4 - 15387372\,a_3a_1{}^6a_2{}^5a_4 -$$
$$19819800\,a_1{}^8a_3a_4a_2{}^4 - 5705700\,a_3a_1{}^4a_4a_2{}^6 - 51081030\,a_3{}^2a_1{}^5a_4{}^2a_2{}^2 - 7297290\,a_2{}^5a_3a_6a_1{}^4 -$$
$$18243225\,a_2{}^4a_4{}^2a_3a_1{}^4 - 948600\,a_1{}^{14}a_3a_2a_4 - 106920\,a_6{}^2a_3a_4a_2{}^2 - 1003860\,a_6{}^2a_3a_4a_1{}^4 -$$
$$44144100\,a_3{}^2a_1{}^9a_4a_2{}^2 - 1999998\,a_6{}^2a_1{}^7a_2{}^2 - 738738\,a_3{}^6a_1a_2{}^2 - 330330\,a_6a_3{}^3a_2{}^4 -$$
$$1949220\,a_1{}^{12}a_6a_2a_3 - 564564\,a_1{}^5a_6a_4{}^3 - 486486\,a_6{}^2a_1{}^7a_4 - 1069068\,a_1{}^5a_2{}^6a_6 - 15840\,a_2{}^8a_1a_6 -$$
$$1351350\,a_3{}^2a_6{}^2a_1{}^5 - 750750\,a_1{}^9a_4{}^2a_6 - 854700\,a_1{}^3a_4{}^2a_2{}^6 - 5465460\,a_3{}^3a_1{}^8a_6 - 5940\,a_6{}^3a_1a_4 -$$
$$3243240\,a_3{}^6a_1{}^3a_2 - 2972970\,a_3{}^4a_1{}^3a_4{}^2 - 16711695\,a_3{}^4a_1{}^3a_2{}^4 - 36795\,a_2{}^9a_3a_1{}^2 - 1651650\,a_1{}^9a_2a_4{}^3 -$$
$$27720\,a_2a_4{}^5a_1 - 10930920\,a_3{}^3a_1{}^6a_4{}^2 - 2522520\,a_1{}^8a_4{}^3a_3 - 2792790\,a_2{}^6a_3{}^3a_1{}^2 - 921690\,a_6{}^2a_1{}^3a_2{}^4 -$$
$$33165\,a_6{}^3a_1{}^2a_3 - 106920\,a_6{}^3a_1{}^3a_2 - 10395\,a_6{}^2a_3a_4{}^2 - 117315\,a_6{}^2a_3{}^2a_4a_1 - 1247400\,a_2a_6a_3{}^2a_4{}^2a_1 -$$
$$1104840\,a_6{}^2a_1{}^2a_4a_2a_3 - 1185030\,a_2{}^6a_3a_6a_1{}^2 - 5250960\,a_3{}^3a_1{}^2a_6a_2a_4 - 103950\,a_3{}^2a_1a_4{}^4 -$$
$$4504500\,a_1{}^5a_2{}^3a_4{}^3 - 49369320\,a_3{}^4a_1{}^7a_2{}^2 - 29700\,a_2{}^7a_3a_6 - \tfrac{99099}{2}\,a_1{}^7a_2{}^8 - 31680\,a_6{}^3a_1a_2{}^2 -$$
$$20180160\,a_3{}^5a_1{}^4a_2{}^2 - 22338\,a_2{}^4a_1{}^{15} - 16936920\,a_1{}^7a_3{}^2a_2{}^5 - 8198190\,a_3{}^2a_1{}^5a_2{}^6 - 5940\,a_1a_2{}^9a_4 -$$
$$2607\,a_2{}^{10}a_1{}^3 - 357000\,a_1{}^{13}a_2a_4{}^2 - 1714440\,a_1{}^{11}a_2{}^2a_4{}^2 - 2054052\,a_1{}^7a_6a_2{}^5 - 1142960\,a_1{}^{11}a_6a_2{}^3 -$$
$$8108100\,a_1{}^{10}a_6a_2{}^2a_3 - 6543810\,a_3{}^3a_1{}^{12}a_2 - 1381590\,a_3{}^2a_1{}^{13}a_4 - 6156\,a_1{}^{17}a_2{}^3 - 2342340\,a_3a_1{}^8a_2{}^6 -$$
$$76230\,a_3a_6{}^2a_2{}^4 - \tfrac{701415}{2}\,a_2{}^8a_3a_1{}^4 - 1471470\,a_2{}^5a_1{}^9a_4 - 1531530\,a_3a_1{}^{12}a_2{}^4 - 10767120\,a_3{}^2a_1{}^{11}a_2{}^3 -$$
$$1042860\,a_4a_1{}^{11}a_2{}^4 - 71706\,a_4a_1{}^{16}a_3 - 590580\,a_3a_1{}^{14}a_2{}^3 - 780120\,a_1{}^2a_2{}^7a_4a_3 - 136629\,a_1{}^{16}a_3a_2{}^2 -$$
$$357000\,a_1{}^{13}a_6a_2{}^2 - 52836\,a_1{}^{13}a_2{}^5 - 795795\,a_3a_4{}^4a_1{}^4 - 194040\,a_2{}^5a_4{}^3a_1 - 3577140\,a_3{}^2a_1{}^{13}a_2{}^2 -$$

$$4019400\,a_2{}^3a_4{}^3a_3a_1{}^2 - 33513480\,a_3{}^2a_1{}^7a_4{}^2a_2 - 12809160\,a_3{}^2a_1{}^{11}a_2a_4 - 45045000\,a_3{}^3a_1{}^8a_2a_4 -$$
$$8468460\,a_1{}^7a_6a_2{}^3a_4 - 3264030\,a_2{}^4a_4{}^2a_3{}^2a_1 - 3555090\,a_2{}^5a_4{}^2a_3a_1{}^2 - 1065\,a_1{}^{19}a_2{}^2 -$$
$$81900\,a_1{}^{11}a_2{}^6 - 16731\,a_1{}^5a_2{}^9 - 45045\,a_3{}^3a_6{}^2a_2 - 468468\,a_2{}^5a_3{}^3a_4 - 6930\,a_3a_6{}^3a_2 - 63063\,a_3{}^5a_2a_6 -$$
$$7759752\,a_3{}^3a_1{}^{10}a_4 - 1531530\,a_3{}^4a_1a_2{}^5 - 179010\,a_1{}^{14}a_6a_3 - 5927922\,a_3{}^5a_1{}^2a_2{}^3 - 19339320\,a_3{}^5a_1{}^6a_2 -$$
$$12372360\,a_3{}^4a_1{}^7a_4 - 1893528\,a_3{}^2a_1{}^{11}a_6 - 1099098\,a_2a_4{}^4a_1{}^5 - 46666620\,a_3{}^4a_1{}^5a_2{}^3 - 120\,a_1a_2{}^{11} -$$
$$99792\,a_6{}^2a_1a_2{}^5 - 166320\,a_2{}^3a_4{}^4a_1 - 463320\,a_6a_3{}^3a_4a_2{}^2 - 277200\,a_1a_6a_4{}^3a_2{}^2 -$$
$$61801740\,a_3{}^3a_2{}^3a_4a_1{}^4 - 14234220\,a_3{}^3a_1{}^2a_4a_2{}^4 - 26306280\,a_3{}^2a_1{}^3a_2{}^3a_4{}^2 - 11711700\,a_3{}^3a_1{}^2a_4{}^2a_2{}^2 -$$
$$1467180\,a_3{}^4a_6a_1a_2{}^2 - 24594570\,a_3{}^3a_2a_4{}^2a_1{}^4 - 1343160\,a_1{}^{11}a_6a_2a_4 - 36576540\,a_3{}^4a_1{}^5a_2a_4 -$$
$$3999996\,a_3{}^5a_1{}^2a_2a_4 - 4264260\,a_3{}^4a_1a_2{}^3a_4 - 216216\,a_2{}^5a_3a_6a_4 - 70270200\,a_1{}^7a_3{}^2a_2{}^3a_4 -$$
$$15675660\,a_1{}^3a_2{}^5a_3{}^2a_4 - 52026975\,a_3{}^2a_1{}^5a_2{}^4a_4 - 4954950\,a_1{}^9a_6a_2{}^2a_4 - 2203740\,a_1{}^3a_2{}^5a_6a_4 -$$
$$1268190\,a_1a_3{}^2a_4a_2{}^6 - 194040\,a_1a_6a_2{}^6a_4 - 10342332\,a_3a_1{}^6a_2a_4{}^3 - 498960\,a_6a_4{}^2a_1a_2{}^4 -$$
$$16081065\,a_3a_1{}^6a_6a_2{}^4 - 6756750\,a_1{}^5a_6a_2{}^4a_4 - 9/2\,a_1{}^{23} - 1815660\,a_2{}^2a_4{}^3a_3{}^2a_1)z^{23} + O(z^{24})$$

The logarithm $\log_C(x)$ equals

$$x + 1/2\,a_1x^2 + 1/3\,(a_2 + a_1{}^2)x^3 + 1/4\,(2\,a_3 + a_1{}^3 + 2\,a_1a_2)x^4 + 1/5\,(a_2{}^2 + 3\,a_1{}^2a_2 + a_1{}^4 + 6\,a_3a_1 +$$
$$2\,a_4)x^5 + 1/6\,(6\,a_1a_4 + 3\,a_1a_2{}^2 + 4\,a_1{}^3a_2 + 12\,a_3a_1{}^2 + 6\,a_2a_3 + a_1{}^5)x^6 + 1/7\,(a_2{}^3 + 3\,a_6 + 6\,a_3{}^2 +$$
$$5\,a_1{}^4a_2 + 20\,a_3a_1{}^3 + 6\,a_1{}^2a_2{}^2 + 12\,a_4a_1{}^2 + 6\,a_2a_4 + 24\,a_3a_1a_2 + a_1{}^6)x^7 + 1/8\,(12\,a_1a_6 + 30\,a_3{}^2a_1 +$$
$$30\,a_1{}^4a_3 + 4\,a_1a_2{}^3 + 20\,a_1{}^3a_4 + 12\,a_4a_3 + 12\,a_3a_2{}^2 + 6\,a_1{}^5a_2 + 10\,a_1{}^3a_2{}^2 + 60\,a_1{}^2a_2a_3 + 24\,a_4a_1a_2 +$$
$$a_1{}^7)x^8 + 1/9\,(a_2{}^4 + 6\,a_4{}^2 + 12\,a_4a_2{}^2 + 15\,a_1{}^4a_2{}^2 + 10\,a_2{}^3a_1{}^2 + 12\,a_2a_6 + 42\,a_3a_1{}^5 + 7\,a_1{}^6a_2 + 90\,a_3{}^2a_1{}^2 +$$
$$30\,a_1{}^4a_4 + 30\,a_3{}^2a_2 + 60\,a_3a_1a_4 + 30\,a_6a_1{}^2 + 120\,a_3a_1{}^3a_2 + 60\,a_2{}^2a_3a_1 + 60\,a_1{}^2a_2a_4 + a_1{}^8)x^9 +$$
$$1/10\,(20\,a_3{}^3 + 210\,a_3{}^2a_1{}^3 + 42\,a_1{}^5a_4 + 8\,a_1{}^7a_2 + 20\,a_1{}^3a_2{}^3 + 60\,a_6a_1{}^3 + 21\,a_1{}^5a_2{}^2 + 56\,a_1{}^6a_3 + 20\,a_2{}^3a_3 +$$
$$20\,a_6a_3 + 30\,a_4{}^2a_1 + 5\,a_1a_2{}^4 + 210\,a_3a_1{}^4a_2 + 120\,a_1{}^3a_4a_2 + 60\,a_4a_3a_2 + 180\,a_1{}^2a_3a_2{}^2 + 60\,a_6a_1a_2 +$$
$$180\,a_3a_1{}^2a_4 + 180\,a_3{}^2a_1a_2 + 60\,a_1a_4a_2{}^2 + a_1{}^9)x^{10} + 1/11\,(15\,a_2{}^4a_1{}^2 + 90\,a_2{}^2a_3{}^2 + 420\,a_1{}^3a_3a_2{}^2 +$$
$$210\,a_1{}^4a_2a_4 + 336\,a_3a_1{}^5a_2 + 180\,a_1{}^2a_4a_2{}^2 + 180\,a_6a_1{}^2a_2 + 35\,a_1{}^4a_2{}^3 + 56\,a_1{}^6a_4 + 630\,a_3{}^2a_1{}^2a_2 +$$
$$420\,a_3a_1{}^3a_4 + 120\,a_3a_1a_6 + 120\,a_2{}^3a_3a_1 + 140\,a_3{}^3a_1 + a_1{}^{10} + a_2{}^5 + 20\,a_2{}^3a_4 + 90\,a_1{}^2a_4{}^2 + 72\,a_3a_1{}^7 +$$
$$30\,a_2a_4{}^2 + 9\,a_1{}^8a_2 + 105\,a_1{}^4a_6 + 420\,a_3{}^2a_1{}^4 + 28\,a_1{}^6a_2{}^2 + 60\,a_3{}^2a_4 + 30\,a_6a_2{}^2 + 360\,a_3a_1a_2a_4 +$$
$$20\,a_6a_4)x^{11} + 1/12\,(6\,a_1a_2{}^5 + 35\,a_2{}^4a_1{}^3 + 56\,a_2{}^3a_1{}^5 + 36\,a_1{}^7a_2{}^2 + 756\,a_3{}^2a_1{}^5 + 72\,a_1{}^7a_4 + 30\,a_2{}^4a_3 +$$
$$140\,a_3{}^3a_2 + 210\,a_1{}^3a_4{}^2 + 420\,a_6a_3a_1{}^2 + 180\,a_1a_6a_2{}^2 + 840\,a_1{}^4a_3a_4 + 630\,a_3{}^2a_1a_2{}^2 + 120\,a_2{}^3a_4a_1 +$$
$$180\,a_2a_4{}^2a_1 + 336\,a_1{}^5a_4a_2 + 420\,a_1{}^3a_4a_2{}^2 + 180\,a_2{}^2a_4a_3 + 840\,a_1{}^4a_3a_2{}^2 + 420\,a_3{}^2a_1a_4 + 120\,a_6a_3a_2 +$$
$$420\,a_1{}^3a_2a_6 + 120\,a_4a_1a_6 + 504\,a_3a_1{}^6a_2 + a_1{}^{11} + 1680\,a_3{}^2a_1{}^3a_2 + 60\,a_4{}^2a_3 + 560\,a_3{}^3a_1{}^2 + 168\,a_1{}^5a_6 +$$
$$1260\,a_3a_1{}^2a_4a_2 + 420\,a_1{}^2a_2{}^3a_3 + 90\,a_3a_1{}^8 + 10\,a_1{}^9a_2)x^{12} + 1/13\,(840\,a_1{}^4a_4a_2{}^2 + 1120\,a_1{}^3a_3a_2{}^3 +$$
$$210\,a_1a_3a_2{}^4 + 504\,a_1{}^6a_2a_4 + 1120\,a_3{}^3a_1a_2 + 420\,a_3{}^2a_2a_4 + 720\,a_3a_1{}^7a_2 + 1680\,a_3{}^2a_4a_1{}^2 +$$
$$1512\,a_3a_1{}^5a_4 + 120\,a_2a_6a_4 + 420\,a_3a_1a_4{}^2 + 1512\,a_1{}^5a_3a_2{}^2 + 3780\,a_1{}^4a_3{}^2a_2 + 20\,a_4{}^3 + 70\,a_3{}^4 + 15\,a_6{}^2 +$$
$$a_1{}^{12} + a_2{}^6 + 45\,a_1{}^8a_2{}^2 + 30\,a_2{}^4a_4 + 70\,a_2{}^4a_1{}^4 + 210\,a_3{}^2a_2{}^3 + 1260\,a_3{}^2a_1{}^6 + 84\,a_1{}^6a_2{}^3 + 3360\,a_3a_1{}^3a_4a_2 +$$
$$1120\,a_3a_1{}^3a_6 + 840\,a_1{}^4a_6a_2 + 630\,a_1{}^2a_6a_2{}^2 + 1260\,a_3a_1a_4a_2{}^2 + 840\,a_6a_3a_1a_2 + 420\,a_6a_1{}^2a_4 +$$
$$420\,a_1{}^2a_2{}^3a_4 + 630\,a_1{}^2a_2a_4{}^2 + 2520\,a_3{}^2a_1{}^2a_2{}^2 + 21\,a_1{}^2a_2{}^5 + 90\,a_2{}^2a_4{}^2 + 1680\,a_3{}^3a_1{}^3 + 420\,a_1{}^4a_4{}^2 +$$
$$252\,a_1{}^6a_6 + 90\,a_1{}^8a_4 + 105\,a_6a_3{}^2 + 60\,a_2{}^3a_6 + 11\,a_1{}^{10}a_2 + 110\,a_3a_1{}^9)x^{13} + 1/14\,(1680\,a_1{}^2a_4{}^2a_3 +$$
$$1512\,a_1{}^5a_4a_2{}^2 + 2520\,a_1{}^4a_2{}^3a_3 + 3360\,a_3a_1{}^2a_2a_6 + 1120\,a_1{}^3a_2{}^3a_4 + 5040\,a_3{}^3a_1{}^2a_2 + 1680\,a_1{}^3a_2a_4{}^2 +$$
$$840\,a_6a_3{}^2a_1 + a_1{}^{13} + 120\,a_2{}^3a_1{}^7 + 42\,a_2{}^5a_3 + 756\,a_1{}^5a_4{}^2 + 560\,a_3{}^3a_2{}^2 + 132\,a_1{}^{10}a_3 + 110\,a_1{}^9a_4 +$$
$$7\,a_2{}^6a_1 + 126\,a_2{}^4a_1{}^5 + 1980\,a_3{}^2a_1{}^7 + 140\,a_1a_4{}^3 + 630\,a_3{}^4a_1 + 4200\,a_3{}^3a_1{}^4 + 105\,a_1a_6{}^2 + 280\,a_3{}^3a_4 +$$
$$1512\,a_1{}^5a_6a_2 + 2520\,a_1{}^4a_3a_6 + 55\,a_1{}^9a_2{}^2 + 3360\,a_3{}^2a_1a_4a_2 + 840\,a_1a_2a_4a_6 + 360\,a_1{}^7a_6 + 56\,a_1{}^3a_2{}^5 +$$
$$420\,a_2{}^2a_6a_3 + 210\,a_3a_6a_4 + 2520\,a_1{}^6a_3a_2{}^2 + 720\,a_1{}^7a_4a_2 + 5040\,a_3{}^2a_1{}^3a_4 + 990\,a_3a_1{}^8a_2 + 1120\,a_1{}^3a_6a_4 +$$
$$1680\,a_1{}^3a_6a_2{}^2 + 7560\,a_1{}^3a_2{}^2a_3{}^2 + 2520\,a_3a_1{}^6a_4 + 210\,a_1a_4a_2{}^4 + 7560\,a_3{}^2a_1{}^5a_2 + 840\,a_1{}^2a_3a_2{}^4 +$$
$$420\,a_1a_6a_2{}^3 + 630\,a_4{}^2a_1a_2{}^2 + 420\,a_3a_2{}^3a_4 + 1680\,a_3{}^2a_1a_2{}^3 + 420\,a_2a_4{}^2a_3 + 7560\,a_3a_1{}^4a_2a_4 +$$
$$5040\,a_3a_1{}^2a_4a_2{}^2 + 12\,a_1{}^{11}a_2)x^{14} + 1/15\,(2520\,a_1{}^2a_2{}^2a_4{}^2 + 3780\,a_3{}^2a_1{}^2a_6 + 10080\,a_1{}^3a_6a_3a_2 +$$
$$5040\,a_3{}^3a_2{}^2a_1 + 990\,a_1{}^8a_2a_4 + 5040\,a_1{}^5a_3a_2{}^3 + 2520\,a_3a_1{}^3a_2{}^4 + a_2{}^7 + a_1{}^{14} + 13\,a_1{}^{12}a_2 + 42\,a_2{}^5a_4 +$$

$$495\,a_1^{8}a_6+2970\,a_1^{8}a_3^{2}+9240\,a_3^{3}a_1^{5}+560\,a_1^{2}a_4^{3}+105\,a_4^{2}a_6+420\,a_6^{2}a_1^{2}+105\,a_2a_6^{2}+66\,a_1^{10}a_2^{2}+165\,a_1^{8}a_2^{3}+210\,a_2^{4}a_1^{6}+156\,a_1^{11}a_3+126\,a_1^{4}a_2^{5}+132\,a_1^{10}a_4+28\,a_2^{6}a_1^{2}+1260\,a_1^{6}a_4^{2}+630\,a_3^{4}a_2+420\,a_2^{4}a_3^{2}+420\,a_3^{2}a_4^{2}+105\,a_2^{4}a_6+3150\,a_3^{4}a_1^{2}+420\,a_2^{2}a_6a_4+3360\,a_1^{2}a_2a_6a_4+3360\,a_3a_1a_2a_4^{2}+3360\,a_3a_1a_2^{3}a_4+15120\,a_3^{2}a_4a_1^{2}a_2+2520\,a_1^{4}a_4a_6+2520\,a_1^{4}a_2^{3}a_4+2520\,a_1^{6}a_4a_2^{2}+7560\,a_3^{2}a_1^{2}a_2^{3}+2520\,a_1^{6}a_2a_6+210\,a_4^{2}a_2^{3}+140\,a_2a_4^{3}+840\,a_1^{2}a_4a_2^{4}+336\,a_1a_2^{5}a_3+3960\,a_1^{7}a_3a_2^{2}+1320\,a_3a_1^{9}a_2+15120\,a_3a_1^{5}a_4a_2+15120\,a_1^{3}a_2^{2}a_4a_3+3360\,a_6a_3a_1a_2^{2}+1680\,a_6a_3a_1a_4+840\,a_6a_3^{2}a_2+12600\,a_1^{4}a_3^{2}a_4+1680\,a_3^{2}a_4a_2^{2}+5040\,a_3a_1^{3}a_4^{2}+2520\,a_3^{3}a_1a_4+1680\,a_1^{2}a_6a_2^{3}+5040\,a_1^{5}a_3a_6+16800\,a_3^{3}a_1^{3}a_2+3780\,a_1^{4}a_6a_2^{2}+3780\,a_1^{4}a_2a_4^{2}+13860\,a_3^{2}a_1^{6}a_2+3960\,a_1^{7}a_3a_4+18900\,a_3^{2}a_1^{4}a_2^{2})x^{15}+1/16\,(25200\,a_3^{3}a_1^{2}a_2^{2}+27720\,a_3^{2}a_1^{5}a_4+7560\,a_1^{3}a_2^{2}a_4^{2}+5040\,a_1^{5}a_4a_6+9240\,a_1^{6}a_6a_3+5040\,a_1^{3}a_6a_2^{3}+15120\,a_3a_1^{2}a_2^{3}a_4+1680\,a_3a_6a_2a_4+37800\,a_3a_1^{4}a_4a_2^{2}+15120\,a_1^{2}a_6a_3a_2^{2}+15120\,a_3^{2}a_4a_1a_2^{2}+50400\,a_3^{2}a_1^{3}a_2a_4+5040\,a_1^{5}a_2^{3}a_4+1716\,a_1^{10}a_3a_2+1512\,a_1^{2}a_2^{5}a_3+12600\,a_3^{3}a_1^{2}a_4+12600\,a_3^{2}a_1^{3}a_6+12600\,a_1^{4}a_4^{2}a_3+7560\,a_1^{5}a_6a_2^{2}+3960\,a_1^{7}a_4a_2^{2}+840\,a_2^{4}a_3a_4+7560\,a_1^{5}a_2a_4^{2}+2520\,a_1^{3}a_4a_2^{4}+a_1^{15}+252\,a_3^{5}+4290\,a_1^{9}a_3^{2}+280\,a_3a_4^{3}+1260\,a_6^{2}a_1^{3}+11550\,a_3^{4}a_1^{3}+18480\,a_3^{3}a_1^{6}+252\,a_2^{5}a_1^{5}+504\,a_6a_3^{3}+182\,a_1^{12}a_3+14\,a_1^{13}a_2+1980\,a_1^{7}a_4^{2}+1680\,a_3^{3}a_2^{3}+1680\,a_1^{3}a_4^{3}+78\,a_1^{11}a_2^{2}+56\,a_2^{6}a_3+660\,a_1^{9}a_6+84\,a_1^{3}a_2^{6}+220\,a_2^{3}a_1^{9}+168\,a_3a_6^{2}+330\,a_1^{7}a_2^{4}+1120\,a_4^{3}a_2a_1+1680\,a_1a_2^{3}a_4^{2}+840\,a_2^{4}a_1a_6+10080\,a_1^{3}a_2a_6a_4+25200\,a_1^{4}a_6a_3a_2+7560\,a_3^{2}a_1a_6a_2+3360\,a_1a_6a_2^{2}a_4+1680\,a_4^{2}a_2^{2}a_3+25200\,a_3^{2}a_1^{3}a_2^{3}+1320\,a_1^{9}a_4a_2+3780\,a_3^{2}a_1a_2^{4}+8\,a_1a_2^{7}+156\,a_1^{11}a_4+27720\,a_3a_1^{6}a_4a_2+840\,a_6a_4^{2}a_1+840\,a_6^{2}a_1a_2+9240\,a_1^{6}a_2^{3}a_3+5940\,a_1^{8}a_3a_2^{2}+41580\,a_3^{2}a_1^{5}a_2^{2}+3960\,a_1^{7}a_6a_2+46200\,a_3^{3}a_1^{4}a_2+336\,a_1a_2^{5}a_4+6300\,a_3^{4}a_1a_2+1120\,a_2^{3}a_6a_3+2520\,a_3^{3}a_4a_2+3780\,a_3^{2}a_4^{2}a_1+23760\,a_3^{2}a_1^{7}a_2+5940\,a_3a_1^{8}a_4+6300\,a_1^{4}a_3a_2^{4}+15120\,a_3a_1^{2}a_2a_4^{2}+7560\,a_3a_6a_4a_1^{2})x^{16}+1/17\,(70\,a_4^{4}+56\,a_2^{6}a_4+5040\,a_1^{2}a_2a_4^{3}+55440\,a_1^{5}a_3a_6a_2+15120\,a_3a_6a_1a_4a_2+15840\,a_3a_1^{7}a_6+15120\,a_3a_1a_2^{2}a_4^{2}+10080\,a_3a_1a_2^{3}a_6+5040\,a_3a_1^{3}a_2^{5}+2184\,a_1^{11}a_3a_2+3780\,a_3^{2}a_2a_4^{2}+27720\,a_3a_1^{5}a_4^{2}+a_2^{8}+a_1^{16}+210\,a_1^{4}a_2^{6}+15\,a_1^{14}a_2+3150\,a_3^{4}a_2^{2}+1260\,a_3^{4}a_4+168\,a_2^{5}a_6+560\,a_4^{3}a_2^{2}+36\,a_2^{7}a_1^{2}+6006\,a_1^{10}a_3^{2}+495\,a_2^{4}a_1^{8}+858\,a_1^{10}a_6+420\,a_2^{4}a_4^{2}+3150\,a_1^{4}a_6^{2}+4200\,a_1^{4}a_4^{3}+2772\,a_3^{5}a_1+182\,a_1^{12}a_4+2970\,a_1^{8}a_4^{2}+420\,a_6^{2}a_2^{2}+462\,a_2^{5}a_1^{6}+69300\,a_3^{2}a_1^{4}a_2^{3}+13860\,a_1^{6}a_2a_4^{2}+18900\,a_1^{4}a_2^{2}a_4^{2}+16800\,a_3^{3}a_1a_2^{3}+5040\,a_3^{2}a_2^{3}a_4+110880\,a_3^{3}a_1^{5}a_2+38610\,a_1^{8}a_3^{2}a_2+83160\,a_1^{6}a_2^{2}a_3^{2}+34320\,a_3^{3}a_1^{7}+7560\,a_3a_1a_4a_2^{4}+47520\,a_1^{7}a_3a_2a_4+286\,a_1^{10}a_2^{3}+168\,a_4a_6^{2}+18900\,a_3^{2}a_1^{2}a_2^{4}+5940\,a_1^{8}a_6a_2+12600\,a_1^{4}a_6a_2^{3}+13860\,a_1^{6}a_6a_2^{2}+1512\,a_1^{2}a_2^{5}a_4+6300\,a_1^{4}a_4a_2^{4}+5040\,a_3^{3}a_1a_6+3780\,a_6a_4^{2}a_1^{2}+3780\,a_3^{2}a_6a_2^{2}+18900\,a_3^{2}a_1^{2}a_4^{2}+25200\,a_1^{4}a_2a_6a_4+34650\,a_3^{2}a_1^{4}a_6+34650\,a_3^{4}a_1^{2}a_2+46200\,a_3^{3}a_1^{3}a_4+9240\,a_1^{6}a_6a_4+3780\,a_6^{2}a_1^{2}a_2+1120\,a_6a_2^{3}a_4+2520\,a_3a_1a_4^{3}+3780\,a_1^{2}a_2^{4}a_6+8580\,a_1^{9}a_3a_2^{2}+1716\,a_1^{10}a_2a_4+7560\,a_1^{2}a_2^{3}a_4^{2}+55440\,a_3^{2}a_1^{6}a_4+8580\,a_3a_1^{9}a_4+504\,a_2^{6}a_3a_1+50400\,a_3a_1^{3}a_6a_2^{2}+756\,a_2^{5}a_3^{2}+34650\,a_3^{4}a_1^{4}+15120\,a_1^{2}a_6a_4a_2^{2}+25200\,a_3^{3}a_1a_4a_2+25200\,a_3a_1^{3}a_4a_6+138600\,a_3^{2}a_1^{4}a_4a_2+75600\,a_3^{2}a_1^{2}a_2^{2}a_4+50400\,a_3a_1^{3}a_2a_4^{2}+210\,a_1^{13}a_3+83160\,a_3a_1^{5}a_4a_2^{2}+91\,a_1^{12}a_2^{2}+50400\,a_3a_1^{3}a_2^{3}a_4+37800\,a_1^{2}a_3^{2}a_6a_2+1512\,a_6^{2}a_3a_1+840\,a_6a_4^{2}a_2+1512\,a_6a_3^{2}a_4+9240\,a_1^{6}a_2^{3}a_4+13860\,a_1^{5}a_3a_2^{4}+15840\,a_1^{7}a_3a_2^{3}+5940\,a_1^{8}a_4a_2^{2}+92400\,a_3^{3}a_1^{3}a_2^{2})x^{17}+1/18\,(37800\,a_3^{2}a_1a_6a_2^{2}+75600\,a_3a_1^{2}a_2^{2}a_4^{2}+50400\,a_3^{2}a_1a_2^{3}a_4+138600\,a_3^{3}a_1^{2}a_2a_4+12600\,a_3^{3}a_4a_2^{2}+92400\,a_3^{3}a_1^{2}a_2^{3}+27720\,a_3^{3}a_1^{2}a_6+23760\,a_1^{7}a_2a_4^{2}+504\,a_2^{6}a_1a_4+34650\,a_3^{4}a_1a_2^{2}+2184\,a_1^{11}a_4a_2+a_1^{17}+715\,a_2^{4}a_1^{9}+630\,a_4^{4}a_1+4290\,a_1^{9}a_4^{2}+60060\,a_3^{3}a_1^{8}+9240\,a_1^{5}a_4^{3}+120\,a_2^{7}a_1^{3}+462\,a_1^{5}a_2^{6}+240\,a_1^{14}a_3+210\,a_1^{13}a_4+2520\,a_3^{3}a_4^{2}+6930\,a_1^{5}a_6^{2}+4200\,a_3^{3}a_2^{4}+2772\,a_3^{5}a_2+1092\,a_1^{11}a_6+72\,a_2^{7}a_3+9\,a_1a_2^{8}+90090\,a_3^{4}a_1^{5}+8190\,a_1^{11}a_3^{2}+364\,a_2^{3}a_1^{11}+105\,a_1^{13}a_2^{2}+792\,a_1^{7}a_2^{5}+1512\,a_6^{2}a_2a_3+1512\,a_6^{2}a_1a_4+1512\,a_3a_6a_4^{2}+2520\,a_1^{2}a_3a_2^{6}+83160\,a_3^{2}a_1^{5}a_6+138600\,a_3^{4}a_1^{3}a_2+75600\,a_3a_1^{2}a_2a_6a_4+15840\,a_1^{7}a_6a_4+25740\,a_3a_1^{8}a_6+277200\,a_3^{3}a_1^{4}a_2^{2}+102960\,a_3^{2}a_1^{7}a_4+27720\,a_1^{5}a_6a_2^{3}+15840\,a_1^{7}a_2^{3}a_4+27720\,a_1^{6}a_3a_2^{4}+5040\,a_3^{3}a_2a_6+7560\,a_3a_6^{2}a_1^{2}+13860\,a_3^{4}a_1a_4+69300\,a_3^{2}a_1^{3}a_4^{2}+23760\,a_1^{7}a_6a_2^{2}+41580\,a_1^{5}a_2^{2}a_4^{2}+25200\,a_1^{3}a_2^{3}a_4^{2}+77220\,a_3a_1^{8}a_4a_2+12600\,a_1^{3}a_2^{4}a_6+69300\,a_3^{2}a_1^{3}a_2^{4}+3780\,a_1a_4^{2}a_2^{4}+1512\,a_2^{5}a_3a_4+7560\,a_3^{2}a_1a_2^{5}+16632\,a_3^{5}a_1^{2}+8580\,a_4a_1^{9}a_2^{2}+25740\,a_1^{8}a_2^{3}a_3+13860\,a_1^{4}a_2^{5}a_3+13860\,a_1^{5}a_4a_2^{4}+332640\,a_3^{2}a_1^{5}a_4a_2+138600\,a_1^{4}a_2a_4^{2}a_3+110880\,a_3a_1^{6}a_2a_6+37800\,a_4a_3a_1^{2}a_2^{4}+138600\,a_3a_1^{4}a_2^{3}a_4+37800\,a_3^{2}a_1a_2a_4^{2}+69300\,a_3a_1^{4}a_4a_6+138600\,a_3^{2}a_1^{3}a_6a_2+7560\,a_6a_4^{2}a_1a_2+7560\,a_3a_6a_4a_2^{2}+55440\,a_1^{5}a_6a_2a_4+50400\,a_1^{2}a_3a_6a_2^{3}+138600\,a_1^{4}a_6a_3a_2^{2}+50400\,a_1^{3}a_6a_4a_2^{2}+10080\,a_4a_1a_6a_2^{3}+3780\,a_1a_6^{2}a_2^{2}+12600\,a_1^{3}a_6a_4^{2}+12600\,a_6^{2}a_1^{3}a_2+2520\,a_3a_2^{4}a_6+2520\,a_4^{3}a_2a_3+16800\,a_1^{3}a_2a_4^{3}+12600\,a_3a_1^{2}a_4^{3}+5040\,a_1a_2^{2}a_4^{3}+5040\,a_2^{3}a_3a_4^{2}+1512\,a_1a_6a_2^{5}+16\,a_1^{15}a_2+277200\,a_3^{2}a_1^{3}a_4a_2^{2}+15120\,a_3^{2}a_1a_6a_4+2730\,a_1^{12}a_2a_3+12012\,a_1^{10}a_3a_2^{2}+166320\,a_3^{2}a_1^{5}a_2^{3}+8580\,a_1^{9}a_2a_6+60060\,a_1^{9}a_3^{2}a_2+12012\,a_1^{10}a_3a_4+166320\,a_1^{6}a_2^{2}a_4a_3+154440\,a_1^{7}a_3^{2}a_2^{2}+5040\,a_1^{3}a_2^{5}a_4+240240\,a_3^{3}a_1^{6}a_2+138600\,a_3^{3}a_1^{4}a_4+55440\,a_3a_1^{6}a_4^{2})x^{18}+1/19\,(27720\,a_1^{3}a_3a_6^{2}+120\,a_1^{14}a_2^{2}+277200\,a_3a_1^{3}a_2^{2}a_4^{2}+69300\,a_1^{4}a_2^{3}a_4^{2}+27720\,a_3^{3}a_4^{2}a_1+34650\,a_6^{2}a_1^{4}a_2+450450\,a_3^{4}a_1^{4}a_2+33264\,a_1^{5}a_3a_2^{5}+480480\,a_3^{3}a_1^{7}a_2+38610\,a_1^{8}a_6a_2^{2}+16380\,a_3a_1^{11}a_2^{2}+18900\,a_4^{2}a_1^{2}a_2^{4}+7560\,a_6^{2}a_4a_1^{2}+3360\,a_1^{13}a_3a_2+720\,a_1a_2^{7}a_3+207900\,a_3^{2}a_1^{4}a_2^{4}+16380\,a_1^{11}a_3a_4+34650\,a_1^{4}a_4^{2}a_6+41580\,a_3^{2}a_1^{2}a_2^{5}+13860\,a_3^{4}a_4a_2+a_2^{9}+924\,a_3^{6}+1680\,a_2^{3}a_4^{3}+18480\,a_1^{6}a_4^{3}+72072\,a_3^{5}a_1^{3}+11550\,a_3^{4}a_2^{3}+72\,a_2^{7}a_4+1001\,a_2^{4}a_1^{10}+1365\,a_1^{12}a_6+1260\,a_6^{2}a_3^{2}+240\,a_1^{14}a_4+84\,a_6^{3}+a_1^{18}+1260\,a_2^{6}a_3^{2}+210210\,a_3^{4}a_1^{6}+756\,a_2^{5}a_4^{2}+252\,a_2^{6}a_6+3150\,a_1^{2}a_4^{4}+13860\,a_6^{2}a_1^{6}+2520\,a_3^{2}a_4^{3}+1287\,a_2^{5}a_1^{8}+2310\,a_6a_3^{4}+6006\,a_1^{10}a_4^{2}+924\,a_2^{6}a_1^{6}+272\,a_1^{15}a_3+10920\,a_3^{2}a_1^{12}+180180\,a_1^{8}a_3^{2}a_4+2730\,a_1^{12}a_2a_4+504\,a_6a_4^{3}+207900\,a_3^{4}a_1^{2}a_2^{2}+25740\,a_1^{8}a_4a_6+1512\,a_6^{2}a_2a_4+360360\,a_1^{6}a_3^{2}a_2^{3}+1260\,a_6^{2}a_2^{3}+25200\,a_3a_1a_2^{4}a_6+50400\,a_3a_1a_2^{3}a_4^{2}+50400\,a_1^{2}a_2^{3}a_6a_4+184800\,a_3a_1^{3}a_6a_2^{3}+45\,a_2^{8}a_1^{2}+18900\,a_3^{2}a_2^{2}a_4^{2}+360360\,a_3^{3}a_1^{5}a_4+207900\,a_3^{2}a_1^{4}a_4^{2}+55440\,a_1^{6}a_6a_2^{3}+51480\,a_1^{7}a_3a_2^{4}+25740\,a_1^{8}a_2^{3}a_4+332640\,a_3a_1^{5}a_2a_4^{2}+100100\,a_3^{3}a_1^{9}+40040\,a_1^{9}a_3a_6+46200\,a_1^{4}a_2a_4^{3}+102960\,a_3a_1^{7}a_4^{2}+46200\,a_1a_3^{3}a_2^{4}+369600\,a_3^{3}a_1^{3}a_2^{3}+2520\,a_1^{2}a_2^{6}a_4+12012\,a_1^{10}a_6a_2+270270\,a_1^{8}a_3^{2}a_2^{2}+83160\,a_1^{6}a_2^{2}a_4^{2}+38610\,a_1^{8}a_2a_4^{2}+40040\,a_3a_1^{9}a_2^{3}+12012\,a_1^{10}a_4a_2^{2}+332640\,a_3a_1^{5}a_6a_2^{2}+205920\,a_3a_1^{7}a_6a_2+554400\,a_3^{3}a_1^{3}a_4a_2+138600\,a_3a_1^{3}a_4a_2^{4}+166320\,a_1^{5}a_3a_6a_4+55440\,a_3^{3}a_1a_6a_2+37800\,a_1^{2}a_2a_6a_4^{2}+207900\,a_3^{2}a_1^{2}a_2a_4^{2}+138600\,a_3^{3}a_1a_2^{2}a_4+25200\,a_3a_1a_2a_4^{3}+415800\,a_3^{2}a_1^{4}a_6a_2+120120\,a_3a_1^{9}a_4a_2+332640\,a_3a_1^{5}a_2^{3}a_4+308880\,a_1^{7}a_3a_4a_2^{2}+277200\,a_3a_1^{3}a_2a_6a_4+27720\,a_4a_1^{6}a_2^{4}+9240\,a_1^{3}a_3a_2^{6}+455\,a_2^{3}a_1^{12}+110880\,a_1^{6}a_2a_6a_4+17\,a_1^{16}a_2+831600\,a_3^{2}a_1^{4}a_4a_2^{2}+15120\,a_3a_1a_2^{5}a_4+110880\,a_3^{3}a_1^{3}a_6+83160\,a_3^{4}a_1^{2}a_4+33264\,a_3^{5}a_1a_2+3780\,a_6a_4^{2}a_2^{2}+720720\,a_3^{2}a_1^{6}a_4a_2+46200\,a_3a_1^{3}a_4^{3}+180180\,a_3^{2}a_1^{6}a_6+18900\,a_1^{2}a_6^{2}a_2^{2}+330\,a_2^{7}a_1^{4}+12600\,a_3^{2}a_4a_2^{4}+12600\,a_3^{2}a_6a_2^{3}+2520\,a_4a_2^{4}a_6+25200\,a_1^{2}a_2^{2}a_4^{3}+630\,a_4^{4}a_2+7560\,a_1^{2}a_6a_2^{5}+34650\,a_1^{4}a_2^{4}a_6+90090\,a_1^{10}a_3^{2}a_2+720720\,a_3^{3}a_1^{5}a_2^{2}+75600\,a_6a_4a_3a_2^{2}a_1+13860\,a_1^{4}a_2^{5}a_4+277200\,a_3^{2}a_1^{2}a_2^{3}a_4+15120\,a_3a_1a_6^{2}a_2+15120\,a_1a_6a_3a_4^{2}+83160\,a_3^{2}a_1^{2}a_4a_6+207900\,a_3^{2}a_1^{2}a_6a_2^{2}+138600\,a_1^{4}a_6a_4a_2^{2}+15120\,a_2a_6a_3^{2}a_4)x^{19}+1/20\,(21840\,a_4a_1^{12}a_3+60060\,a_1^{10}a_6a_3+12600\,a_2^{2}a_4^{3}a_3+27720\,a_6a_3^{3}a_2^{2}+450450\,a_1^{9}a_2^{2}a_3^{2}+166320\,a_3^{3}a_1^{2}a_4^{2}+9240\,a_1^{3}a_2^{6}a_4+69300\,a_6^{2}a_1^{3}a_2^{2}+300300\,a_3^{2}a_1^{9}a_4+138600\,a_3a_1^{4}a_4^{3}+83160\,a_1^{5}a_2^{4}a_6+720\,a_1a_2^{7}a_4+16800\,a_2^{3}a_4^{3}a_1+720720\,a_1^{7}a_3^{2}a_2^{3}+27720\,a_6^{2}a_1^{3}a_4+27720\,a_1^{3}a_6a_2^{5}+900900\,a_3^{3}a_1^{8}a_2+540540\,a_3^{2}a_1^{5}a_2^{4}+a_1^{19}+272\,a_1^{15}a_4+5544\,a_3^{5}a_4+11550\,a_1^{3}a_4^{4}+450450\,a_3^{4}a_1^{7}+840\,a_6^{3}a_1+8190\,a_1^{11}a_4^{2}+792\,a_2^{7}a_1^{5}+2002\,a_2^{5}a_1^{9}+1680\,a_1^{13}a_6+18\,a_2a_1^{17}+16632\,a_3^{5}a_2^{2}+1260\,a_3a_4^{4}+25740\,a_1^{7}a_6^{2}+9240\,a_2^{5}a_3^{3}+252252\,a_3^{5}a_1^{4}+160160\,a_3^{3}a_1^{10}+34320\,a_1^{7}a_4^{3}+165\,a_1^{3}a_2^{8}+306\,a_1^{16}a_3+14280\,a_3^{2}a_1^{13}+1365\,a_1^{11}a_2^{4}+60060\,a_1^{9}a_2a_4^{2}+360360\,a_1^{6}a_3a_6a_4+15120\,a_6^{2}a_1a_4a_2+166320\,a_1^{5}a_2^{3}a_4^{2}+1261260\,a_3^{4}a_1^{5}a_2+138600\,a_3^{4}a_1a_2^{3}+831600\,a_3^{2}a_1^{3}a_2a_4^{2}+900900\,a_3^{4}a_1^{3}a_2^{2}+92400\,a_1^{3}a_2^{2}a_4^{3}+27720\,a_3^{2}a_1a_4^{3}+25200\,a_1a_6a_2^{4}a_4+138600\,a_3a_1^{2}a_2a_4^{3}+166320\,a_3^{4}a_1a_2a_4+207900\,a_3^{2}a_1a_2^{2}a_4^{2}+415800\,a_3a_6a_1^{2}a_4a_2^{2}+12600\,a_6^{2}a_1a_2^{3}+6300\,a_2a_4^{4}a_1+12600\,a_2^{4}a_4^{2}a_3+360360\,a_3^{2}a_1^{7}a_6+540540\,a_1^{8}a_3a_4a_2^{2}+415800\,a_3a_1^{4}a_4a_2^{4}+12012\,a_3^{6}a_1+216216\,a_3^{5}a_1^{2}a_2+360360\,a_3^{4}a_1^{3}a_4+$$

$$840840\,a_3^3a_1^6a_4+1201200\,a_3^3a_1^4a_2^3+1801800\,a_3^3a_1^4a_4a_2+1681680\,a_3^3a_1^6a_2^2+180180\,a_1^8a_4^2a_3+277200\,a_3^3a_1^2a_2^4+2520\,a_2^6a_1a_6+13860\,a_3^2a_1a_2^6+2520\,a_2^6a_3a_4+13860\,a_3^2a_6^2a_1+27720\,a_3^4a_6a_1+27720\,a_3^3a_2a_4^2+360360\,a_3^3a_1^4a_6+83160\,a_1^5a_6^2a_2+205920\,a_1^7a_2a_6a_4+831600\,a_3a_1^4a_2^2a_4^2+277200\,a_3a_1^2a_2^3a_4^2+2162160\,a_3^2a_1^5a_4a_2^2+554400\,a_1^4a_2^3a_6a_3+1108800\,a_3^2a_1^3a_2^3a_4+1441440\,a_3^2a_1^7a_2a_4+720720\,a_3a_1^6a_6a_2^2+360360\,a_3a_1^8a_6a_2+720720\,a_3a_1^6a_2a_4^2+332640\,a_1^5a_6a_2^2a_4+138600\,a_1a_3^2a_4a_2^4+83160\,a_3a_1^2a_2^5a_4+138600\,a_3a_1^2a_2^4a_6+25200\,a_3a_6a_2^3a_4+37800\,a_6a_4^2a_1a_2^2+184800\,a_1^3a_2^3a_6a_4+560\,a_1^{13}a_2^3+138600\,a_3^2a_1a_6a_2^3+3360\,a_1^{13}a_4a_2+16380\,a_4a_1^{11}a_2^2+131040\,a_3^2a_1^{11}a_2+60060\,a_3a_1^{10}a_2^3+51480\,a_4a_1^7a_2^4+72072\,a_1^6a_2^5a_3+7560\,a_3a_6^2a_2^2+4080\,a_1^{14}a_3a_2+40040\,a_2^3a_1^9a_4+90090\,a_3a_1^8a_2^4+138600\,a_1^3a_2a_6a_4^2+15120\,a_2a_6a_3a_4^2+332640\,a_3^2a_1^3a_4a_6+332640\,a_3^3a_1^2a_6a_2+831600\,a_3a_1^4a_6a_2a_4+1716\,a_2^6a_1^7+166320\,a_3^2a_1a_6a_2a_4+90\,a_2^8a_3+180180\,a_1^{10}a_3a_2a_4+16380\,a_1^{11}a_6a_2+720720\,a_3a_1^6a_2^3a_4+2520\,a_6^2a_3a_4+166320\,a_1^3a_2^5a_3^2+102960\,a_1^7a_6a_2^3+21840\,a_3a_1^{12}a_2^2+27720\,a_3a_1^4a_2^6+540540\,a_3^2a_1^5a_4^2+136\,a_1^{15}a_2^2+40040\,a_1^9a_4a_6+110880\,a_1^5a_2a_4^3+7560\,a_2^5a_1a_4^2+83160\,a_3a_1^4a_6^2+83160\,a_1^5a_4^2a_6+5040\,a_1a_6a_4^3+9240\,a_6a_3^3a_4+46200\,a_3^3a_2^3a_4+33264\,a_1^5a_2^5a_4+3960\,a_1^2a_2^7a_3+831600\,a_3^3a_1^2a_4a_2^2+5040\,a_2^5a_3a_6+69300\,a_1^3a_4^2a_2^4+1081080\,a_3^2a_1^5a_6a_2+83160\,a_1^2a_6a_3a_4^2+83160\,a_6^2a_3a_1^2a_2+154440\,a_1^7a_2^2a_4^2+60060\,a_1^9a_6a_2^2+10\,a_1a_2^9+831600\,a_3^2a_1^3a_6a_2^2)x^{20}+1/21\,(12600\,a_6a_4^2a_2^3+540540\,a_3^2a_1^4a_2^5+3603600\,a_3^3a_1^7a_2^2+180180\,a_1^6a_6^2a_2+207900\,a_6^2a_1^4a_2^2+1801800\,a_3^3a_1^7a_4+480480\,a_1^{10}a_3^2a_4+1009008\,a_3^5a_1^3a_2+15840\,a_1^3a_2^7a_3+90090\,a_1^8a_4a_2^4+83160\,a_1^4a_6a_2^5+5040\,a_6a_2a_4^3+72072\,a_3^5a_1a_4+90090\,a_1^{10}a_6a_2^2+28560\,a_1^{13}a_3a_2^2+180180\,a_1^8a_6a_2^3+1351350\,a_1^8a_3^2a_2^3+3363360\,a_3^3a_1^5a_2^3+69300\,a_3^2a_2^3a_4^2+72072\,a_1^6a_2^5a_4+83160\,a_1^2a_3^2a_2^6+60060\,a_4a_1^{10}a_2^3+1261260\,a_3^4a_1^4a_4+1261260\,a_1^6a_3^2a_2^4+a_1^{20}+45045\,a_1^8a_6^2+1980\,a_2^7a_3^2+13860\,a_3^4a_4^2+60060\,a_1^8a_4^3+360\,a_2^7a_6+1716\,a_1^6a_2^7+3003\,a_1^8a_2^6+495\,a_2^8a_1^4+2040\,a_1^{14}a_6+153\,a_1^{16}a_2^2+a_2^{10}+252\,a_4^5+3150\,a_2^2a_4^4+4200\,a_2^4a_4^3+1260\,a_2^6a_4^2+34650\,a_2^4a_3^4+756756\,a_3^5a_1^5+84084\,a_3^6a_1^2+840\,a_2a_6^3+10920\,a_4^2a_1^{12}+306\,a_1^{16}a_4+342\,a_1^{17}a_3+247520\,a_3^3a_1^{11}+72072\,a_3a_1^5a_2^6+1260\,a_6^2a_4^2+87360\,a_1^{11}a_3a_6+90090\,a_1^{10}a_2a_4^2+332640\,a_3^3a_2a_4^2a_1+27720\,a_1^4a_2^6a_4+900900\,a_3^4a_1^8+720720\,a_1^7a_6a_3a_4+554400\,a_3a_1^3a_2^4a_6+138600\,a_1a_3a_4^2a_2^4+27720\,a_3a_1a_2^6a_4+166320\,a_6a_4^2a_3a_1a_2+90\,a_2^8a_4+69300\,a_1^2a_6^2a_2^3+5040\,a_2^5a_6a_4+13860\,a_6a_4^2a_3^2+13860\,a_3a_1a_4^4+1081080\,a_3^2a_1^4a_6a_4+277200\,a_1^4a_2^2a_4^3+240240\,a_1^6a_2a_4^3+60060\,a_1^{10}a_6a_4+3153150\,a_3^4a_1^6a_2+34650\,a_1^4a_4^4+3603600\,a_3^2a_1^4a_2^3a_4+831600\,a_3^2a_4a_1^2a_2^4+360360\,a_1^8a_2a_6a_4+1441440\,a_3a_1^7a_4^2a_2+3150\,a_6^2a_2^4+2522520\,a_3^2a_1^6a_6a_2+554400\,a_3^3a_1a_2^3a_4+3603600\,a_3^3a_1^3a_4a_2^2+5045040\,a_3^3a_1^5a_4a_2+180180\,a_3^4a_1^2a_6+27720\,a_3^4a_6a_2+13860\,a_3^2a_6^2a_2+7560\,a_6^2a_4a_2^2+166320\,a_3^2a_1^2a_4^3+1009008\,a_3^3a_1^5a_6+216216\,a_1^5a_3a_6^2+180180\,a_1^6a_6a_4^2+83160\,a_3^2a_6^2a_1^2+83160\,a_1^4a_4a_6^2+332640\,a_3a_1^3a_6a_4^2+34650\,a_1^2a_2a_4^4+332640\,a_3^3a_1a_6a_2^2+27720\,a_6a_1^2a_4^3+34650\,a_3^2a_6a_2^4+83160\,a_3^4a_2^2a_4+27720\,a_3^2a_2a_4^3+27720\,a_6^2a_3a_1a_4+332640\,a_6^2a_3a_1^3a_2+415800\,a_1^4a_2a_6a_4^2+83160\,a_6^2a_1^2a_2a_4+1441440\,a_3a_1^7a_2^3a_4+332640\,a_1^3a_2^5a_3a_4+4620\,a_6^3a_1^2+997920\,a_3^2a_1^2a_2a_6a_4+12012\,a_3^6a_2+1663200\,a_3a_1^3a_6a_4a_2^2+2162160\,a_1^5a_3a_6a_2a_4+1261260\,a_3^2a_1^6a_4^2+13860\,a_1^2a_2^6a_6+92400\,a_1^2a_2^3a_4^3+27720\,a_2^5a_3^2a_4+110880\,a_3^3a_1a_2^5+41580\,a_1^2a_2^5a_4^2+1201200\,a_3^3a_1^3a_2^4+675675\,a_3^2a_1^8a_6+900900\,a_3^4a_1^2a_2^3+3003\,a_2^5a_1^{10}+1820\,a_2^4a_1^{12}+19\,a_2a_1^{18}+680\,a_2^3a_1^{14}+262080\,a_4a_1^{11}a_3a_2+4896\,a_1^{15}a_3a_2+150150\,a_3a_2^4a_1^9+18360\,a_3^2a_1^{14}+21840\,a_4a_1^{12}a_2^2+87360\,a_3a_1^{11}a_2^3+185640\,a_3^2a_1^{12}a_2+28560\,a_3a_1^{13}a_4+21840\,a_1^{12}a_2a_6+1601600\,a_3^3a_1^9a_2+83160\,a_3a_6^2a_2^2a_1+55\,a_2^9a_1^2+300300\,a_3a_1^9a_4^2+270270\,a_1^8a_2^2a_4^2+360360\,a_1^6a_2^3a_4^2+207900\,a_6a_4^2a_1^2a_2^2+180180\,a_1^6a_2^4a_6+144144\,a_3a_1^7a_2^5+3960\,a_1^2a_2^7a_4+110880\,a_3^3a_6a_1a_4+990\,a_1a_2^8a_3+138600\,a_3a_1a_2^2a_4^3+83160\,a_3^2a_6a_2^2a_4+2702700\,a_3^2a_6a_1^4a_2^2+831600\,a_3^2a_6a_1^2a_2^3+55440\,a_6a_3a_1a_2^5+$$

$$138600\,a_1^2a_6a_2^4a_4+2702700\,a_3^2a_1^4a_2a_4^2+1247400\,a_3^2a_1^2a_2^2a_4^2+2702700\,a_1^8a_3^2a_4a_2+1081080\,a_3a_1^5a_4a_2^4+277200\,a_6a_4a_3a_1a_2^3+720720\,a_3^3a_1^3a_4^2+216216\,a_3^5a_1a_2^2+360360\,a_3a_1^5a_4^3+3153150\,a_3^4a_1^4a_2^2+554400\,a_3a_1^3a_2a_4^3+1081080\,a_3^4a_1^2a_4a_2+1441440\,a_3a_1^7a_6a_2^2+1441440\,a_3a_1^5a_6a_2^3+600600\,a_1^9a_3a_6a_2+554400\,a_1^4a_6a_2^3a_4+2162160\,a_3a_1^5a_2^2a_4^2+5045040\,a_3^2a_1^6a_4a_2^2+1108800\,a_3a_1^3a_2^3a_4^2+720720\,a_1^6a_6a_4a_2^2+207900\,a_1^4a_4^2a_2^4+1441440\,a_3^3a_1^3a_6a_2+4080\,a_1^{14}a_2a_4+720720\,a_3^2a_1^{10}a_2^2+900900\,a_4a_1^9a_2^2a_3)x^{21}+1/22\,(138600\,a_2^4a_3^3a_4+13860\,a_1a_4^2a_2^6+504504\,a_3^5a_1^2a_4+720720\,a_1^5a_2^2a_4^3+450450\,a_3^4a_1a_2^4+15840\,a_1^3a_2^7a_4+110880\,a_6a_3^3a_2^3+34650\,a_2^4a_1a_6^2+13860\,a_1a_6^2a_4^2+138600\,a_1^3a_2a_4^4+87360\,a_1^{11}a_6a_4+72072\,a_1^5a_2^6a_4+46200\,a_2^3a_3a_4^3+51480\,a_1^4a_2^7a_3+27720\,a_2^5a_3a_4^2+3603600\,a_3^3a_1^8a_4+720720\,a_3^3a_1^2a_2^5+168168\,a_1^6a_3a_2^6+1513512\,a_3^5a_1^2a_2^2+4896\,a_1^{15}a_4a_2+13860\,a_2a_3a_4^4+2402400\,a_3^2a_1^9a_2^3+36720\,a_1^{14}a_3a_2^2+8408400\,a_3^3a_1^6a_2^3+1201200\,a_3^2a_1^9a_6+216216\,a_1^5a_4a_6^2+2702700\,a_3^2a_1^7a_4^2+2522520\,a_6a_3^3a_1^6+3783780\,a_3^5a_1^4a_2+7920\,a_6^2a_3^3+371280\,a_3^3a_1^{12}+23256\,a_3^2a_1^{15}+2448\,a_1^{15}a_6+2380\,a_1^{13}a_2^4+220\,a_2^9a_1^3+3432\,a_1^7a_2^7+3432\,a_3^7+5005\,a_2^6a_1^9+20\,a_1^{19}a_2+4368\,a_1^{11}a_2^5+1320\,a_6^3a_3+9240\,a_6a_4^3a_3+1081080\,a_1^5a_6a_2a_4^2+166320\,a_6^2a_3^2a_1a_2+166320\,a_6^2a_3a_1^2a_4+5405400\,a_3a_6a_1^4a_2^2a_4+997920\,a_3a_6a_1^2a_4^2a_2+83160\,a_6^2a_1a_4a_2^2+2702700\,a_3a_1^8a_2a_4^2+166320\,a_1^2a_3a_2^6a_4+10810800\,a_3^2a_1^7a_4a_2^2+110\,a_2^9a_3+5940\,a_1^2a_2^8a_3+1287\,a_1^5a_2^8+4324320\,a_3^2a_1^3a_6a_2a_4+1663200\,a_3a_1^2a_2^3a_6a_4+83160\,a_3a_6a_2^2a_4^2+55440\,a_6a_4^3a_2a_1+332640\,a_3^2a_1a_2a_4^3+831600\,a_1^3a_6a_4^2a_2^2+55440\,a_2^5a_1a_6a_4+3027024\,a_3^2a_1^5a_6a_4+90090\,a_1^5a_4^4+5045040\,a_3^3a_1^4a_6a_2+332640\,a_6^2a_1^3a_2a_4+1081080\,a_1^4a_3a_6^2a_2+1081080\,a_3a_1^4a_4^2a_6+144144\,a_1^7a_2^5a_4+18480\,a_3^3a_2^6+2018016\,a_3^5a_1^6+332640\,a_1^2a_6a_3a_2^5+332640\,a_3^2a_1a_2^5a_4+138600\,a_6a_4^2a_1a_2^3+415800\,a_3^2a_1a_2^4a_6+720720\,a_3^3a_1^2a_4a_6+2162160\,a_3^3a_1^2a_6a_2^2+27720\,a_2a_3a_6^2a_4+166320\,a_3^2a_6a_4^2a_1+360360\,a_3^4a_6a_1a_2+997920\,a_3^2a_1a_2^2a_6a_4+69300\,a_6a_4a_3a_2^4+3603600\,a_3^2a_1^3a_2^3a_6+371280\,a_3a_1^{12}a_4a_2+1513512\,a_3^2a_1^5a_2^5+216216\,a_1^5a_6a_2^5+360360\,a_1^7a_2^4a_6+720720\,a_1^7a_2^3a_4^2+360360\,a_1^3a_3^2a_2^6+166320\,a_1^3a_2^5a_4^2+100100\,a_1^9a_4^3+540540\,a_1^5a_4^2a_2^4+2522520\,a_3a_1^6a_4a_2^4+1081080\,a_1^4a_2^5a_3a_4+498960\,a_3a_6^2a_1^2a_2^2+75075\,a_1^9a_6^2+990\,a_2^8a_1a_4+110880\,a_3^3a_6a_4a_2+7567560\,a_3^2a_1^5a_2a_4^2+3603600\,a_1^4a_4^2a_3a_2^3+1441440\,a_1^7a_6a_4a_2^2+5045040\,a_3a_1^6a_6a_4a_2+12612600\,a_3^3a_1^6a_2a_4+831600\,a_3a_1^2a_2^2a_4^3+7567560\,a_1^5a_6a_3^2a_2^2+9240\,a_2^6a_6a_3+34650\,a_1a_4^4a_2^2+277200\,a_1^3a_6^2a_2^3+83160\,a_1^2a_3a_4^4+420420\,a_3^6a_1^3+600600\,a_1^9a_6a_2a_4+10090080\,a_3^2a_1^5a_4a_2^3+2702700\,a_1^8a_6a_3a_2^2+831600\,a_3a_1^2a_4^2a_2^4+27720\,a_6^2a_2^3a_3+166320\,a_3^3a_2^2a_4^2+72072\,a_3^5a_2^3+3363360\,a_3a_1^6a_6a_2^3+1801800\,a_3a_1^4a_2a_4^3+831600\,a_3^2a_1a_2^3a_4^2+3603600\,a_3^2a_1^3a_4a_2^4+1441440\,a_1^5a_6a_2^3a_4+554400\,a_1^3a_6a_2^4a_4+816\,a_2^3a_1^{15}+1801800\,a_3a_1^4a_2^4a_6+1081080\,a_3^4a_1a_4a_2^2+2162160\,a_3^3a_1^2a_2a_4^2+7207200\,a_3^4a_1^7a_2+168168\,a_3^6a_1a_2+4204200\,a_3^3a_1^4a_2^4+840840\,a_3a_1^6a_4^3+360360\,a_1^7a_6^2a_2+9240\,a_6^3a_1a_2+180180\,a_3^4a_1a_4^2+504504\,a_3a_1^6a_6^2+360360\,a_6^2a_3^2a_1^3+540540\,a_1^5a_6^2a_2^2+72072\,a_3^5a_2a_4+840840\,a_3^4a_6a_1^3+110880\,a_1^3a_6a_4^3+10296\,a_6a_3^5+5405400\,a_3^2a_1^7a_6a_2+3603600\,a_3^3a_1^2a_2^3a_4+18480\,a_6^3a_1^3+1351350\,a_3a_1^8a_4a_6+18480\,a_3^3a_4^3+55440\,a_1^3a_2^6a_6+3960\,a_2^7a_3a_4+23760\,a_2^7a_3^2a_1+3960\,a_2^7a_1a_6+5045040\,a_3^4a_1^3a_4a_2+5045040\,a_1^6a_4^2a_3a_2^2+12612600\,a_3^3a_1^4a_4a_2^2+5405400\,a_3^2a_1^3a_2^2a_4^2+2772\,a_1a_4^5+480480\,a_1^7a_4^3a_2+3783780\,a_3^4a_1^5a_4+2522520\,a_3^3a_1^4a_4^2+46200\,a_1a_4^3a_2^4+369600\,a_1^3a_2^3a_4^3+4204200\,a_3^4a_1^3a_2^3+360360\,a_1^7a_6a_4^2+300300\,a_1^9a_6a_2^3+2702700\,a_3^2a_1^7a_2^4+720720\,a_3^2a_1^3a_4^3+9459450\,a_3^4a_1^5a_2^2+960960\,a_1^{10}a_6a_3a_2+450450\,a_1^9a_2^2a_4^2+480480\,a_1^{10}a_3a_4^2+2702700\,a_1^8a_2^3a_3a_4+14280\,a_1^{13}a_4^2+123760\,a_1^{12}a_2^3a_3+270270\,a_3a_2^5a_1^8+28560\,a_1^{13}a_6a_2+131040\,a_4^2a_1^{11}a_2+a_1^{21}+4804800\,a_3^2a_1^9a_4a_2+342\,a_1^{17}a_4+742560\,a_4a_1^{11}a_3^2+150150\,a_4a_2^4a_1^9+380\,a_1^{18}a_3+7207200\,a_3^3a_1^8a_2^2+1701700\,a_3^4a_1^9+131040\,a_6a_1^{11}a_2^2+87360\,a_1^{11}a_2^3a_4+240240\,a_3a_1^{10}a_2^4+11\,a_1a_2^{10}+2722720\,a_3^3a_1^{10}a_2+123760\,a_6a_1^{12}a_3+$$

$$28560\,a_1{}^{13}a_4a_2{}^2 + 5814\,a_1{}^{16}a_3a_2 + 1113840\,a_3{}^2a_1{}^{11}a_2{}^2 + 36720\,a_3a_1{}^{14}a_4 + 257040\,a_3{}^2a_1{}^{13}a_2 + 1441440\,a_3a_1{}^{10}a_4a_2{}^2 + 171\,a_1{}^{17}a_2{}^2)x^{22} + 1/23\,(-1670760\,a_3a_1{}^{11}a_2{}^4 - 18378360\,a_3{}^4a_1{}^8a_2 - 3603600\,a_1{}^8a_2{}^3a_4{}^2 - 495040\,a_1{}^{12}a_6a_2{}^2 - 30270240\,a_3{}^4a_1{}^6a_2{}^2 - 810810\,a_1{}^8a_4{}^2a_6 - 7920\,a_6{}^2a_2a_4{}^2 - 411840\,a_3{}^2a_1{}^2a_2{}^7 - 3363360\,a_1{}^6a_2{}^4a_4{}^2 - 47520\,a_6{}^2a_4{}^2a_1{}^2 - 300300\,a_3{}^4a_2{}^3a_4 - 3363360\,a_1{}^4a_2{}^6a_3{}^2 - 1921920\,a_1{}^{10}a_2{}^2a_4{}^2 - 221760\,a_2{}^6a_1{}^2a_4{}^2 - 23100\,a_6a_4{}^3a_2{}^2 - 124032\,a_1{}^{15}a_4a_3 - 102960\,a_3{}^4a_2a_4{}^2 - 1801800\,a_1{}^8a_6a_2{}^4 - 2102100\,a_1{}^4a_2{}^3a_4{}^3 - 1513512\,a_1{}^6a_6{}^2a_2{}^2 - 216580\,a_1{}^{12}a_4a_6 - 5885880\,a_1{}^3a_2{}^5a_3{}^3 - 2942940\,a_1{}^6a_2{}^2a_4{}^3 - 16170\,a_4a_2{}^6a_6 - 102960\,a_6a_3{}^4a_2{}^2 - 33633600\,a_1{}^7a_3{}^3a_2{}^3 - 2102100\,a_3{}^2a_1{}^4a_4{}^3 - 4804800\,a_3{}^3a_1{}^7a_6 - 10\,a_1{}^{22} - 10\,a_2{}^{11} - 7920\,a_3{}^2a_4{}^4 - 280280\,a_1{}^{10}a_4{}^3 - 48048\,a_3{}^6a_2{}^2 - 4084080\,a_3{}^5a_1{}^7 - 1890\,a_1{}^{19}a_3 - 34320\,a_6{}^3a_1{}^4 - 1710\,a_1{}^{18}a_4 - 495\,a_6{}^3a_4 - 1320\,a_6a_4{}^4 - 252252\,a_1{}^6a_4{}^4 - 9009\,a_3{}^6a_4 - 19305\,a_3{}^7a_1 - 108108\,a_2{}^5a_3{}^4 - 960960\,a_3{}^6a_1{}^4 - 3675672\,a_3{}^4a_1{}^{10} - 7920\,a_2{}^8a_3{}^2 - 1949220\,a_4a_1{}^{12}a_3{}^2 - 2450448\,a_3{}^2a_1{}^{10}a_6 - 1216215\,a_4a_1{}^8a_2{}^5 - 30030\,a_1{}^6a_2{}^8 - 7150\,a_2{}^9a_1{}^4 - 64350\,a_1{}^8a_2{}^7 - 15135120\,a_3{}^2a_1{}^4a_6a_2{}^3 - 1201200\,a_3{}^3a_1a_6a_2{}^3 - 949620\,a_3{}^3a_1{}^{13} - 9690\,a_2{}^3a_1{}^{16} - 26730\,a_1{}^2a_2{}^8a_4 - 8910\,a_6{}^2a_3{}^2a_4 - 22072050\,a_3{}^3a_1{}^5a_2{}^4 - 231660\,a_1{}^4a_2{}^7a_4 - 7752\,a_1{}^{16}a_6 - 823680\,a_3{}^3a_1a_6a_2a_4 - 5405400\,a_3{}^2a_1{}^2a_6a_2{}^2a_4 - 18162144\,a_3a_1{}^5a_6a_2{}^2a_4 - 80080\,a_2{}^6a_1{}^{10} - 1281280\,a_1{}^{10}a_6a_2{}^3 - 12612600\,a_3{}^2a_1{}^4a_4a_6a_2 - 415800\,a_6{}^2a_1{}^2a_4a_2{}^2 - 831600\,a_2{}^2a_6a_3a_4{}^2a_1 - 99792\,a_2{}^5a_3{}^2a_6 - 1081080\,a_6{}^2a_1{}^4a_2{}^3 - 249480\,a_2{}^4a_4{}^2a_3{}^2 - 138600\,a_2{}^2a_4{}^3a_3{}^2 - 6486480\,a_3{}^2a_1{}^8a_4{}^2 - 249480\,a_6{}^2a_1{}^2a_2{}^4 - 540540\,a_2a_4{}^4a_1{}^4 - 249480\,a_2{}^2a_4{}^4a_1{}^2 - 3603600\,a_1{}^3a_6a_3a_4{}^2a_2 - 1576575\,a_1{}^8a_4{}^3a_2 - 420420\,a_2{}^6a_3{}^3a_1 - 900900\,a_6{}^2a_1{}^4a_4a_2 - 31680\,a_6{}^3a_1{}^2a_2 - 10090080\,a_3{}^5a_1{}^5a_2 - 1345344\,a_1{}^6a_2{}^5a_6 - 480480\,a_1{}^4a_6a_2{}^6 - 18918900\,a_3{}^4a_1{}^4a_2{}^3 - 840840\,a_3{}^5a_1a_2{}^3 - 210\,a_1{}^{20}a_2 - 3783780\,a_3{}^4a_1{}^2a_2{}^4 - 1441440\,a_1{}^4a_4{}^2a_2{}^5 - 277200\,a_3a_6{}^2a_2{}^3a_1 - 6306300\,a_3{}^3a_1{}^5a_4{}^2 - 7796880\,a_3{}^3a_1{}^{11}a_2 - 1441440\,a_3{}^5a_1{}^3a_4 - 8408400\,a_3{}^4a_1{}^6a_4 - 6306300\,a_3{}^5a_1{}^3a_2{}^2 - 720720\,a_3{}^6a_1{}^2a_2 - 3243240\,a_3{}^2a_1{}^2a_6a_2{}^4 - 22702680\,a_3{}^2a_1{}^6a_6a_2{}^2 - 8408400\,a_3{}^3a_1{}^3a_6a_2{}^2 - 2882880\,a_1{}^9a_3a_6a_4 - 61880\,a_1{}^{12}a_2{}^5 - 54054\,a_3{}^5a_6a_1 - 1370880\,a_4a_1{}^{13}a_3a_2 - 720720\,a_3{}^2a_6{}^2a_1{}^4 - 38610\,a_3{}^3a_6{}^2a_1 - 1801800\,a_3{}^4a_6a_1{}^4 - 1801800\,a_3a_6{}^2a_2{}^2a_1{}^3 - 30600\,a_1{}^{14}a_2{}^4 - 617760\,a_6{}^2a_3{}^2a_1{}^2a_2 - 3243240\,a_1{}^4a_2{}^2a_6a_4{}^2 - 95040\,a_2a_6a_3{}^2a_4{}^2 - 3027024\,a_1{}^6a_2a_6a_4{}^2 - 617760\,a_1{}^2a_6a_3{}^2a_4{}^2 - 2522520\,a_6{}^2a_3a_1{}^5a_2 - 2522520\,a_1{}^5a_6a_3a_4{}^2 - 6306300\,a_1{}^6a_3{}^2a_6a_4 - 12972960\,a_3{}^2a_1{}^8a_6a_2 - 12612600\,a_3{}^3a_1{}^5a_6a_2 - 1441440\,a_3{}^4a_1{}^2a_6a_2 - 14294280\,a_3{}^2a_1{}^{10}a_4a_2 - 63360\,a_2{}^7a_1{}^2a_6 - 97020\,a_2{}^6a_3{}^2a_4 - 45405360\,a_3{}^3a_1{}^5a_4a_2{}^2 - 6306300\,a_3{}^4a_1{}^2a_4a_2{}^2 - 22702680\,a_3{}^2a_1{}^4a_2{}^2a_4{}^2 - 4729725\,a_1{}^8a_2{}^2a_6a_4 - 13860\,a_1{}^2a_4{}^5 - 1801800\,a_3{}^3a_2{}^2a_4{}^2a_1 - 277200\,a_1{}^2a_6a_4{}^3a_2 - 20180160\,a_3{}^3a_2{}^3a_4a_1{}^3 - 2162160\,a_3{}^3a_2{}^4a_4a_1 - 1801800\,a_3{}^2a_1{}^2a_4{}^3a_2 - 576576\,a_3{}^5a_4a_1a_2 - 8408400\,a_3{}^3a_2a_4{}^2a_1{}^3 - 6054048\,a_3a_1{}^5a_4{}^3a_2 - 1681680\,a_1{}^{10}a_4a_6a_2 - 1921920\,a_2{}^6a_3a_4a_1{}^3 - 22702680\,a_3{}^2a_1{}^6a_4{}^2a_2 - 15765750\,a_3{}^4a_1{}^4a_4a_2 - 34594560\,a_3{}^3a_1{}^7a_4a_2 - 1900\,a_1{}^{18}a_2{}^2 - 37837800\,a_1{}^8a_3{}^2a_4a_2{}^2 - 22072050\,a_3{}^2a_1{}^4a_4a_2{}^4 - 8072064\,a_3a_1{}^5a_4a_2{}^5 - 8648640\,a_3a_6a_1{}^3a_4a_2{}^3 - 4324320\,a_2{}^2a_4{}^3a_3a_1{}^3 - 665280\,a_2{}^3a_4{}^3a_3a_1 - 44144100\,a_3{}^2a_1{}^6a_2{}^3a_4 - 411840\,a_6{}^2a_3a_4a_1{}^3 - 2522520\,a_2{}^5a_3a_6a_1{}^3 - 194040\,a_2{}^6a_3a_6a_1 - 6306300\,a_2{}^4a_4{}^2a_3a_1{}^3 - 582120\,a_2{}^5a_4{}^2a_3a_1 - 126720\,a_1a_2{}^7a_4a_3 - 138600\,a_2a_4{}^4a_1a_3 - 8828820\,a_1{}^5a_2{}^4a_6a_3 - 63360\,a_1a_6a_4{}^3a_3 - 2598960\,a_1{}^{11}a_6a_2a_3 - 8408400\,a_1{}^9a_6a_2{}^2a_3 - 16170\,a_2{}^5a_4{}^3 - 8408400\,a_1{}^9a_2a_4{}^2a_3 - 18918900\,a_1{}^7a_2{}^2a_4{}^2a_3 - 17657640\,a_1{}^5a_2{}^3a_4{}^2a_3 - 1921920\,a_3{}^3a_1{}^3a_4a_6 - 12812800\,a_2{}^3a_1{}^9a_4a_3 - 14414400\,a_4a_1{}^7a_2{}^4a_3 - 12612600\,a_1{}^7a_6a_2{}^3a_3 - 3153150\,a_1{}^4a_6a_2{}^4a_4 - 582120\,a_1{}^2a_6a_2{}^5a_4 - 277200\,a_3{}^2a_6a_2{}^3a_4 - 997920\,a_6a_4{}^2a_1{}^2a_2{}^3 - 5940480\,a_4a_1{}^{11}a_2{}^2a_3 - 1320\,a_2{}^8a_6 - 6486480\,a_3{}^2a_1{}^2a_2{}^3a_4{}^2 - 3783780\,a_1{}^2a_3{}^2a_4a_2{}^5 - 5885880\,a_1{}^6a_6a_2{}^3a_4 - 720720\,a_3{}^4a_1{}^2a_4{}^2 - 2310\,a_4{}^5a_2 - 190080\,a_6{}^2a_1a_4a_2a_3 - 997920\,a_1a_6a_2{}^4a_4a_3 - 930240\,a_3{}^2a_1{}^{14}a_2 - 97920\,a_1{}^{14}a_6a_2 - 5280\,a_2{}^7a_4{}^2 - 41580\,a_6a_4{}^2a_2{}^4 - 23100\,a_6{}^2a_2{}^3a_4 - 13860\,a_4{}^4a_2{}^3 - 5940\,a_6{}^3a_1a_3 - 300300\,a_3a_4{}^4a_1{}^3 - 485100\,a_2{}^4a_4{}^3a_1{}^2 - 299880\,a_1{}^{13}a_6a_3 - 137280\,a_3{}^3a_1a_4{}^3 - 648648\,a_3a_1{}^5a_2{}^7 - 810810\,a_1{}^8a_6{}^2a_2 - 756756\,a_1{}^6a_2{}^6a_4 - 300300\,a_1{}^4a_6a_4{}^3 - 420420\,a_6{}^2a_1{}^6a_4 - 19305\,a_6a_3{}^4a_4 - 900900\,a_3a_1{}^7a_6{}^2 -$$

$$12972960\,a_1{}^7a_3a_6a_4a_2 - 2640\,a_6{}^3a_2{}^2 - 144144\,a_1{}^{10}a_6{}^2 - 48960\,a_1{}^{14}a_4{}^2 - 77520\,a_3{}^2a_1{}^{16} - 660\,a_1{}^2a_2{}^{10} - 1299480\,a_1{}^{11}a_4{}^2a_3 - 2162160\,a_1{}^7a_4{}^3a_3 - 495\,a_2{}^9a_4 - 8168160\,a_3{}^3a_1{}^9a_4 - 495040\,a_1{}^{12}a_2a_4{}^2 - 115830\,a_2{}^8a_3a_1{}^3 - 5940\,a_2{}^9a_3a_1 - 23823800\,a_3{}^3a_1{}^9a_2{}^2 - 8316\,a_6{}^2a_2{}^5 - 1621620\,a_1{}^7a_2{}^6a_3 - 47520\,a_3{}^2a_6{}^2a_2{}^2 - 1081080\,a_2{}^4a_1{}^{10}a_4 - 14414400\,a_3{}^2a_1{}^8a_2{}^4 - 2162160\,a_3a_1{}^9a_2{}^5 - 10090080\,a_1{}^6a_2{}^5a_3{}^2 - 209304\,a_3a_1{}^{15}a_2{}^2 - 10890880\,a_3{}^2a_1{}^{10}a_2{}^3 - 4455360\,a_3{}^2a_1{}^{12}a_2{}^2 - 165240\,a_1{}^{14}a_4a_2{}^2 - 556920\,a_4a_1{}^{12}a_2{}^3 - 26163\,a_1{}^{16}a_4a_2 - 30780\,a_1{}^{17}a_3a_2 - 771120\,a_3a_1{}^{13}a_2{}^3)x^{23} + 1/24\,(-18118100\,a_3{}^2a_1{}^9a_2{}^4 - 21441420\,a_3{}^4a_1{}^9a_2 - 15048\,a_1{}^{17}a_4a_2 - 16830\,a_2{}^8a_3a_4 - 750750\,a_1{}^9a_6{}^2a_2 - 2438436\,a_3a_1{}^{10}a_2{}^5 - 4234230\,a_1{}^7a_4{}^3a_2{}^2 - 110772\,a_1{}^{15}a_4a_2{}^2 - 442680\,a_1{}^{13}a_4a_2{}^3 - 154440\,a_3{}^3a_2a_4{}^3 - 2052050\,a_1{}^9a_6a_2{}^4 - 4104100\,a_1{}^9a_2{}^3a_4{}^2 - 25525500\,a_3{}^3a_1{}^{10}a_2{}^2 - 47747700\,a_3{}^3a_1{}^8a_2{}^3 - 135660\,a_1{}^{13}a_6a_4 - 104445\,a_1{}^3a_2{}^8a_4 - 4414410\,a_3{}^2a_1{}^5a_4{}^3 - 660660\,a_3{}^3a_2{}^3a_4{}^2 - 1836450\,a_1{}^3a_2{}^4a_4{}^3 - \tfrac{279279}{2}\,a_3{}^6a_1a_4 - 58344\,a_1{}^{15}a_6a_2 - 875160\,a_3{}^3a_1{}^2a_4{}^3 - 1279278\,a_1{}^6a_2{}^7a_3 - 3783780\,a_3{}^4a_6a_1{}^5 - 5135130\,a_1{}^7a_2{}^4a_4{}^2 - 6786780\,a_3{}^2a_1{}^9a_4{}^2 - 900900\,a_3a_1{}^8a_6{}^2 - 45045\,a_6a_3{}^3a_4{}^2 - 620160\,a_3{}^2a_1{}^{15}a_2 - 18603585\,a_2{}^5a_3{}^3a_1{}^4 - 1207206\,a_4a_1{}^7a_2{}^6 - 76230\,a_2{}^2a_4{}^4a_3 - 2198196\,a_6{}^2a_1{}^5a_2{}^3 - 244200\,a_1{}^3a_6a_2{}^7 - 238095\,a_3{}^3a_6{}^2a_1{}^2 - 17385\,a_1{}^{18}a_3a_2 - 5207202\,a_3{}^5a_1{}^8 - 223860\,a_1{}^{11}a_4{}^3 - 64350\,a_2{}^7a_3{}^3 - 29172\,a_1{}^{15}a_4{}^2 - 3876\,a_1{}^{17}a_6 - 43605\,a_3{}^2a_1{}^{17} - 49434\,a_1{}^3a_4{}^5 - 639540\,a_3{}^3a_1{}^{14} - 56628\,a_6{}^3a_1{}^5 - 855\,a_1{}^{19}a_4 - 627\,a_2{}^{10}a_3 - 81510\,a_2{}^7a_1{}^9 - 105\,a_2a_1{}^{21} - 4324320\,a_3{}^5a_1{}^4a_4 - 324324\,a_3{}^5a_4a_2{}^2 - \tfrac{729729}{2}\,a_3{}^5a_6a_1{}^2 - 231231\,a_3{}^5a_2{}^4 - 97188\,a_1{}^{11}a_6{}^2 - 333333\,a_1{}^7a_4{}^4 - 2234232\,a_3{}^6a_1{}^5 - 3202290\,a_3{}^4a_1{}^{11} - 3207204\,a_1{}^5a_2{}^5a_4{}^2 - 103950\,a_2{}^6a_4{}^2a_3 - 63360\,a_1a_2{}^7a_4{}^2 - 530244\,a_1{}^5a_2{}^7a_4 - 921690\,a_2{}^2a_4{}^4a_1{}^3 - 1733160\,a_1{}^3a_2{}^7a_3{}^2 - 974610\,a_4{}^2a_1{}^{12}a_3 - 180180\,a_2{}^4a_4{}^3a_3 - \tfrac{1869}{2}\,a_1{}^{20}a_3 - 44144100\,a_3{}^3a_1{}^6a_2{}^4 - 4774770\,a_3a_6{}^2a_2{}^2a_1{}^4 - 5012280\,a_4a_1{}^{12}a_3a_2{}^2 - 21861840\,a_3{}^3a_1{}^6a_6a_2 - 277200\,a_6{}^2a_1a_4a_2{}^3 - 3999996\,a_1{}^7a_2a_6a_4{}^2 - 304920\,a_2{}^3a_6a_3a_4{}^2 - 7807800\,a_3{}^3a_1{}^2a_6a_2{}^3 - 13573560\,a_3{}^2a_1{}^9a_6a_2 - 1649340\,a_6{}^2a_3a_1{}^2a_2{}^3 - 3909906\,a_6{}^2a_3a_1{}^6a_2 - 3686760\,a_1{}^3a_2{}^3a_6a_4{}^2 - 3909906\,a_1{}^6a_6a_3a_4{}^2 - 34054020\,a_3{}^2a_1{}^5a_6a_2{}^3 - 13153140\,a_3{}^2a_1{}^3a_6a_2{}^4 - 33513480\,a_3{}^2a_1{}^7a_6a_2{}^2 - 2426424\,a_1{}^{10}a_3a_6a_4 - 1693692\,a_6{}^2a_1{}^5a_4a_2 - 1305612\,a_3{}^2a_1a_6a_2{}^5 - 3564\,a_3a_4{}^5 - 8288280\,a_1{}^7a_6a_3{}^2a_4 - \tfrac{45045}{2}\,a_3{}^7a_2 - 24594570\,a_3{}^3a_1{}^4a_6a_2{}^2 - 15840\,a_1a_6a_4{}^4 - 160380\,a_6{}^2a_1{}^3a_4{}^2 - 6029100\,a_3a_6a_1{}^2a_4a_2{}^4 - 3631320\,a_3{}^2a_1a_6a_2{}^3a_4 - 26486460\,a_3{}^2a_1{}^5a_6a_2a_4 - 15135120\,a_3a_1{}^8a_6a_2a_4 - 1467180\,a_3{}^4a_2a_4{}^2a_1 - 141570\,a_3{}^7a_1{}^2 - 4948020\,a_1{}^2a_6a_3a_4{}^2a_2{}^2 - 9549540\,a_2a_6a_3a_4{}^2a_1{}^4 - 21261240\,a_3{}^2a_1{}^3a_4a_6a_2{}^2 - 24144120\,a_3a_1{}^4a_6a_2{}^3a_4 - 31026996\,a_1{}^6a_3a_6a_4a_2{}^2 - 32162130\,a_1{}^6a_2{}^3a_4{}^2a_3 - 7087080\,a_3{}^2a_1{}^3a_4{}^3a_2 - 276705\,a_3{}^4a_6a_1a_4 - 824670\,a_2a_4{}^4a_1{}^2a_3 - 5945940\,a_3{}^4a_1{}^3a_6a_2 - 16216200\,a_1{}^8a_6a_2{}^3a_3 - 8108100\,a_1{}^{10}a_2a_4{}^2a_3 - 24324300\,a_1{}^8a_2{}^2a_4{}^2a_3 - 5225220\,a_3{}^3a_1{}^4a_4a_6 - 6594588\,a_1{}^5a_2{}^2a_6a_4{}^2 - 71280\,a_2a_6a_3a_4{}^3 - \tfrac{63063}{2}\,a_3{}^5a_4{}^2 - 368280\,a_1{}^2a_6a_3a_4{}^3 - 2316600\,a_1{}^3a_6a_3{}^2a_4{}^2 - 2316600\,a_6{}^2a_3{}^2a_1{}^3a_2 - 988680\,a_1{}^3a_2a_6a_4{}^3 - 13533520\,a_1{}^{10}a_3a_2{}^3a_4 - 85765680\,a_3{}^3a_1{}^6a_4a_2{}^2 - 623700\,a_3{}^2a_6{}^2a_2{}^2a_1 - 95040\,a_6{}^2a_1a_4{}^2a_2 - 1483020\,a_6{}^2a_1{}^3a_4a_2{}^2 - 27117090\,a_3{}^4a_1{}^3a_4a_2{}^2 - 103455\,a_2{}^8a_3{}^2a_1 - 12072060\,a_2{}^2a_4{}^3a_3a_1{}^4 - 15387372\,a_3a_1{}^6a_2{}^5a_4 - 19819800\,a_1{}^8a_3a_4a_2{}^4 - 5705700\,a_3a_1{}^4a_4a_2{}^6 - 51081030\,a_3{}^2a_1{}^5a_4{}^2a_2{}^2 - 7297290\,a_2{}^5a_3a_6a_1{}^4 - 18243225\,a_2{}^4a_4{}^2a_3a_1{}^4 - 948600\,a_1{}^{14}a_3a_2a_4 - 106920\,a_6{}^2a_3a_4a_2{}^2 - 1003860\,a_6{}^2a_3a_4a_1{}^4 - 44144100\,a_3{}^2a_1{}^9a_4a_2{}^2 - 1999998\,a_6{}^2a_1{}^7a_2{}^2 - 738738\,a_3{}^6a_1a_2{}^2 - 330330\,a_6a_3{}^3a_2{}^4 - 1949220\,a_1{}^{12}a_6a_2a_3 - 564564\,a_1{}^5a_6a_4{}^3 - 486486\,a_6{}^2a_1{}^7a_4 - 1069068\,a_1{}^5a_2{}^6a_6 - 15840\,a_2{}^8a_1a_6 - 1351350\,a_3{}^2a_6{}^2a_1{}^5 - 750750\,a_1{}^9a_4{}^2a_6 - 854700\,a_1{}^3a_4{}^2a_2{}^6 - 5465460\,a_3{}^3a_1{}^8a_6 - 5940\,a_6{}^3a_1a_4 - 3243240\,a_3{}^6a_1{}^3a_2 - 2972970\,a_3{}^4a_1{}^3a_4{}^2 - 16711695\,a_3{}^4a_1{}^3a_2{}^4 - 36795\,a_2{}^9a_3a_1{}^2 - 1651650\,a_1{}^9a_2a_4{}^3 - 27720\,a_2a_4{}^5a_1 - 10930920\,a_3{}^3a_1{}^6a_4{}^2 - 2522520\,a_1{}^8a_4{}^3a_3 - 2792790\,a_2{}^6a_3{}^3a_1{}^2 - 921690\,a_6{}^2a_1{}^3a_2{}^4 - 33165\,a_6{}^3a_1{}^2a_3 - 106920\,a_6{}^3a_1{}^3a_2 - 10395\,a_6{}^2a_3a_4{}^2 - 117315\,a_6{}^2a_3{}^2a_4a_1 - 1247400\,a_2a_6a_3{}^2a_4{}^2a_1 - 1104840\,a_6{}^2a_1{}^2a_4a_2a_3 - 1185030\,a_2{}^6a_3a_6a_1{}^2 - 5250960\,a_3{}^3a_1{}^2a_6a_2a_4 - 103950\,a_3{}^2a_1a_4{}^4 - 4504500\,a_1{}^5a_2{}^3a_4{}^3 - 49369320\,a_3{}^4a_1{}^7a_2{}^2 - 29700\,a_2{}^7a_3a_6 - \tfrac{99099}{2}\,a_1{}^7a_2{}^8 - 31680\,a_6{}^3a_1a_2{}^2 - 20180160\,a_3{}^5a_1{}^4a_2{}^2 - 22338\,a_2{}^4a_1{}^{15} - 16936920\,a_1{}^7a_3{}^2a_2{}^5 - 8198190\,a_3{}^2a_1{}^5a_2{}^6 - 5940\,a_1a_2{}^9a_4 -$$

$$2607\,{a_2}^{10}{a_1}^3 - 357000\,{a_1}^{13}a_2{a_4}^2 - 1714440\,{a_1}^{11}{a_2}^2{a_4}^2 - 2054052\,{a_1}^7a_6{a_2}^5 - 1142960\,{a_1}^{11}a_6{a_2}^3 - 8108100\,{a_1}^{10}a_6{a_2}^2a_3 - 6543810\,{a_3}^3{a_1}^{12}a_2 - 1381590\,{a_3}^2{a_1}^{13}a_4 - 6156\,{a_1}^{17}{a_2}^3 - 2342340\,a_3{a_1}^8{a_2}^6 - 76230\,a_3a_6{a_2}^4 - \frac{701415}{2}\,{a_2}^8a_3{a_1}^4 - 1471470\,{a_2}^5{a_1}^9a_4 - 1531530\,a_3{a_1}^{12}{a_2}^4 - 10767120\,{a_3}^2{a_1}^{11}{a_2}^3 - 1042860\,a_4{a_1}^{11}{a_2}^4 - 71706\,a_4{a_1}^{16}a_3 - 590580\,a_3{a_1}^{14}{a_2}^3 - 780120\,{a_1}^2{a_2}^7a_4a_3 - 136629\,{a_1}^{16}a_3{a_2}^2 - 357000\,{a_1}^{13}a_6{a_2}^2 - 52836\,{a_1}^{13}{a_2}^5 - 795795\,a_3{a_4}^4{a_1}^4 - 194040\,{a_2}^5a_4{a_3}^3a_1 - 3577140\,{a_3}^2{a_1}^{13}{a_2}^2 - 4019400\,{a_2}^3{a_4}^3a_3{a_1}^2 - 33513480\,{a_3}^2{a_1}^7{a_4}^2a_2 - 12809160\,{a_3}^2{a_1}^{11}a_2a_4 - 45045000\,{a_3}^3{a_1}^8a_2a_4 - 8468460\,{a_1}^7a_6{a_2}^3a_4 - 3264030\,{a_2}^4{a_4}^2{a_3}^2a_1 - 3555090\,{a_2}^5{a_4}^2a_3{a_1}^2 - 1065\,{a_1}^{19}{a_2}^2 - 81900\,{a_1}^{11}{a_2}^6 - 16731\,{a_1}^5{a_2}^9 - 45045\,{a_3}^3a_6{a_2}^2a_3 - 468468\,{a_2}^5{a_3}^3a_4 - 6930\,a_3{a_6}^3a_2 - 63063\,{a_3}^5a_2a_6 - 7759752\,{a_3}^3{a_1}^{10}a_4 - 1531530\,{a_3}^4a_1{a_2}^5 - 179010\,{a_1}^{14}a_6a_3 - 5927922\,{a_3}^5{a_1}^2{a_2}^3 - 19339320\,{a_3}^5{a_1}^6a_2 - 12372360\,{a_3}^4{a_1}^7a_4 - 1893528\,{a_3}^2{a_1}^{11}a_6 - 1099098\,a_2{a_4}^4{a_1}^5 - 46666620\,{a_3}^4{a_1}^5{a_2}^3 - 120\,a_1{a_2}^{11} - 99792\,{a_6}^2a_1{a_2}^5 - 166320\,{a_2}^3{a_4}^4a_1 - 463320\,a_6{a_3}^3a_4{a_2}^2 - 277200\,a_1a_6{a_4}^3{a_2}^2 - 61801740\,{a_3}^3{a_2}^3a_4{a_1}^4 - 14234220\,{a_3}^3{a_1}^2a_4{a_2}^4 - 26306280\,{a_3}^2{a_1}^3{a_2}^3{a_4}^2 - 11711700\,{a_3}^3{a_1}^2{a_4}^2{a_2}^2 - 1467180\,{a_3}^4a_6a_1{a_2}^2 - 24594570\,{a_3}^3{a_2}{a_4}^2{a_1}^4 - 1343160\,{a_1}^{11}a_6a_2a_4 - 36576540\,{a_3}^4{a_1}^5a_2a_4 - 3999996\,{a_3}^5{a_1}^2a_2a_4 - 4264260\,{a_3}^4a_1{a_2}^3a_4 - 216216\,{a_2}^5a_3a_6a_4 - 70270200\,{a_1}^7{a_3}^2{a_2}^3a_4 - 15675660\,{a_1}^3{a_2}^5{a_3}^2a_4 - 52026975\,{a_3}^2{a_1}^5{a_2}^4a_4 - 4954950\,{a_1}^9a_6{a_2}^2a_4 - 2203740\,{a_1}^3{a_2}^5a_6a_4 - 1268190\,a_1{a_3}^2{a_4}{a_2}^6 - 194040\,a_1a_6{a_2}^6a_4 - 10342332\,a_3{a_1}^6a_2{a_4}^3 - 498960\,a_6a_4{}^2a_1a_2{}^4 - 16081065\,a_3{a_1}^6a_6{a_2}^4 - 6756750\,{a_1}^5a_6{a_2}^4a_4 - 9/2\,{a_1}^{23} - 1815660\,{a_2}^2{a_4}^3{a_3}^2a_1)x^{24}$$

The formal group law $F_C(x,y)$ over $\mathbb{Z}[a_1,a_2,a_3,a_4,a_6]$ equals

$$x+y$$

$$-a_1xy$$

$$-a_2x^2y - a_2xy^2$$

$$-2\,a_3x^3y + a_1a_2x^2y^2 - 3\,a_3x^2y^2 - 2\,a_3xy^3$$

$$-2\,a_3a_1x^4y - 2\,a_4x^4y - a_3a_1x^3y^2 - 4\,a_4x^3y^2 + a_2{}^2x^3y^2 + a_2{}^2x^2y^3 - a_3a_1x^2y^3 - 4\,a_4x^2y^3 - 2\,a_3a_1xy^4 - 2\,a_4xy^4$$

$$-2\,a_1a_4x^5y - 2\,a_2a_3x^5y - 2\,a_3{a_1}^2x^5y - a_3{a_1}^2x^4y^2 - a_1a_4x^4y^2 + 2\,a_2a_3x^3y^3 - a_1{a_2}^2x^3y^3 - a_3{a_1}^2x^3y^3 - a_3{a_1}^2x^2y^4 - a_1a_4x^2y^4 - 2\,a_1a_4xy^5 - 2\,a_3a_1{}^2xy^5 - 2\,a_2a_3xy^5$$

$$-2\,a_2a_4x^6y - 2\,a_3{a_1}^3x^6y - 3\,a_6x^6y - 2\,{a_3}^2x^6y - 4\,a_3a_1a_2x^6y - 2\,a_4{a_1}^2x^6y - 9\,a_6x^5y^2 - a_4{a_1}^2x^5y^2 - a_3{a_1}^3x^5y^2 - a_3a_1a_2x^5y^2 + 4\,a_2a_4x^4y^3 - a_4{a_1}^2x^4y^3 - 15\,a_6x^4y^3 + 4\,{a_3}^2x^4y^3 - 2\,a_3a_1a_2x^4y^3 - {a_2}^3x^4y^3 - a_3{a_1}^3x^4y^3 - a_4{a_1}^2x^3y^4 - a_3{a_1}^3x^3y^4 + 4\,a_2a_4x^3y^4 + 4\,{a_3}^2x^3y^4 - {a_2}^3x^3y^4 - 15\,a_6x^3y^4 - 2\,a_3a_1a_2x^3y^4 - a_3{a_1}^3x^2y^5 - a_4{a_1}^2x^2y^5 - a_3a_1a_2x^2y^5 - 9\,a_6x^2y^5 - 2\,a_4a_1{}^2xy^6 - 4\,a_3a_1a_2xy^6 - 2\,{a_3}^2xy^6 - 2\,a_3{a_1}^3xy^6 - 2\,a_2a_4xy^6 - 3\,a_6xy^6$$

$$-2\,a_3{a_2}^2x^7y - 6\,a_1a_6x^7y - 2\,{a_1}^3a_4x^7y - 4\,a_4a_3x^7y - 6\,{a_3}^2a_1x^7y - 2\,{a_1}^4a_3x^7y - 4\,a_4a_1a_2x^7y - 6\,{a_1}^2a_2a_3x^7y - {a_1}^4a_3x^6y^2 - {a_3}^2a_1x^6y^2 - {a_1}^3a_4x^6y^2 - 2\,{a_1}^2a_2a_3x^6y^2 - 12\,a_1a_6x^6y^2 - a_4a_1a_2x^6y^2 + 4\,{a_3}^2a_1x^5y^3 + 12\,a_4a_3x^5y^3 - 3\,{a_1}^2a_2a_3x^5y^3 - 2\,a_3{a_2}^2x^5y^3 - {a_1}^4a_3x^5y^3 - 2\,a_4a_1a_2x^5y^3 - 15\,a_1a_6x^5y^3 - {a_1}^3a_4x^5y^3 - {a_1}^3a_4x^4y^4 - 3\,{a_1}^2a_2a_3x^4y^4 - 5\,a_3{a_2}^2x^4y^4 - 15\,a_1a_6x^4y^4 - 4\,a_4a_1a_2x^4y^4 - {a_1}^4a_3x^4y^4 + a_1a_2{}^3x^4y^4 + 5\,{a_3}^2a_1x^4y^4 + 19\,a_4a_3x^4y^4 - 2\,a_4a_1a_2x^3y^5 - 15\,a_1a_6x^3y^5 - {a_1}^4a_3x^3y^5 - {a_1}^3a_4x^3y^5 - 3\,{a_1}^2a_2a_3x^3y^5 + 12\,a_4a_3x^3y^5 - 2\,a_3{a_2}^2x^3y^5 + 4\,{a_3}^2a_1x^3y^5 - 12\,a_1a_6x^2y^6 - a_4a_1a_2x^2y^6 - {a_1}^3a_4x^2y^6 - 2\,{a_1}^2a_2a_3x^2y^6 - {a_3}^2a_1x^2y^6 - {a_1}^4a_3x^2y^6 - 2\,{a_1}^4a_3xy^7 - 2\,{a_1}^3a_4xy^7 - 6\,a_1a_6xy^7 - 6\,{a_3}^2a_1xy^7 - 6\,{a_1}^2a_2a_3xy^7 - 4\,a_4a_3xy^7 - 4\,a_4a_1a_2xy^7 - 2\,a_3{a_2}^2xy^7$$

$$-2\,{a_4}^2x^8y - 12\,a_3a_1a_4x^8y - 2\,{a_1}^4a_4x^8y - 6\,a_2a_6x^8y - 6\,{a_1}^2a_2a_4x^8y - 8\,a_3{a_1}^3a_2x^8y - 6\,{a_3}^2a_2x^8y - 6\,{a_2}^2a_3a_1x^8y - 9\,a_6{a_1}^2x^8y - 2\,a_4{a_2}^2x^8y - 12\,{a_3}^2{a_1}^2x^8y - 2\,a_3{a_1}^5x^8y - 2\,{a_1}^2a_2a_4x^7y^2 - 12\,a_2a_6x^7y^2 - {a_2}^2a_3a_1x^7y^2 - 3\,a_3{a_1}^3a_2x^7y^2 - 2\,a_3a_1a_4x^7y^2 - a_3{a_1}^5x^7y^2 - 3\,{a_3}^2{a_1}^2x^7y^2 - 15\,a_6{a_1}^2x^7y^2 - {a_1}^4a_4x^7y^2 + 4\,{a_3}^2a_2x^6y^3 - 4\,a_3a_1{}^3a_2x^6y^3 - 2\,a_4{a_2}^2x^6y^3 - a_3{a_1}^5x^6y^3 + 3\,{a_3}^2{a_1}^2x^6y^3 - 3\,{a_1}^2a_2a_4x^6y^3 - 19\,a_6{a_1}^2x^6y^3 - 13\,a_2a_6x^6y^3 + 8\,{a_4}^2x^6y^3 - {a_1}^4a_4x^6y^3 - 4\,{a_2}^2a_3a_1x^6y^3 + 12\,a_3a_1a_4x^6y^3 - 3\,{a_1}^2a_2a_4x^5y^4 - {a_3}^2a_2x^5y^4 - 8\,a_4{a_2}^2x^5y^4 - 4\,a_3{a_1}^3a_2x^5y^4 - 21\,a_6{a_1}^2x^5y^4 - a_3{a_1}^5x^5y^4 - {a_1}^4a_4x^5y^4 - 3\,{a_2}^2a_3a_1x^5y^4 + 5\,{a_3}^2{a_1}^2x^5y^4 + 16\,{a_4}^2x^5y^4 + 17\,a_3a_1a_4x^5y^4 + {a_2}^4x^5y^4 - 9\,a_2a_6x^5y^4 - 3\,{a_2}^2a_3a_1x^4y^5 - {a_3}^2a_2x^4y^5 + 16\,{a_4}^2x^4y^5 + 17\,a_3a_1a_4x^4y^5 + 5\,{a_3}^2{a_1}^2x^4y^5 - 8\,a_4{a_2}^2x^4y^5 - 21\,a_6{a_1}^2x^4y^5 - a_3{a_1}^5x^4y^5 - {a_1}^4a_4x^4y^5 - 3\,{a_1}^2a_2a_4x^4y^5 - 4\,a_3{a_1}^3a_2x^4y^5 - 9\,a_2a_6x^4y^5 + {a_2}^4x^4y^5 - 19\,a_6{a_1}^2x^3y^6 + 3\,{a_3}^2{a_1}^2x^3y^6 - 2\,a_4{a_2}^2x^3y^6 + 12\,a_3a_1a_4x^3y^6 - 4\,a_3{a_1}^3a_2x^3y^6 - 4\,{a_2}^2a_3a_1x^3y^6 - a_3{a_1}^5x^3y^6 - 3\,{a_1}^2a_2a_4x^3y^6 + 4\,{a_3}^2a_2x^3y^6 - 13\,a_2a_6x^3y^6 - {a_1}^4a_4x^3y^6 + 8\,{a_4}^2x^3y^6 - a_3{a_1}^5x^2y^7 - 12\,a_2a_6x^2y^7 - 2\,{a_1}^2a_2a_4x^2y^7 - 2\,a_3a_1a_4x^2y^7 - 15\,a_6{a_1}^2x^2y^7 - 3\,a_3{a_1}^3a_2x^2y^7 - {a_2}^2a_3a_1x^2y^7 - {a_1}^4a_4x^2y^7 - 3\,{a_3}^2{a_1}^2x^2y^7 - 6\,a_2a_6xy^8 - 2\,a_4{a_2}^2xy^8 - 9\,a_6{a_1}^2xy^8 - 6\,{a_3}^2a_2xy^8 - 2\,{a_4}^2xy^8 - 8\,a_3{a_1}^3a_2xy^8 - 12\,a_3a_1a_4xy^8 - 2\,a_3{a_1}^5xy^8 - 2\,{a_1}^4a_4xy^8 - 12\,{a_3}^2{a_1}^2xy^8 - 6\,{a_2}^2a_3a_1xy^8 - 6\,{a_1}^2a_2a_4xy^8$$

$$-24\,a_3{a_1}^2a_4x^9y - 2\,{a_1}^6a_3x^9y - 24\,{a_3}^2{a_1}^2a_2x^9y - 18\,a_6a_1a_2x^9y - 12\,a_4a_3a_2x^9y - 6\,a_1a_4{a_2}^2x^9y - 6\,{a_4}^2a_1x^9y - 2\,{a_1}^5a_4x^9y - 2\,{a_2}^3a_3x^9y - 8\,{a_1}^3a_4a_2x^9y - 20\,{a_3}^2{a_1}^3x^9y - 12\,{a_1}^2a_3{a_2}^2x^9y - 4\,{a_3}^3x^9y - 10\,a_3{a_1}^4a_2x^9y - 12\,a_6{a_1}^3x^9y - 8\,a_6a_3x^9y - 3\,{a_3}^2a_1a_2x^8y^2 - {a_4}^2a_1x^8y^2 - 9\,a_6a_3x^8y^2 - 3\,{a_1}^2a_3{a_2}^2x^8y^2 - {a_1}^5a_4x^8y^2 - {a_1}^6a_3x^8y^2 - 6\,{a_3}^2{a_1}^3x^8y^2 - 18\,a_6{a_1}^3x^8y^2 - a_1a_4{a_2}^2x^8y^2 - 3\,{a_1}^3a_4a_2x^8y^2 - 30\,a_6a_1a_2x^8y^2 - 6\,a_3{a_1}^2a_4x^8y^2 - 4\,a_3{a_1}^4a_2x^8y^2 - 4\,a_1a_4{a_2}^2x^7y^3 - 5\,a_3{a_1}^4a_2x^7y^3 + 4\,{a_3}^3x^7y^3 - 2\,{a_2}^3a_3x^7y^3 - {a_1}^6a_3x^7y^3 + 8\,{a_4}^2a_1x^7y^3 + 12\,a_6a_3x^7y^3 + 10\,a_3a_1{}^2a_4x^7y^3 - 4\,a_1{}^3a_4a_2x^7y^3 - 7\,a_1{}^2a_3a_2{}^2x^7y^3 - 23\,a_6{a_1}^3x^7y^3 + 6\,{a_3}^2a_1a_2x^7y^3 - 38\,a_6a_1a_2x^7y^3 - {a_1}^5a_4x^7y^3 + {a_3}^2{a_1}^3x^7y^3 + 12\,a_4a_3a_2x^7y^3 - a_4a_3a_2x^6y^4 + 51\,a_6a_3x^6y^4 - {a_3}^3x^6y^4 + 12\,{a_4}^2a_1x^6y^4 - 5\,a_3{a_1}^4a_2x^6y^4 - 4\,{a_1}^3a_4a_2x^6y^4 - {a_1}^5a_4x^6y^4 - 6\,{a_1}^2a_3{a_2}^2x^6y^4 - 26\,a_6{a_1}^3x^6y^4 - 44\,a_6a_1a_2x^6y^4 + 4\,{a_3}^2{a_1}^3x^6y^4 + 4\,{a_3}^2a_1a_2x^6y^4 - 3\,a_1a_4{a_2}^2x^6y^4 + 17\,a_3{a_1}^2a_4x^6y^4 - a_1{}^6a_3x^6y^4 - a_1{}^5a_4x^5y^5 + 5\,a_3{}^2a_1a_2x^5y^5 - 14\,a_4a_3a_2x^5y^5 + 19\,a_3a_1{}^2a_4x^5y^5 - 6\,a_1{}^2a_3a_2{}^2x^5y^5 - a_1a_2{}^4x^5y^5 + 4\,a_2{}^3a_3x^5y^5 - 27\,a_6a_1{}^3x^5y^5 + 72\,a_6a_3x^5y^5 + 5\,a_3{}^2a_1{}^3x^5y^5 - a_1{}^6a_3x^5y^5 - 5\,a_3a_1{}^4a_2x^5y^5 - 4\,a_1{}^3a_4a_2x^5y^5 - 48\,a_6a_1a_2x^5y^5 - 6\,a_3{}^3x^5y^5 + 12\,a_4{}^2a_1x^5y^5 - 3\,a_1a_4a_2{}^2x^4y^6 + 4\,a_3{}^2a_1a_2x^4y^6 - 5\,a_3a_1{}^4a_2x^4y^6 + 17\,a_3a_1{}^2a_4x^4y^6 - 4\,a_1{}^3a_4a_2x^4y^6 + 51\,a_6a_3x^4y^6 - a_3{}^3x^4y^6 - 44\,a_6a_1a_2x^4y^6 - 6\,a_1{}^2a_3a_2{}^2x^4y^6 + 4\,a_3{}^2a_1{}^3x^4y^6 - a_1{}^5a_4x^4y^6 - a_1{}^6a_3x^4y^6 - 26\,a_6a_1{}^3x^4y^6 - a_4a_3a_2x^4y^6 + 12\,a_4{}^2a_1x^4y^6 + 4\,a_3{}^3x^3y^7 + 10\,a_3a_1{}^2a_4x^3y^7 + 8\,a_4{}^2a_1x^3y^7 + 6\,a_3{}^2a_1a_2x^3y^7 - 23\,a_6a_1{}^3x^3y^7 - 7\,a_1{}^2a_3a_2{}^2x^3y^7 - 4\,a_1a_4a_2{}^2x^3y^7 - 5\,a_3a_1{}^4a_2x^3y^7 + 12\,a_6a_3x^3y^7 - 4\,a_1{}^3a_4a_2x^3y^7 - 38\,a_6a_1a_2x^3y^7 - 2\,a_2{}^3a_3x^3y^7 + a_3{}^2a_1{}^3x^3y^7 - a_1{}^6a_3x^3y^7 + 12\,a_4a_3a_2x^3y^7 - a_1{}^5a_4x^3y^7 - 4\,a_3a_1{}^4a_2x^2y^8 - 3\,a_1{}^2a_3a_2{}^2x^2y^8 - 3\,a_1{}^3a_4a_2x^2y^8 - 9\,a_6a_3x^2y^8 - a_4{}^2a_1x^2y^8 - 30\,a_6a_1a_2x^2y^8 - a_1{}^5a_4x^2y^8 - 6\,a_3a_1{}^2a_4x^2y^8 - 3\,a_3{}^2a_1a_2x^2y^8 - a_1a_4a_2{}^2x^2y^8 - 18\,a_6a_1{}^3x^2y^8 - a_1{}^6a_3x^2y^8 - 6\,a_3{}^2a_1{}^3x^2y^8 - 24\,a_3a_1{}^2a_4xy^9 - 12\,a_1{}^2a_3a_2{}^2xy^9 - 24\,a_3{}^2a_1a_2xy^9 - 2\,a_2{}^3a_3xy^9 - 8\,a_6a_3xy^9 - 20\,a_3{}^2a_1{}^3xy^9 - 12\,a_4a_3a_2xy^9 - 6\,a_1a_4a_2{}^2xy^9 - 18\,a_6a_1a_2xy^9 - 6\,a_4{}^2a_1xy^9 - 2\,a_1{}^6a_3xy^9 - 4\,a_3{}^3xy^9 - 2\,a_1{}^5a_4xy^9 - 10\,a_3a_1{}^4a_2xy^9 - 8\,a_1{}^3a_4a_2xy^9 - 12\,a_6a_1{}^3xy^9$$

$$-10\,{a_1}^4a_2a_4x^{10}y - 36\,a_6{a_1}^2a_2x^{10}y - 12\,{a_2}^2{a_3}^2x^{10}y - 2\,{a_1}^6a_4x^{10}y - 32\,a_3a_1a_6x^{10}y - 12\,a_3{a_1}^5a_2x^{10}y - 6\,a_2{a_4}^2x^{10}y - 40\,a_3{a_1}^3a_4x^{10}y - 2\,a_3{a_1}^7x^{10}y - 9\,a_6{a_2}^2x^{10}y - 60\,{a_3}^2{a_1}^2a_2x^{10}y - 12\,{a_1}^2a_4{a_2}^2x^{10}y - 30\,{a_3}^2{a_1}^4x^{10}y - 48\,a_3a_1a_2a_4x^{10}y - 20\,{a_1}^3a_3{a_2}^2x^{10}y - 12\,{a_1}^2{a_4}^2x^{10}y - 8\,a_6a_4x^{10}y - 12\,{a_3}^2a_4x^{10}y - 20\,{a_3}^3a_1x^{10}y - 8\,{a_2}^3a_3a_1x^{10}y - 2\,{a_2}^3a_4x^{10}y - 15\,{a_1}^4a_6x^{10}y - 21\,{a_1}^4a_6x^9y^2 - 3\,{a_1}^2a_4{a_2}^2x^9y^2 - 5\,a_3{a_1}^5a_2x^9y^2 - 12\,a_3{a_1}^3a_4x^9y^2 - a_3{a_1}^7x^9y^2 - 10\,a_6a_4x^9y^2 - 34\,a_3a_1a_6x^9y^2 - 15\,a_6{a_2}^2x^9y^2 - {a_1}^6a_4x^9y^2 - 10\,{a_3}^2{a_1}^4x^9y^2 - 54\,a_6{a_1}^2a_2x^9y^2 - 4\,{a_1}^4a_2a_4x^9y^2 - 3\,{a_1}^2{a_4}^2x^9y^2 - 12\,{a_3}^2{a_1}^2a_2x^9y^2 - 6\,a_3a_1a_2a_4x^9y^2 - 2\,{a_3}^3a_1x^9y^2 - 6\,{a_1}^3a_3{a_2}^2x^9y^2 - {a_2}^3a_3a_1x^9y^2 + 16\,{a_3}^2a_4x^8y^3 - {a_1}^6a_4x^8y^3 - a_3{a_1}^7x^8y^3 + 12\,a_6a_4x^8y^3 + 8\,a_2{a_4}^2x^8y^3 - 2\,{a_2}^3a_4x^8y^3 - 20\,a_6{a_2}^2x^8y^3 + 3\,{a_3}^2{a_1}^2a_2x^8y^3 - 6\,{a_2}^3a_3a_1x^8y^3 - 27\,{a_1}^4a_6x^8y^3 - 71\,a_6{a_1}^2a_2x^8y^3 + 6\,a_3{a_1}^3a_4x^8y^3 + 12\,{a_3}^3a_1x^8y^3 + 2\,{a_2}^2{a_3}^2x^8y^3 + 7\,{a_1}^2{a_4}^2x^8y^3 - 2\,{a_3}^2{a_1}^4x^8y^3 - 6\,a_3a_1{}^5a_2x^8y^3 - 11\,{a_1}^3a_3{a_2}^2x^8y^3 - 5\,{a_1}^4a_2a_4x^8y^3 - 7\,{a_1}^2a_4{a_2}^2x^8y^3 + 20\,a_3a_1a_2a_4x^8y^3 + 9\,a_3a_1a_6x^8y^3 - {a_2}^2{a_3}^2x^7y^4 - {a_1}^6a_4x^7y^4 + 12\,{a_1}^2{a_4}^2x^7y^4 - 2\,{a_3}^2a_4x^7y^4 + 2\,{a_3}^2{a_1}^4x^7y^4 - a_3{a_1}^7x^7y^4 + 6\,{a_3}^2{a_1}^2a_2x^7y^4 - 6\,{a_1}^2a_4{a_2}^2x^7y^4 - 10\,{a_1}^3a_3{a_2}^2x^7y^4 - 5\,{a_1}^4a_2a_4x^7y^4 + 15\,a_3{a_1}^3a_4x^7y^4 - 28\,a_6{a_2}^2x^7y^4 + 3\,{a_3}^3a_1x^7y^4 - 3\,{a_2}^3a_3a_1x^7y^4 + 16\,a_3a_1a_2a_4x^7y^4 - 6\,a_3a_1{}^5a_2x^7y^4 - 31\,{a_1}^4a_6x^7y^4 - 83\,a_6{a_1}^2a_2x^7y^4 + 60\,a_6a_4x^7y^4 + 75\,a_3a_1a_6x^7y^4 - 38\,{a_3}^2a_4x^6y^5 + 4\,{a_3}^2{a_1}^4x^6y^5 + 14\,{a_1}^2{a_4}^2x^6y^5 + 19\,a_3{a_1}^3a_4x^6y^5 + 10\,{a_3}^2{a_1}^2a_2x^6y^5 + 117\,a_3a_1a_6x^6y^5 - 4\,{a_2}^3a_3a_1x^6y^5 - 6\,{a_1}^2a_4{a_2}^2x^6y^5 - {a_2}^5x^6y^5 - 16\,a_2{a_4}^2x^6y^5 + 10\,{a_2}^2{a_3}^2x^6y^5 -$$

$$5\,a_1^4a_2a_4x^6y^5 - 33\,a_1^4a_6x^6y^5 + 102\,a_6a_4x^6y^5 - 38\,a_6a_2^2x^6y^5 - a_3a_1^7x^6y^5 + 17\,a_3a_1a_2a_4x^6y^5 + 8\,a_2^3a_4x^6y^5 - 6\,a_3a_1^5a_2x^6y^5 - 89\,a_6a_1^2a_2x^6y^5 - 10\,a_1^3a_3a_2^2x^6y^5 - 9\,a_3^3a_1x^6y^5 - a_1^6a_4x^6y^5 - 6\,a_1^2a_4a_2^2x^5y^6 - 10\,a_1^3a_3a_2^2x^5y^6 - 5\,a_1^4a_2a_4x^5y^6 + 102\,a_6a_4x^5y^6 + 10\,a_2^2a_3^2x^5y^6 + 117\,a_3a_1a_6x^5y^6 + 4\,a_3^2a_1^4x^5y^6 - 4\,a_2^3a_3a_1x^5y^6 - 6\,a_3a_1^5a_2x^5y^6 - 89\,a_6a_1^2a_2x^5y^6 + 19\,a_3a_1^3a_4x^5y^6 - 9\,a_3^3a_1x^5y^6 + 17\,a_3a_1a_2a_4x^5y^6 - 38\,a_6a_2^2x^5y^6 + 14\,a_1^2a_4^2x^5y^6 - 33\,a_1^4a_6x^5y^6 - 16\,a_2a_4^2x^5y^6 - a_2^5x^5y^6 - a_3a_1^7x^5y^6 + 10\,a_3^2a_1^2a_2x^5y^6 - a_1^6a_4x^5y^6 - 38\,a_3^2a_4x^5y^6 + 8\,a_2^3a_4x^5y^6 - 10\,a_1^3a_3a_2^2x^4y^7 + 15\,a_3a_1^3a_4x^4y^7 + 6\,a_3^2a_1^2a_2x^4y^7 + 75\,a_3a_1a_6x^4y^7 - 83\,a_6a_1^2a_2x^4y^7 + 12\,a_1^2a_4^2x^4y^7 - a_3a_1^7x^4y^7 + 16\,a_3a_1a_2a_4x^4y^7 - 28\,a_6a_2^2x^4y^7 - 6\,a_3a_1^5a_2x^4y^7 - 31\,a_1^4a_6x^4y^7 - 3\,a_2^3a_3a_1x^4y^7 - 6\,a_1^2a_4a_2^2x^4y^7 + 60\,a_6a_4x^4y^7 + 2\,a_3^2a_1^4x^4y^7 - 2\,a_3^2a_4x^4y^7 - a_2^2a_3^2x^4y^7 - a_1^6a_4x^4y^7 + 3\,a_3^3a_1x^4y^7 - 5\,a_1^4a_2a_4x^4y^7 + 8\,a_2a_4^2x^3y^8 - 71\,a_6a_1^2a_2x^3y^8 - a_1^6a_4x^3y^8 + 3\,a_3^2a_1^2a_2x^3y^8 - 11\,a_1^3a_3a_2^2x^3y^8 + 2\,a_2^2a_3^2x^3y^8 + 9\,a_3a_1a_6x^3y^8 + 7\,a_1^2a_4^2x^3y^8 - 2\,a_2^3a_4x^3y^8 + 16\,a_3^2a_4x^3y^8 - 2\,a_3^2a_1^4x^3y^8 - 27\,a_1^4a_6x^3y^8 + 20\,a_3a_1a_2a_4x^3y^8 + 12\,a_6a_4x^3y^8 - 7\,a_1^2a_4a_2^2x^3y^8 + 6\,a_3a_1^3a_4x^3y^8 - a_3a_1^7x^3y^8 - 20\,a_6a_2^2x^3y^8 - 5\,a_1^4a_2a_4x^3y^8 - 6\,a_3a_1^5a_2x^3y^8 + 12\,a_3^3a_1x^3y^8 - 6\,a_2^3a_3a_1x^3y^8 - 5\,a_3a_1^5a_2x^2y^9 - 15\,a_6a_2^2x^2y^9 - 3\,a_1^2a_4a_2^2x^2y^9 - 6\,a_1^3a_3a_2^2x^2y^9 - 4\,a_1^4a_2a_4x^2y^9 - 10\,a_3^2a_1^4x^2y^9 - 21\,a_1^4a_6x^2y^9 - 12\,a_3a_1^3a_4x^2y^9 - 12\,a_3^2a_1^2a_2x^2y^9 - a_1^6a_4x^2y^9 - 34\,a_3a_1a_6x^2y^9 - 10\,a_6a_4x^2y^9 - 6\,a_3a_1a_2a_4x^2y^9 - a_2^3a_3a_1x^2y^9 - 2\,a_3^3a_1x^2y^9 - 3\,a_1^2a_4^2x^2y^9 - 54\,a_6a_1^2a_2x^2y^9 - a_3a_1^7x^2y^9 - 8\,a_6a_4xy^{10} - 12\,a_2^2a_3^2xy^{10} - 12\,a_1^2a_4a_2^2xy^{10} - 2\,a_2^3a_4xy^{10} - 12\,a_1^2a_4^2xy^{10} - 20\,a_3^3a_1xy^{10} - 2\,a_1^6a_4xy^{10} - 2\,a_3a_1^7xy^{10} - 10\,a_1^4a_2a_4xy^{10} - 12\,a_3^2a_4xy^{10} - 9\,a_6a_2^2xy^{10} - 12\,a_3a_1^5a_2xy^{10} - 48\,a_3a_1a_2a_4xy^{10} - 6\,a_2a_4^2xy^{10} - 8\,a_2^3a_3a_1xy^{10} - 40\,a_3a_1^3a_4xy^{10} - 32\,a_3a_1a_6xy^{10} - 60\,a_3^2a_1^2a_2xy^{10} - 15\,a_1^4a_6xy^{10} - 30\,a_3^2a_1^4xy^{10} - 36\,a_6a_1^2a_2xy^{10} - 20\,a_1^3a_3a_2^2xy^{10} - 12\,a_1^5a_4a_2x^{11}y - 32\,a_4a_1a_6x^{11}y - 20\,a_3^3a_2x^{11}y - 12\,a_4^2a_3x^{11}y - 120\,a_3^2a_1^3a_2x^{11}y - 18\,a_1^5a_6x^{11}y - 30\,a_1^4a_3a_2^2x^{11}y - 8\,a_2^3a_4a_1x^{11}y - 60\,a_3^2a_1a_2^2x^{11}y - 120\,a_3a_1^2a_4a_2x^{11}y - 24\,a_2a_4^2a_1x^{11}y - 24\,a_2^2a_4a_3x^{11}y - 60\,a_3^3a_1^2x^{11}y - 36\,a_1a_6a_2^2x^{11}y - 20\,a_1^3a_4^2x^{11}y - 2\,a_3a_1^8x^{11}y - 32\,a_6a_3a_2x^{11}y - 2\,a_2^4a_3x^{11}y - 60\,a_1^4a_3a_4x^{11}y - 14\,a_3a_1^6a_2x^{11}y - 2\,a_1^7a_4x^{11}y - 20\,a_1^2a_2^3a_3x^{11}y - 42\,a_3^2a_1^5x^{11}y - 60\,a_1^3a_2a_6x^{11}y - 60\,a_3^2a_1a_4x^{11}y - 20\,a_1^3a_4a_2^2x^{11}y - 80\,a_6a_3a_1^2x^{11}y - 15\,a_3^2a_1^5x^{10}y^2 - 33\,a_6a_3a_2x^{10}y^2 - 30\,a_3^2a_1^3a_2x^{10}y^2 - 54\,a_1a_6a_2^2x^{10}y^2 - 4\,a_1^2a_2^3a_3x^{10}y^2 - 6\,a_3^2a_1a_2^2x^{10}y^2 - a_3a_1^8x^{10}y^2 - 6\,a_3a_1^6a_2x^{10}y^2 - a_1^7a_4x^{10}y^2 - 20\,a_1^4a_3a_4x^{10}y^2 - 37\,a_4a_1a_6x^{10}y^2 - 5\,a_1^5a_4a_2x^{10}y^2 - 24\,a_3a_1^2a_4a_2x^{10}y^2 - 6\,a_1^3a_4^2x^{10}y^2 - 6\,a_3^2a_1a_4x^{10}y^2 - 84\,a_1^3a_2a_6x^{10}y^2 - 10\,a_1^4a_3a_2^2x^{10}y^2 - a_2^3a_4a_1x^{10}y^2 - 10\,a_3^3a_1^2x^{10}y^2 - 6\,a_1^3a_4a_2^2x^{10}y^2 - 3\,a_2a_4^2a_1x^{10}y^2 - 24\,a_1^5a_6x^{10}y^2 - 82\,a_6a_3a_1^2x^{10}y^2 - 75\,a_1a_6a_2^2x^9y^3 + 6\,a_4a_1a_6x^9y^3 + 22\,a_3^3a_1^2x^9y^3 + 14\,a_2a_4^2a_1x^9y^3 - 16\,a_1^4a_3a_2^2x^9y^3 - a_1^7a_4x^9y^3 + 8\,a_2^2a_4a_3x^9y^3 - 6\,a_2^3a_4a_1x^9y^3 - 6\,a_1^5a_4a_2x^9y^3 - 6\,a_3^2a_1^5x^9y^3 + 5\,a_1^3a_4^2x^9y^3 - a_3a_1^8x^9y^3 - 7\,a_3a_1^6a_2x^9y^3 - 31\,a_1^5a_6x^9y^3 - 2\,a_2^4a_3x^9y^3 - 112\,a_1^3a_2a_6x^9y^3 - 18\,a_6a_3a_1^2x^9y^3 - 8\,a_3^2a_1^3a_2x^9y^3 + 12\,a_6a_3a_2x^9y^3 + 18\,a_3a_1^2a_4a_2x^9y^3 + 12\,a_3^3a_2x^9y^3 - 13\,a_1^2a_2^3a_3x^9y^3 + 48\,a_3^2a_1a_4x^9y^3 + 20\,a_4^2a_3x^9y^3 - 11\,a_1^3a_4a_2^2x^9y^3 + 2\,a_3^2a_1^3a_2x^8y^4 - 7\,a_3a_1^6a_2x^8y^4 - 6\,a_1^5a_4a_2x^8y^4 - a_4^2a_3x^8y^4 + 11\,a_1^4a_3a_4x^8y^4 - 10\,a_1^3a_4a_2^2x^8y^4 - 15\,a_1^4a_3a_2^2x^8y^4 + 27\,a_3a_1^2a_4a_2x^8y^4 - 93\,a_1a_6a_2^2x^8y^4 + 11\,a_1^3a_4^2x^8y^4 - 3\,a_3^3a_2x^8y^4 - a_2^2a_4a_3x^8y^4 + 66\,a_6a_3a_2x^8y^4 - a_3a_1^8x^8y^4 - 9\,a_1^2a_2^3a_3x^8y^4 + 12\,a_2a_4^2a_1x^8y^4 - 36\,a_1^5a_6x^8y^4 + 78\,a_4a_1a_6x^8y^4 + 18\,a_3^2a_1a_4x^8y^4 - 3\,a_2^3a_4a_1x^8y^4 - 132\,a_1^3a_2a_6x^8y^4 + 12\,a_3^3a_1^2x^8y^4 - a_3^2a_1^5x^8y^4 + 78\,a_6a_3a_1^2x^8y^4 - a_1^7a_4x^8y^4 - a_1^7a_4x^7y^5 - 6\,a_1^5a_4a_2x^7y^5 - a_3a_1^8x^7y^5 - 102\,a_1a_6a_2^2x^7y^5 - 10\,a_1^2a_2^3a_3x^7y^5 + 14\,a_1^3a_4^2x^7y^5 - 48\,a_3^2a_1a_4x^7y^5 + 78\,a_6a_3a_2x^7y^5 - 4\,a_2^3a_4a_1x^7y^5 - 15\,a_1^4a_3a_2^2x^7y^5 - 7\,a_3a_1^6a_2x^7y^5 - 2\,a_2^4a_3x^7y^5 - 64\,a_4^2a_3x^7y^5 + 11\,a_3^2a_1^3a_2x^7y^5 + 153\,a_6a_3a_1^2x^7y^5 + 2\,a_3^2a_1^5x^7y^5 + 17\,a_1^4a_3a_4x^7y^5 - 10\,a_1^3a_4a_2^2x^7y^5 + 132\,a_4a_1a_6x^7y^5 + 36\,a_3a_1^2a_4a_2x^7y^5 - 4\,a_3^3a_2x^7y^5 + 26\,a_2^2a_4a_3x^7y^5 - 7\,a_3^3a_1^2x^7y^5 + 12\,a_2a_4^2a_1x^7y^5 - 39\,a_1^5a_6x^7y^5 + 15\,a_3^2a_1a_2^2x^7y^5 - 144\,a_1^3a_2a_6x^7y^5 - 6\,a_1^5a_4a_2x^6y^6 + 40\,a_3a_1^2a_4a_2x^6y^6 - 100\,a_4^2a_3x^6y^6 - a_3a_1^8x^6y^6 - 148\,a_1^3a_2a_6x^6y^6 + a_1a_2^5x^6y^6 - a_1^7a_4x^6y^6 + 150\,a_4a_1a_6x^6y^6 + 15\,a_1^3a_4^2x^6y^6 + 3\,a_3^2a_1^5x^6y^6 + 70\,a_6a_3a_2x^6y^6 - 102\,a_1a_6a_2^2x^6y^6 - 15\,a_1^4a_3a_2^2x^6y^6 - 15\,a_3^3a_1^2x^6y^6 - 10\,a_1^2a_2^3a_3x^6y^6 - 10\,a_1^3a_4a_2^2x^6y^6 + 181\,a_6a_3a_1^2x^6y^6 - 77\,a_3^2a_1a_4x^6y^6 - 7\,a_3a_1^6a_2x^6y^6 + 5\,a_3^3a_2x^6y^6 + 16\,a_2a_4^2a_1x^6y^6 - 7\,a_2^4a_3x^6y^6 - 40\,a_1^5a_6x^6y^6 + 14\,a_3^2a_1^3a_2x^6y^6 + 52\,a_2^2a_4a_3x^6y^6 + 19\,a_1^4a_3a_4x^6y^6 -$$

$$8\,a_2^3a_4a_1x^6y^6 + 17\,a_3^2a_1a_2^2x^6y^6 - 64\,a_4^2a_3x^5y^7 - 102\,a_1a_6a_2^2x^5y^7 - 144\,a_1^3a_2a_6x^5y^7 - 7\,a_3^3a_1^2x^5y^7 - 15\,a_1^4a_3a_2^2x^5y^7 + 14\,a_1^3a_4^2x^5y^7 - 10\,a_1^2a_2^3a_3x^5y^7 - 48\,a_3^2a_1a_4x^5y^7 - 4\,a_3^3a_2x^5y^7 + 12\,a_2a_4^2a_1x^5y^7 + 132\,a_4a_1a_6x^5y^7 + 11\,a_3^2a_1^3a_2x^5y^7 - a_1^7a_4x^5y^7 - 7\,a_3a_1^6a_2x^5y^7 - 6\,a_1^5a_4a_2x^5y^7 + 36\,a_3a_1^2a_4a_2x^5y^7 - a_3a_1^8x^5y^7 + 17\,a_1^4a_3a_4x^5y^7 - 39\,a_1^5a_6x^5y^7 - 2\,a_2^4a_3x^5y^7 - 10\,a_1^3a_4a_2^2x^5y^7 + 26\,a_2^2a_4a_3x^5y^7 + 2\,a_3^2a_1^5x^5y^7 + 153\,a_6a_3a_1^2x^5y^7 - 4\,a_2^3a_4a_1x^5y^7 + 78\,a_6a_3a_2x^5y^7 + 15\,a_3^2a_1a_2^2x^5y^7 - 15\,a_1^4a_3a_2^2x^4y^8 - 10\,a_1^3a_4a_2^2x^4y^8 - 7\,a_3a_1^6a_2x^4y^8 - 3\,a_3^3a_2x^4y^8 + 18\,a_3^2a_1a_4x^4y^8 + 78\,a_4a_1a_6x^4y^8 + 66\,a_6a_3a_2x^4y^8 + 27\,a_3a_1^2a_4a_2x^4y^8 - 3\,a_2^3a_4a_1x^4y^8 - 36\,a_1^5a_6x^4y^8 + 78\,a_6a_3a_1^2x^4y^8 - 132\,a_1^3a_2a_6x^4y^8 + 11\,a_1^4a_3a_4x^4y^8 + 12\,a_2a_4^2a_1x^4y^8 + 2\,a_3^2a_1^3a_2x^4y^8 - a_4^2a_3x^4y^8 - a_2^2a_4a_3x^4y^8 - 6\,a_1^5a_4a_2x^4y^8 + 12\,a_3^3a_1^2x^4y^8 - a_3a_1^8x^4y^8 - a_1^7a_4x^4y^8 - a_3^2a_1^5x^4y^8 + 11\,a_1^3a_4^2x^4y^8 - 9\,a_1^2a_2^3a_3x^4y^8 - 93\,a_1a_6a_2^2x^4y^8 - 6\,a_3^2a_1^5x^3y^9 + 18\,a_3a_1^2a_4a_2x^3y^9 + 20\,a_4^2a_3x^3y^9 + 14\,a_2a_4^2a_1x^3y^9 + 48\,a_3^2a_1a_4x^3y^9 + 12\,a_3^3a_2x^3y^9 - 2\,a_2^4a_3x^3y^9 + 6\,a_4a_1a_6x^3y^9 - 6\,a_1^5a_4a_2x^3y^9 - a_1^7a_4x^3y^9 - a_3a_1^8x^3y^9 - 7\,a_3a_1^6a_2x^3y^9 - 13\,a_1^2a_2^3a_3x^3y^9 + 12\,a_6a_3a_2x^3y^9 - 16\,a_1^4a_3a_2^2x^3y^9 - 8\,a_3^2a_1^3a_2x^3y^9 + 5\,a_1^3a_4^2x^3y^9 - 31\,a_1^5a_6x^3y^9 + 8\,a_2^2a_4a_3x^3y^9 - 75\,a_1a_6a_2^2x^3y^9 - 112\,a_1^3a_2a_6x^3y^9 - 18\,a_6a_3a_1^2x^3y^9 - 6\,a_2^3a_4a_1x^3y^9 - 11\,a_1^3a_4a_2^2x^3y^9 + 22\,a_3^3a_1^2x^3y^9 - 30\,a_3^2a_1^3a_2x^2y^{10} - 24\,a_1^5a_6x^2y^{10} - 82\,a_6a_3a_1^2x^2y^{10} - 33\,a_6a_3a_2x^2y^{10} - a_3a_1^8x^2y^{10} - a_1^7a_4x^2y^{10} - 20\,a_1^4a_3a_4x^2y^{10} - 10\,a_3^3a_1^2x^2y^{10} - 37\,a_4a_1a_6x^2y^{10} - 3\,a_2a_4^2a_1x^2y^{10} - 5\,a_1^5a_4a_2x^2y^{10} - 24\,a_3a_1^2a_4a_2x^2y^{10} - 4\,a_1^2a_2^3a_3x^2y^{10} - 6\,a_1^3a_4^2x^2y^{10} - 6\,a_1^3a_4a_2^2x^2y^{10} - 10\,a_1^4a_3a_2^2x^2y^{10} - a_2^3a_4a_1x^2y^{10} - 6\,a_3^2a_1a_2^2x^2y^{10} - 15\,a_3^2a_1^5x^2y^{10} - 6\,a_3a_1^6a_2x^2y^{10} - 54\,a_1a_6a_2^2x^2y^{10} - 84\,a_1^3a_2a_6x^2y^{10} - 6\,a_3^2a_1a_4x^2y^{10} - 24\,a_2a_4^2a_1xy^{11} - 2\,a_1^7a_4xy^{11} - 20\,a_3^3a_2xy^{11} - 14\,a_3a_1^6a_2xy^{11} - 24\,a_2^2a_4a_3xy^{11} - 30\,a_1^4a_3a_2^2xy^{11} - 60\,a_3^3a_1^2xy^{11} - 60\,a_1^3a_2a_6xy^{11} - 12\,a_4^2a_3xy^{11} - 2\,a_2^4a_3xy^{11} - 42\,a_3^2a_1^5xy^{11} - 20\,a_1^3a_4^2xy^{11} - 80\,a_6a_3a_1^2xy^{11} - 60\,a_1^4a_3a_4xy^{11} - 120\,a_3a_1^2a_4a_2xy^{11} - 18\,a_1^5a_6xy^{11} - 36\,a_1a_6a_2^2xy^{11} - 20\,a_1^2a_2^3a_3xy^{11} - 60\,a_3^2a_1a_2^2xy^{11} - 60\,a_3^2a_1a_4xy^{11} - 12\,a_1^5a_4a_2xy^{11} - 120\,a_3^2a_1^3a_2xy^{11} - 32\,a_4a_1a_6xy^{11} - 32\,a_6a_3a_2xy^{11} - 2\,a_3a_1^8xy^{11} - 8\,a_2^3a_4a_1xy^{11} - 20\,a_1^3a_4a_2^2xy^{11} - 42\,a_1^5a_3a_2^2x^{12}y - 40\,a_1^3a_3a_2^3x^{12}y - 21\,a_1^6a_6x^{12}y - 30\,a_1^4a_4a_2^2x^{12}y - 12\,a_2^2a_4^2x^{12}y - 120\,a_3^3a_1a_2x^{12}y - 2\,a_3a_1^9x^{12}y - 30\,a_1^4a_4^2x^{12}y - 2\,a_2^4a_4x^{12}y - 60\,a_1^2a_2a_4^2x^{12}y - 160\,a_3a_1^3a_6x^{12}y - 140\,a_3^3a_1^3x^{12}y - 4\,a_4^3x^{12}y - 180\,a_3^2a_1^2a_2^2x^{12}y - 56\,a_3^2a_1^6x^{12}y - 240\,a_3a_1^3a_4a_2x^{12}y - 120\,a_3a_1a_4a_2^2x^{12}y - 2\,a_1^8a_4x^{12}y - 80\,a_6a_1^2a_4x^{12}y - 32\,a_2a_6a_4x^{12}y - 12\,a_2^3a_6x^{12}y - 10\,a_1a_3a_2^4x^{12}y - 90\,a_1^4a_6a_2x^{12}y - 6\,a_6^2x^{12}y - 90\,a_1^2a_6a_2^2x^{12}y - 160\,a_6a_3a_1a_2x^{12}y - 180\,a_3^2a_4a_1^2x^{12}y - 25\,a_6a_3^2x^{12}y - 16\,a_3a_1^7a_2x^{12}y - 20\,a_1^2a_2^3a_4x^{12}y - 14\,a_1^6a_2a_4x^{12}y - 60\,a_3^2a_2a_4x^{12}y - 60\,a_3a_1a_4^2x^{12}y - 210\,a_1^4a_3^2a_2x^{12}y - 84\,a_3a_1^5a_4x^{12}y - 10\,a_3^4x^{12}y - 20\,a_3^2a_2^3x^{12}y - a_1^8a_4x^{11}y^2 - 160\,a_3a_1^3a_6x^{11}y^2 - 12\,a_1^2a_2a_4^2x^{11}y^2 - 160\,a_6a_3a_1a_2x^{11}y^2 - 18\,a_2^3a_6x^{11}y^2 - 9\,a_6^2x^{11}y^2 - a_1a_3a_2^4x^{11}y^2 - 60\,a_3a_1^3a_4a_2x^{11}y^2 - 18\,a_6a_3^2x^{11}y^2 - 6\,a_1^6a_2a_4x^{11}y^2 - 12\,a_3a_1a_4a_2^2x^{11}y^2 - 120\,a_1^4a_6a_2x^{11}y^2 - 10\,a_1^4a_4a_2^2x^{11}y^2 - 4\,a_1^2a_2^3a_4x^{11}y^2 - 30\,a_3^2a_4a_1^2x^{11}y^2 - 6\,a_3a_1a_4^2x^{11}y^2 - 7\,a_3a_1^7a_2x^{11}y^2 - 60\,a_1^4a_3^2a_2x^{11}y^2 - 10\,a_1^4a_4^2x^{11}y^2 - 30\,a_3a_1^5a_4x^{11}y^2 - 88\,a_6a_1^2a_4x^{11}y^2 - 36\,a_2a_6a_4x^{11}y^2 - 30\,a_3^3a_1^3x^{11}y^2 - 15\,a_1^5a_3a_2^2x^{11}y^2 - 30\,a_3^2a_1^2a_2^2x^{11}y^2 - 126\,a_1^2a_6a_2^2x^{11}y^2 - 27\,a_1^6a_6x^{11}y^2 - 10\,a_3^3a_1a_2x^{11}y^2 - 10\,a_1^3a_3a_2^3x^{11}y^2 - 21\,a_3^2a_1^6x^{11}y^2 - a_3a_1^9x^{11}y^2 - a_1^8a_4x^{10}y^3 - 2\,a_2^4a_4x^{10}y^3 - 11\,a_3^2a_1^6x^{10}y^3 - a_3a_1^9x^{10}y^3 - 7\,a_1^6a_2a_4x^{10}y^3 - 27\,a_2^3a_6x^{10}y^3 + 28\,a_6a_3^2x^{10}y^3 + 8\,a_2a_6a_4x^{10}y^3 - 161\,a_1^4a_6a_2x^{10}y^3 - 24\,a_1^3a_3a_2^3x^{10}y^3 - 31\,a_6a_3a_1a_2x^{10}y^3 + 15\,a_1^2a_2a_4^2x^{10}y^3 - 27\,a_6a_1^2a_4x^{10}y^3 + 6\,a_2^2a_4^2x^{10}y^3 + 8\,a_3^4x^{10}y^3 + 44\,a_3^3a_1a_2x^{10}y^3 + 2\,a_1^4a_4^2x^{10}y^3 + 8\,a_4^3x^{10}y^3 - 13\,a_1^2a_2^3a_4x^{10}y^3 + 12\,a_6^2x^{10}y^3 - 8\,a_3a_1^5a_4x^{10}y^3 - 18\,a_3^2a_1^2a_2^2x^{10}y^3 - 8\,a_1a_3a_2^4x^{10}y^3 + 12\,a_3a_1a_4a_2^2x^{10}y^3 - 2\,a_3^2a_2^3x^{10}y^3 - 30\,a_1^4a_3^2a_2x^{10}y^3 - 22\,a_1^5a_3a_2^2x^{10}y^3 + 48\,a_3^2a_2a_4x^{10}y^3 - 8\,a_3a_1^7a_2x^{10}y^3 - 78\,a_3a_1^3a_6x^{10}y^3 + 30\,a_3^3a_1^3x^{10}y^3 - 35\,a_1^6a_6x^{10}y^3 + 90\,a_3^2a_4a_1^2x^{10}y^3 + 60\,a_3a_1a_4^2x^{10}y^3 - 16\,a_1^4a_4a_2^2x^{10}y^3 - 177\,a_1^2a_6a_2^2x^{10}y^3 - 19\,a_1^3a_3a_2^3x^9y^4 + 26\,a_3a_1^3a_4a_2x^9y^4 - a_3^2a_2^3x^9y^4 - 3\,a_1a_3a_2^4x^9y^4 - 8\,a_3a_1^7a_2x^9y^4 + 60\,a_2a_6a_4x^9y^4 + 27\,a_3a_1a_4^2x^9y^4 + 69\,a_6a_1^2a_4x^9y^4 + 5\,a_3a_1^5a_4x^9y^4 + 75\,a_6^2x^9y^4 - 7\,a_1^6a_2a_4x^9y^4 + 9\,a_3a_1a_4a_2^2x^9y^4 + 139\,a_6a_3a_1a_2x^9y^4 - 15\,a_1^4a_4a_2^2x^9y^4 + 49\,a_3a_1^3a_6x^9y^4 - 11\,a_1^4a_3^2a_2x^9y^4 + 9\,a_1^4a_4^2x^9y^4 - 41\,a_1^6a_6x^9y^4 - 5\,a_3^2a_1^6x^9y^4 + 46\,a_6a_3^2x^9y^4 - 191\,a_1^4a_6a_2x^9y^4 +$$

$$21\,a_1^2a_2a_4^2x^9y^4 - 6\,a_3^2a_1^2a_2^2x^9y^4 - 215\,a_1^2a_6a_2^2x^9y^4 - 21\,a_1^5a_3a_2^2x^9y^4 + 60\,a_3^2a_4a_1^2x^9y^4 + 6\,a_3^3a_1a_2x^9y^4 - 9\,a_1^2a_2^3a_4x^9y^4 + 24\,a_3^3a_1^3x^9y^4 - 35\,a_2^3a_6x^9y^4 - a_3a_1^9x^9y^4 - 6\,a_3^2a_2a_4x^9y^4 - a_1^8a_4x^9y^4 - 2\,a_3^4x^9y^4 + 261\,a_6a_3a_1a_2x^8y^5 - 10\,a_1^2a_2^3a_4x^8y^5 - 34\,a_3^2a_2a_4x^8y^5 + 5\,a_1^4a_3^2a_2x^8y^5 - 75\,a_3a_1a_4^2x^8y^5 - a_3^2a_1^6x^8y^5 - 8\,a_3a_1^7a_2x^8y^5 - 34\,a_3^2a_4a_1^2x^8y^5 + 150\,a_6a_1^2a_4x^8y^5 + 162\,a_3a_1^3a_6x^8y^5 - 211\,a_1^4a_6a_2x^8y^5 - 6\,a_1a_3a_2^4x^8y^5 - 2\,a_2^4a_4x^8y^5 - 34\,a_2^3a_6x^8y^5 - 7\,a_1^6a_2a_4x^8y^5 - 239\,a_1^2a_6a_2^2x^8y^5 + 19\,a_3^2a_1^2a_2^2x^8y^5 + 60\,a_2a_6a_4x^8y^5 - 6\,a_3^4x^8y^5 + 13\,a_3a_1^5a_4x^8y^5 - 21\,a_1^5a_3a_2^2x^8y^5 + 10\,a_3^2a_2^3x^8y^5 - 45\,a_1^6a_6x^8y^5 + 13\,a_1^4a_4^2x^8y^5 - 9\,a_3^3a_1a_2x^8y^5 + 26\,a_1^2a_2a_4^2x^8y^5 - a_3a_1^9x^8y^5 + 16\,a_2^2a_4^2x^8y^5 + 47\,a_3a_1^3a_4a_2x^8y^5 - 20\,a_1^3a_3a_2^3x^8y^5 - a_1^8a_4x^8y^5 - 15\,a_1^4a_4a_2^2x^8y^5 + 162\,a_6^2x^8y^5 + 43\,a_3a_1a_4a_2^2x^8y^5 - 32\,a_4^3x^8y^5 - 36\,a_6a_3^2x^8y^5 + 227\,a_3a_1^3a_6x^7y^6 - 251\,a_1^2a_6a_2^2x^7y^6 - 21\,a_1^5a_3a_2^2x^7y^6 - 150\,a_6a_3^2x^7y^6 - 4\,a_3^3a_1a_2x^7y^6 - 4\,a_3^2a_2^3x^7y^6 + 59\,a_3a_1^3a_4a_2x^7y^6 + 57\,a_3a_1a_4a_2^2x^7y^6 + 16\,a_3^2a_2a_4x^7y^6 + 27\,a_3^2a_1^2a_2^2x^7y^6 + 6\,a_3^4x^7y^6 - 148\,a_3a_1a_4^2x^7y^6 + 30\,a_1^2a_2a_4^2x^7y^6 - 47\,a_1^6a_6x^7y^6 - 10\,a_1^2a_2^3a_4x^7y^6 - 99\,a_3^2a_4a_1^2x^7y^6 - 8\,a_3a_1^7a_2x^7y^6 + 48\,a_2^2a_4^2x^7y^6 - 17\,a_3^3a_1^3x^7y^6 + a_2^6x^7y^6 - 7\,a_1^6a_2a_4x^7y^6 + 329\,a_6a_3a_1a_2x^7y^6 - 26\,a_2^3a_6x^7y^6 + 17\,a_3a_1^5a_4x^7y^6 + 225\,a_6^2x^7y^6 - 5\,a_1a_3a_2^4x^7y^6 + 196\,a_6a_1^2a_4x^7y^6 + 15\,a_1^4a_4^2x^7y^6 + a_3^2a_1^6x^7y^6 + 28\,a_2a_6a_4x^7y^6 - 64\,a_4^3x^7y^6 - a_3a_1^9x^7y^6 + 13\,a_1^4a_3^2a_2x^7y^6 - 20\,a_1^3a_3a_2^3x^7y^6 - a_1^8a_4x^7y^6 - 12\,a_2^4a_4x^7y^6 - 15\,a_1^4a_4a_2^2x^7y^6 - 221\,a_1^4a_6a_2x^7y^6 - 148\,a_3a_1a_4^2x^6y^7 - a_1^8a_4x^6y^7 - 4\,a_3^3a_1a_2x^6y^7 + 57\,a_3a_1a_4a_2^2x^6y^7 + 13\,a_1^4a_3^2a_2x^6y^7 - a_3a_1^9x^6y^7 - 15\,a_1^4a_4a_2^2x^6y^7 + a_3^2a_1^6x^6y^7 + 27\,a_3^2a_1^2a_2^2x^6y^7 - 221\,a_1^4a_6a_2x^6y^7 + 196\,a_6a_1^2a_4x^6y^7 + 225\,a_6^2x^6y^7 + 28\,a_2a_6a_4x^6y^7 + 16\,a_3^2a_2a_4x^6y^7 - 5\,a_1a_3a_2^4x^6y^7 + 17\,a_3a_1^5a_4x^6y^7 + a_2^6x^6y^7 - 10\,a_1^2a_2^3a_4x^6y^7 - 20\,a_1^3a_3a_2^3x^6y^7 + 59\,a_3a_1^3a_4a_2x^6y^7 + 6\,a_3^4x^6y^7 - 64\,a_4^3x^6y^7 + 227\,a_3a_1^3a_6x^6y^7 - 17\,a_3^3a_1^3x^6y^7 + 329\,a_6a_3a_1a_2x^6y^7 + 30\,a_1^2a_2a_4^2x^6y^7 - 99\,a_3^2a_4a_1^2x^6y^7 + 15\,a_1^4a_4^2x^6y^7 - 251\,a_1^2a_6a_2^2x^6y^7 - 12\,a_2^4a_4x^6y^7 + 48\,a_2^2a_4^2x^6y^7 - 4\,a_3^2a_2^3x^6y^7 - 8\,a_3a_1^7a_2x^6y^7 - 7\,a_1^6a_2a_4x^6y^7 - 26\,a_2^3a_6x^6y^7 - 47\,a_1^6a_6x^6y^7 - 150\,a_6a_3^2x^6y^7 - 21\,a_1^5a_3a_2^2x^6y^7 - 34\,a_3^2a_4a_1^2x^5y^8 + 47\,a_3a_1^3a_4a_2x^5y^8 - a_3a_1^9x^5y^8 - 9\,a_3^3a_1a_2x^5y^8 - 10\,a_1^2a_2^3a_4x^5y^8 - a_1^8a_4x^5y^8 + 150\,a_6a_1^2a_4x^5y^8 - 211\,a_1^4a_6a_2x^5y^8 - 2\,a_2^4a_4x^5y^8 + 43\,a_3a_1a_4a_2^2x^5y^8 - 20\,a_1^3a_3a_2^3x^5y^8 + 261\,a_6a_3a_1a_2x^5y^8 - 34\,a_3^2a_2a_4x^5y^8 - 15\,a_1^4a_4a_2^2x^5y^8 - 8\,a_3a_1^7a_2x^5y^8 + 162\,a_3a_1^3a_6x^5y^8 - 34\,a_2^3a_6x^5y^8 + 26\,a_1^2a_2a_4^2x^5y^8 - 32\,a_4^3x^5y^8 + 19\,a_3^2a_1^2a_2^2x^5y^8 - 21\,a_1^5a_3a_2^2x^5y^8 + 13\,a_3a_1^5a_4x^5y^8 + 16\,a_2^2a_4^2x^5y^8 - 6\,a_3^4x^5y^8 - 36\,a_6a_3^2x^5y^8 + 5\,a_1^4a_3^2a_2x^5y^8 - 239\,a_1^2a_6a_2^2x^5y^8 + 162\,a_6^2x^5y^8 - a_3^2a_1^6x^5y^8 - 45\,a_1^6a_6x^5y^8 + 10\,a_3^2a_2^3x^5y^8 + 60\,a_2a_6a_4x^5y^8 - 75\,a_3a_1a_4^2x^5y^8 + 13\,a_1^4a_4^2x^5y^8 - 6\,a_1a_3a_2^4x^5y^8 - 7\,a_1^6a_2a_4x^5y^8 + 6\,a_3^3a_1a_2x^4y^9 + 60\,a_3^2a_4a_1^2x^4y^9 + 60\,a_2a_6a_4x^4y^9 + 24\,a_3^3a_1^3x^4y^9 - a_3a_1^9x^4y^9 - 11\,a_1^4a_3^2a_2x^4y^9 - 6\,a_3^2a_2a_4x^4y^9 + 69\,a_6a_1^2a_4x^4y^9 - 7\,a_1^6a_2a_4x^4y^9 - 2\,a_3^4x^4y^9 - 5\,a_3^2a_1^6x^4y^9 - 9\,a_1^2a_2^3a_4x^4y^9 - 19\,a_1^3a_3a_2^3x^4y^9 - 3\,a_1a_3a_2^4x^4y^9 - 21\,a_1^5a_3a_2^2x^4y^9 + 5\,a_3a_1^5a_4x^4y^9 + 9\,a_3a_1a_4a_2^2x^4y^9 + 26\,a_3a_1^3a_4a_2x^4y^9 - 35\,a_2^3a_6x^4y^9 + 9\,a_1^4a_4^2x^4y^9 - 8\,a_3a_1^7a_2x^4y^9 - 41\,a_1^6a_6x^4y^9 - 6\,a_3^2a_1^2a_2^2x^4y^9 + 49\,a_3a_1^3a_6x^4y^9 - a_1^8a_4x^4y^9 + 139\,a_6a_3a_1a_2x^4y^9 - 191\,a_1^4a_6a_2x^4y^9 + 27\,a_3a_1a_4^2x^4y^9 + 75\,a_6^2x^4y^9 - a_3^2a_2^3x^4y^9 - 215\,a_1^2a_6a_2^2x^4y^9 + 21\,a_1^2a_2a_4^2x^4y^9 + 46\,a_6a_3^2x^4y^9 - 15\,a_1^4a_4a_2^2x^4y^9 + 28\,a_6a_3^2x^3y^{10} - 18\,a_3^2a_1^2a_2^2x^3y^{10} - 31\,a_6a_3a_1a_2x^3y^{10} + 8\,a_3^4x^3y^{10} + 15\,a_1^2a_2a_4^2x^3y^{10} + 12\,a_6^2x^3y^{10} + 44\,a_3^3a_1a_2x^3y^{10} - 16\,a_1^4a_4a_2^2x^3y^{10} - 27\,a_2^3a_6x^3y^{10} + 30\,a_3^3a_1^3x^3y^{10} + 48\,a_3^2a_2a_4x^3y^{10} - 30\,a_1^4a_3^2a_2x^3y^{10} - 78\,a_3a_1^3a_6x^3y^{10} - 13\,a_1^2a_2^3a_4x^3y^{10} + 8\,a_4^3x^3y^{10} - 8\,a_3a_1^7a_2x^3y^{10} - 35\,a_1^6a_6x^3y^{10} - 8\,a_1a_3a_2^4x^3y^{10} - 24\,a_1^3a_3a_2^3x^3y^{10} + 12\,a_3a_1a_4a_2^2x^3y^{10} - 11\,a_3^2a_1^6x^3y^{10} + 90\,a_3^2a_4a_1^2x^3y^{10} - 2\,a_3^2a_2^3x^3y^{10} + 8\,a_2a_6a_4x^3y^{10} - 177\,a_1^2a_6a_2^2x^3y^{10} - 161\,a_1^4a_6a_2x^3y^{10} + 6\,a_2^2a_4^2x^3y^{10} - a_3a_1^9x^3y^{10} - a_1^8a_4x^3y^{10} - 27\,a_6a_1^2a_4x^3y^{10} - 22\,a_1^5a_3a_2^2x^3y^{10} - 7\,a_1^6a_2a_4x^3y^{10} + 60\,a_3a_1a_4^2x^3y^{10} + 2\,a_1^4a_4^2x^3y^{10} - 8\,a_3a_1^5a_4x^3y^{10} - 2\,a_2^4a_4x^3y^{10} - 12\,a_1^2a_2a_4^2x^2y^{11} - 6\,a_3a_1a_4^2x^2y^{11} - 18\,a_2^3a_6x^2y^{11} - 126\,a_1^2a_6a_2^2x^2y^{11} - 30\,a_3^3a_1^3x^2y^{11} - 18\,a_6a_3^2x^2y^{11} - a_1a_3a_2^4x^2y^{11} - 30\,a_3a_1^5a_4x^2y^{11} - 15\,a_1^5a_3a_2^2x^2y^{11} - 27\,a_1^6a_6x^2y^{11} - 10\,a_1^3a_3a_2^3x^2y^{11} - 120\,a_1^4a_6a_2x^2y^{11} - 9\,a_6^2x^2y^{11} - a_1^8a_4x^2y^{11} - 160\,a_3a_1^3a_6x^2y^{11} - 6\,a_1^6a_2a_4x^2y^{11} - 12\,a_3a_1a_4a_2^2x^2y^{11} - 10\,a_1^4a_4^2x^2y^{11} - 7\,a_3a_1^7a_2x^2y^{11} - 10\,a_3^3a_1a_2x^2y^{11} - 60\,a_3a_1^3a_4a_2x^2y^{11} - 88\,a_6a_1^2a_4x^2y^{11} - 30\,a_3^2a_4a_1^2x^2y^{11} - 30\,a_3^2a_1^2a_2^2x^2y^{11} - 21\,a_3^2a_1^6x^2y^{11} - 36\,a_2a_6a_4x^2y^{11} - a_3a_1^9x^2y^{11} - 60\,a_1^4a_3^2a_2x^2y^{11} -$$

$$4\,a_1^2a_2^3a_4x^2y^{11} - 160\,a_6a_3a_1a_2x^2y^{11} - 10\,a_1^4a_4a_2^2x^2y^{11} - 2\,a_1^8a_4xy^{12} - 4\,a_4^3xy^{12} - 30\,a_1^4a_4^2xy^{12} - 20\,a_3^2a_2^3xy^{12} - 2\,a_2^4a_4xy^{12} - 12\,a_2^2a_4^2xy^{12} - 16\,a_3a_1^7a_2xy^{12} - 60\,a_1^2a_2a_4^2xy^{12} - 60\,a_3^2a_2a_4xy^{12} - 140\,a_3^3a_1^3xy^{12} - 42\,a_1^5a_3a_2^2xy^{12} - 14\,a_1^6a_2a_4xy^{12} - 90\,a_1^2a_6a_2^2xy^{12} - 56\,a_3^2a_1^6xy^{12} - 2\,a_3a_1^9xy^{12} - 30\,a_1^4a_4a_2^2xy^{12} - 210\,a_1^4a_3^2a_2xy^{12} - 10\,a_3^4xy^{12} - 180\,a_3^2a_1^2a_2^2xy^{12} - 60\,a_3a_1a_4^2xy^{12} - 160\,a_3a_1^3a_6xy^{12} - 90\,a_1^4a_6a_2xy^{12} - 21\,a_1^6a_6xy^{12} - 80\,a_6a_1^2a_4xy^{12} - 20\,a_1^2a_2^3a_4xy^{12} - 12\,a_2^3a_6xy^{12} - 120\,a_3a_1a_4a_2^2xy^{12} - 10\,a_1a_3a_2^4xy^{12} - 40\,a_1^3a_3a_2^3xy^{12} - 32\,a_2a_6a_4xy^{12} - 180\,a_3^2a_4a_1^2xy^{12} - 160\,a_6a_3a_1a_2xy^{12} - 25\,a_6a_3^2xy^{12} - 120\,a_3^3a_1a_2xy^{12} - 6\,a_6^2xy^{12} - 240\,a_3a_1^3a_4a_2xy^{12} - 84\,a_3a_1^5a_4xy^{12} - 180\,a_1^2a_4^2a_3x^{13}y - 80\,a_2^2a_6a_3x^{13}y - 50\,a_3a_6a_4x^{13}y - 150\,a_6a_3^2a_1x^{13}y - 18\,a_3a_1^8a_2x^{13}y - 420\,a_3a_1^4a_2a_4x^{13}y - 60\,a_3^3a_2^2x^{13}y - 70\,a_3^4a_1x^{13}y - 2\,a_1^{10}a_3x^{13}y - 40\,a_3a_2^3a_4x^{13}y - 120\,a_3^2a_1a_2^3x^{13}y - 40\,a_1^3a_2^3a_4x^{13}y - 40\,a_3^3a_4x^{13}y - 280\,a_3^3a_1^4x^{13}y - 10\,a_1a_4a_2^4x^{13}y - 180\,a_1^3a_6a_2^2x^{13}y - 420\,a_1^3a_2^2a_3^2x^{13}y - 112\,a_3a_1^6a_4x^{13}y - 60\,a_1a_6a_2^3x^{13}y - 336\,a_3^2a_1^5a_2x^{13}y - 126\,a_1^5a_6a_2x^{13}y - 280\,a_1^4a_3a_6x^{13}y - 420\,a_3^3a_1^2a_2x^{13}y - 160\,a_1^3a_6a_4x^{13}y - 360\,a_3^2a_1a_4a_2x^{13}y - 160\,a_1a_2a_4a_6x^{13}y - 60\,a_2a_4^2a_3x^{13}y - 56\,a_1^6a_3a_2^2x^{13}y - 16\,a_1^7a_4a_2x^{13}y - 42\,a_1^5a_4a_2^2x^{13}y - 70\,a_1^4a_2^3a_3x^{13}y - 480\,a_3a_1^2a_2a_6x^{13}y - 42\,a_1^5a_4^2x^{13}y - 360\,a_3a_1^2a_4a_2^2x^{13}y - 120\,a_1^3a_2a_4^2x^{13}y - 2\,a_1^9a_4x^{13}y - 20\,a_1a_4^3x^{13}y - 24\,a_1^7a_6x^{13}y - 30\,a_1a_6^2x^{13}y - 420\,a_3^2a_1^3a_4x^{13}y - 72\,a_3^2a_1^7x^{13}y - 2\,a_2^5a_3x^{13}y - 60\,a_4^2a_1a_2^2x^{13}y - 30\,a_1^2a_3a_2^4x^{13}y - 10\,a_1^3a_2^3a_4x^{12}y^2 - 110\,a_6a_3^2a_1x^{12}y^2 - 5\,a_1^2a_3a_2^4x^{12}y^2 - 105\,a_3^2a_1^5a_2x^{12}y^2 - 5\,a_3^4a_1x^{12}y^2 - 2\,a_1a_4^3x^{12}y^2 - 84\,a_1a_6a_2^3x^{12}y^2 - 6\,a_4^2a_1a_2^2x^{12}y^2 - 39\,a_3a_6a_4x^{12}y^2 - 90\,a_1^3a_2^2a_3^2x^{12}y^2 - 28\,a_3^2a_1^7x^{12}y^2 - a_1^{10}a_3x^{12}y^2 - 42\,a_3a_1^6a_4x^{12}y^2 - 8\,a_3a_1^8a_2x^{12}y^2 - 275\,a_1^4a_3a_6x^{12}y^2 - 60\,a_3^3a_1^2a_2x^{12}y^2 - 90\,a_3^2a_1^3a_4x^{12}y^2 - 162\,a_1^5a_6a_2x^{12}y^2 - 42\,a_1a_6^2x^{12}y^2 - 170\,a_1^3a_6a_4x^{12}y^2 - 60\,a_3a_1^2a_4a_2^2x^{12}y^2 - 30\,a_1^3a_2a_4^2x^{12}y^2 - 240\,a_1^3a_6a_2^2x^{12}y^2 - 470\,a_3a_1^2a_2a_6x^{12}y^2 - 30\,a_3^2a_1a_4a_2x^{12}y^2 - 172\,a_1a_2a_4a_6x^{12}y^2 - 78\,a_2^2a_6a_3x^{12}y^2 - 7\,a_1^7a_4a_2x^{12}y^2 - a_1a_4a_2^4x^{12}y^2 - 20\,a_1^4a_2^3a_3x^{12}y^2 - 21\,a_1^6a_3a_2^2x^{12}y^2 - 30\,a_1^2a_4^2a_3x^{12}y^2 - 30\,a_1^7a_6x^{12}y^2 - 15\,a_1^5a_4^2x^{12}y^2 - 10\,a_3^2a_1a_2^3x^{12}y^2 - 120\,a_3a_1^4a_2a_4x^{12}y^2 - 15\,a_1^5a_4a_2^2x^{12}y^2 - 70\,a_3^3a_1^4x^{12}y^2 - a_1^9a_4x^{12}y^2 + 82\,a_6a_3^2a_1x^{11}y^3 + 20\,a_3^3a_2^2x^{11}y^3 - 40\,a_1^4a_2^3a_3x^{11}y^3 + 12\,a_4^2a_1a_2^2x^{11}y^3 + 90\,a_3^3a_1^2a_2x^{11}y^3 + 130\,a_3^2a_1^3a_4x^{11}y^3 - 16\,a_2^2a_6a_3x^{11}y^3 - 2\,a_2^5a_3x^{11}y^3 - 52\,a_1a_2a_4a_6x^{11}y^3 - 18\,a_3a_1^6a_4x^{11}y^3 + 21\,a_1a_6^2x^{11}y^3 - 66\,a_3^2a_1^5a_2x^{11}y^3 - 40\,a_3a_1^4a_2a_4x^{11}y^3 + 8\,a_1^3a_2a_4^2x^{11}y^3 - 9\,a_3a_1^8a_2x^{11}y^3 + 40\,a_3^3a_4x^{11}y^3 - 12\,a_3a_1^2a_4a_2^2x^{11}y^3 + 30\,a_3^3a_1^4x^{11}y^3 + 180\,a_3^2a_1a_4a_2x^{11}y^3 - 8\,a_1^7a_4a_2x^{11}y^3 - 218\,a_1^5a_6a_2x^{11}y^3 + 60\,a_3a_6a_4x^{11}y^3 - 2\,a_1^5a_4^2x^{11}y^3 - 70\,a_1^3a_2^2a_3^2x^{11}y^3 - 180\,a_1^4a_3a_6x^{11}y^3 - 8\,a_1a_4a_2^4x^{11}y^3 - 126\,a_1a_6a_2^3x^{11}y^3 + 40\,a_3^4a_1x^{11}y^3 - 21\,a_1^2a_3a_2^4x^{11}y^3 - a_1^{10}a_3x^{11}y^3 + 60\,a_2a_4^2a_3x^{11}y^3 - 338\,a_1^3a_6a_2^2x^{11}y^3 - 29\,a_1^6a_3a_2^2x^{11}y^3 - 22\,a_1^5a_4a_2^2x^{11}y^3 - 17\,a_3^2a_1^7x^{11}y^3 - 96\,a_1^3a_6a_4x^{11}y^3 - 39\,a_1^7a_6x^{11}y^3 - 232\,a_3a_1^2a_2a_6x^{11}y^3 - a_1^9a_4x^{11}y^3 + 24\,a_1a_4^3x^{11}y^3 - 20\,a_3^2a_1a_2^3x^{11}y^3 + 114\,a_1^2a_4^2a_3x^{11}y^3 - 24\,a_1^3a_2^3a_4x^{11}y^3 - 28\,a_1^6a_3a_2^2x^{10}y^4 + 9\,a_4^2a_1a_2^2x^{10}y^4 - 34\,a_1^3a_2^2a_3^2x^{10}y^4 + 36\,a_3^3a_1^2a_2x^{10}y^4 - 19\,a_1^3a_2^3a_4x^{10}y^4 - 23\,a_1^4a_3a_6x^{10}y^4 + 117\,a_3a_1^2a_2a_6x^{10}y^4 - 36\,a_3^2a_1^5a_2x^{10}y^4 + 118\,a_3^2a_1^3a_4x^{10}y^4 - a_3a_2^3a_4x^{10}y^4 + 48\,a_3^2a_1a_4a_2x^{10}y^4 - 46\,a_1^7a_6x^{10}y^4 - 10\,a_3^2a_1^7x^{10}y^4 - 8\,a_1^7a_4a_2x^{10}y^4 + 6\,a_1^5a_4^2x^{10}y^4 - 12\,a_1^2a_3a_2^4x^{10}y^4 - 21\,a_1^5a_4a_2^2x^{10}y^4 + 7\,a_3a_1^4a_2a_4x^{10}y^4 - 260\,a_1^5a_6a_2x^{10}y^4 + 24\,a_1^3a_2a_4^2x^{10}y^4 - 409\,a_1^3a_6a_2^2x^{10}y^4 - 3\,a_2a_4^2a_3x^{10}y^4 + 35\,a_3^3a_1^4x^{10}y^4 + 2\,a_3^4a_1x^{10}y^4 - 7\,a_3^2a_1a_2^3x^{10}y^4 + 100\,a_1a_2a_4a_6x^{10}y^4 + 12\,a_1a_4^3x^{10}y^4 + 12\,a_3a_1^2a_4a_2^2x^{10}y^4 + 191\,a_6a_3^2a_1x^{10}y^4 - 3\,a_1a_4a_2^4x^{10}y^4 + 56\,a_2^2a_6a_3x^{10}y^4 - 156\,a_1a_6a_2^3x^{10}y^4 + 106\,a_3a_6a_4x^{10}y^4 - a_1^9a_4x^{10}y^4 - 34\,a_1^4a_2^3a_3x^{10}y^4 + 183\,a_1a_6^2x^{10}y^4 - 9\,a_3a_1^8a_2x^{10}y^4 - 6\,a_3^3a_4x^{10}y^4 + 84\,a_1^2a_4^2a_3x^{10}y^4 - 6\,a_3^3a_2^2x^{10}y^4 + 22\,a_1^3a_6a_4x^{10}y^4 - 3\,a_3a_1^6a_4x^{10}y^4 - a_1^{10}a_3x^{10}y^4 - 66\,a_3^2a_1a_4a_2x^9y^5 + 381\,a_1a_6^2x^9y^5 - a_1^{10}a_3x^9y^5 - 9\,a_3a_1^8a_2x^9y^5 - 5\,a_3^2a_1^7x^9y^5 - 24\,a_3^4a_1x^9y^5 - 172\,a_1a_6a_2^3x^9y^5 + 28\,a_6a_3^2a_1x^9y^5 + 8\,a_3^3a_2^2x^9y^5 - 96\,a_3a_6a_4x^9y^5 - 21\,a_1^5a_4a_2^2x^9y^5 - 290\,a_1^5a_6a_2x^9y^5 + 4\,a_3^2a_1^3a_4x^9y^5 - 459\,a_1^3a_6a_2^2x^9y^5 + 67\,a_3a_1^2a_4a_2^2x^9y^5 + 131\,a_1^3a_6a_4x^9y^5 + 28\,a_4^2a_1a_2^2x^9y^5 - 36\,a_1a_4^3x^9y^5 + 131\,a_1^4a_3a_6x^9y^5 + 10\,a_1^3a_2^2a_3^2x^9y^5 - a_1^9a_4x^9y^5 - 28\,a_1^6a_3a_2^2x^9y^5 - 6\,a_1a_4a_2^4x^9y^5 - 11\,a_3^2a_1^5a_2x^9y^5 - 20\,a_1^3a_2^3a_4x^9y^5 - 2\,a_2^5a_3x^9y^5 + 11\,a_1^5a_4^2x^9y^5 + 36\,a_1^3a_2a_4^2x^9y^5 + 26\,a_3a_2^3a_4x^9y^5 - 51\,a_1^7a_6x^9y^5 -$$

$$44\,a_3{}^3a_4x^9y^5+10\,a_3{}^3a_1{}^4x^9y^5+128\,a_2{}^2a_6a_3x^9y^5-35\,a_1{}^4a_2{}^3a_3x^9y^5+7\,a_3a_1{}^6a_4x^9y^5-8\,a_1{}^7a_4a_2x^9y^5+200\,a_1a_2a_4a_6x^9y^5-53\,a_1{}^2a_4{}^2a_3x^9y^5+433\,a_3a_1{}^2a_2a_6x^9y^5+44\,a_3a_1{}^4a_2a_4x^9y^5+21\,a_3{}^2a_1a_2{}^3x^9y^5-62\,a_2a_4{}^2a_3x^9y^5-16\,a_1{}^2a_3a_2{}^4x^9y^5-a_1{}^{10}a_3x^8y^6-a_1{}^9a_4x^8y^6-308\,a_1{}^5a_6a_2x^8y^6+68\,a_3a_1{}^4a_2a_4x^8y^6-54\,a_1{}^7a_6x^8y^6-5\,a_1a_4a_2{}^4x^8y^6-80\,a_1a_4{}^3x^8y^6-174\,a_1{}^2a_4{}^2a_3x^8y^6-468\,a_3a_6a_4x^8y^6+45\,a_1{}^3a_2a_4{}^2x^8y^6+270\,a_1a_2a_4a_6x^8y^6-98\,a_3{}^2a_1{}^3a_4x^8y^6-9\,a_3a_1{}^8a_2x^8y^6-21\,a_1{}^5a_4a_2{}^2x^8y^6+222\,a_2{}^2a_6a_3x^8y^6+3\,a_3{}^4a_1x^8y^6-489\,a_1{}^3a_6a_2{}^2x^8y^6-8\,a_1{}^7a_4a_2x^8y^6-15\,a_3{}^3a_1{}^2a_2x^8y^6+97\,a_3a_1{}^2a_4a_2{}^2x^8y^6-15\,a_3{}^3a_1{}^4x^8y^6+654\,a_3a_1{}^2a_2a_6x^8y^6-264\,a_6a_3{}^2a_1x^8y^6+207\,a_1{}^3a_6a_4x^8y^6+531\,a_1a_6{}^2x^8y^6-61\,a_3{}^2a_1a_4a_2x^8y^6-15\,a_1{}^2a_3a_2{}^4x^8y^6+31\,a_1{}^3a_2{}^2a_3{}^2x^8y^6+14\,a_1{}^5a_4{}^2x^8y^6+13\,a_3{}^2a_1a_2{}^3x^8y^6+240\,a_1{}^4a_3a_6x^8y^6-4\,a_3a_2{}^3a_4x^8y^6-2\,a_3{}^2a_1{}^7x^8y^6-28\,a_1{}^6a_3a_2{}^2x^8y^6+40\,a_4{}^2a_1a_2{}^2x^8y^6+4\,a_3{}^2a_1{}^5a_2x^8y^6-20\,a_1{}^3a_2{}^3a_4x^8y^6-35\,a_1{}^4a_2{}^3a_3x^8y^6-184\,a_1a_6a_2{}^3x^8y^6+13\,a_3a_1{}^6a_4x^8y^6+11\,a_2a_4{}^2a_3x^8y^6+24\,a_3{}^3a_4x^8y^6+36\,a_4{}^2a_1a_2{}^2x^7y^7-192\,a_1a_6a_2{}^3x^7y^7-15\,a_1{}^2a_3a_2{}^4x^7y^7-220\,a_1{}^2a_4{}^2a_3x^7y^7-9\,a_3a_1{}^8a_2x^7y^7-402\,a_6a_3{}^2a_1x^7y^7+585\,a_1a_6{}^2x^7y^7-314\,a_1{}^5a_6a_2x^7y^7-a_2{}^6a_1x^7y^7+732\,a_3a_1{}^2a_2a_6x^7y^7-20\,a_1{}^3a_2{}^3a_4x^7y^7+15\,a_3a_1{}^6a_4x^7y^7+80\,a_2a_4{}^2a_3x^7y^7-137\,a_3{}^2a_1{}^3a_4x^7y^7-499\,a_1{}^3a_6a_2{}^2x^7y^7-8\,a_1{}^7a_4a_2x^7y^7+234\,a_1{}^3a_6a_4x^7y^7-660\,a_3a_6a_4x^7y^7-55\,a_1{}^7a_6x^7y^7+105\,a_3a_1{}^2a_4a_2{}^2x^7y^7+48\,a_1{}^3a_2a_4{}^2x^7y^7+76\,a_3a_1{}^4a_2a_4x^7y^7+276\,a_2{}^2a_6a_3x^7y^7-a_3{}^2a_1{}^7x^7y^7+15\,a_1{}^5a_4{}^2x^7y^7+9\,a_3{}^2a_1{}^5a_2x^7y^7-42\,a_3a_2{}^3a_4x^7y^7+279\,a_1{}^4a_3a_6x^7y^7-35\,a_1{}^4a_2{}^3a_3x^7y^7+15\,a_3{}^2a_1a_2{}^3x^7y^7-a_1{}^{10}a_3x^7y^7-28\,a_1{}^6a_3a_2{}^2x^7y^7+24\,a_3{}^4a_1x^7y^7-21\,a_3{}^3a_1{}^2a_2x^7y^7-21\,a_1{}^5a_4a_2{}^2x^7y^7+300\,a_1a_2a_4a_6x^7y^7+6\,a_2{}^5a_3x^7y^7-48\,a_3{}^2a_1a_4a_2x^7y^7+38\,a_1{}^3a_2{}^2a_3{}^2x^7y^7+84\,a_3{}^3a_4x^7y^7-a_1{}^9a_4x^7y^7-25\,a_3{}^3a_1{}^4x^7y^7-26\,a_3{}^3a_2{}^2x^7y^7-96\,a_1a_4{}^3x^7y^7-98\,a_3{}^2a_1{}^3a_4x^6y^8+4\,a_3{}^2a_1{}^5a_2x^6y^8-8\,a_1{}^7a_4a_2x^6y^8-80\,a_1a_4{}^3x^6y^8-489\,a_1{}^3a_6a_2{}^2x^6y^8-2\,a_3{}^2a_1{}^7x^6y^8-28\,a_1{}^6a_3a_2{}^2x^6y^8-308\,a_1{}^5a_6a_2x^6y^8+13\,a_3a_1{}^6a_4x^6y^8+31\,a_1{}^3a_2{}^2a_3{}^2x^6y^8+24\,a_3{}^3a_4x^6y^8-15\,a_3{}^3a_1{}^4x^6y^8-21\,a_1{}^5a_4a_2{}^2x^6y^8+240\,a_1{}^4a_3a_6x^6y^8+97\,a_3a_1{}^2a_4a_2{}^2x^6y^8-468\,a_3a_6a_4x^6y^8+270\,a_1a_2a_4a_6x^6y^8+11\,a_2a_4{}^2a_3x^6y^8+40\,a_4{}^2a_1a_2{}^2x^6y^8-264\,a_6a_3{}^2a_1x^6y^8-a_1{}^9a_4x^6y^8-9\,a_3a_1{}^8a_2x^6y^8+654\,a_3a_1{}^2a_2a_6x^6y^8-15\,a_3{}^3a_1{}^2a_2x^6y^8+13\,a_3{}^2a_1a_2{}^3x^6y^8-20\,a_1{}^3a_2{}^3a_4x^6y^8-5\,a_1a_4a_2{}^4x^6y^8-184\,a_1a_6a_2{}^3x^6y^8+207\,a_1{}^3a_6a_4x^6y^8-174\,a_1{}^2a_4{}^2a_3x^6y^8-4\,a_3a_2{}^3a_4x^6y^8+68\,a_3a_1{}^4a_2a_4x^6y^8-61\,a_3{}^2a_1a_4a_2x^6y^8+45\,a_1{}^3a_2a_4{}^2x^6y^8-a_1{}^{10}a_3x^6y^8+531\,a_1a_6{}^2x^6y^8-15\,a_1{}^2a_3a_2{}^4x^6y^8+14\,a_1{}^5a_4{}^2x^6y^8+222\,a_2{}^2a_6a_3x^6y^8-35\,a_1{}^4a_2{}^3a_3x^6y^8+3\,a_3{}^4a_1x^6y^8-54\,a_1{}^7a_6x^6y^8+433\,a_3a_1{}^2a_2a_6x^5y^9-2\,a_2{}^5a_3x^5y^9-8\,a_1{}^7a_4a_2x^5y^9+128\,a_2{}^2a_6a_3x^5y^9+36\,a_1{}^3a_2a_4{}^2x^5y^9+200\,a_1a_2a_4a_6x^5y^9+11\,a_1{}^5a_4{}^2x^5y^9-11\,a_3{}^2a_1{}^5a_2x^5y^9+381\,a_1a_6{}^2x^5y^9-66\,a_3{}^2a_1a_4a_2x^5y^9-53\,a_1{}^2a_4{}^2a_3x^5y^9-6\,a_1a_4a_2{}^4x^5y^9+28\,a_6a_3{}^2a_1x^5y^9-96\,a_3a_6a_4x^5y^9+44\,a_3a_1{}^4a_2a_4x^5y^9-62\,a_2a_4{}^2a_3x^5y^9+8\,a_3{}^3a_2{}^2x^5y^9-172\,a_1a_6a_2{}^3x^5y^9-51\,a_1{}^7a_6x^5y^9-24\,a_3{}^4a_1x^5y^9-5\,a_3{}^2a_1{}^7x^5y^9+131\,a_1{}^3a_6a_4x^5y^9-a_1{}^{10}a_3x^5y^9-290\,a_1{}^5a_6a_2x^5y^9-9\,a_3a_1{}^8a_2x^5y^9-44\,a_3{}^3a_4x^5y^9+21\,a_3{}^2a_1a_2{}^3x^5y^9-35\,a_1{}^4a_2{}^3a_3x^5y^9+26\,a_3a_2{}^3a_4x^5y^9-21\,a_1{}^5a_4a_2{}^2x^5y^9+131\,a_1{}^4a_3a_6x^5y^9-36\,a_1a_4{}^3x^5y^9+4\,a_3{}^2a_1{}^3a_4x^5y^9+10\,a_1{}^3a_2{}^2a_3{}^2x^5y^9-459\,a_1{}^3a_6a_2{}^2x^5y^9-28\,a_1{}^6a_3a_2{}^2x^5y^9-20\,a_1{}^3a_2{}^3a_4x^5y^9+28\,a_4{}^2a_1a_2{}^2x^5y^9+67\,a_3a_1{}^2a_4a_2{}^2x^5y^9+7\,a_3a_1{}^6a_4x^5y^9-a_1{}^9a_4x^5y^9-16\,a_1{}^2a_3a_2{}^4x^5y^9+10\,a_3{}^3a_1{}^4x^5y^9+35\,a_3{}^3a_1{}^4x^4y^{10}-8\,a_1{}^7a_4a_2x^4y^{10}+2\,a_3{}^4a_1x^4y^{10}-7\,a_3{}^2a_1a_2{}^3x^4y^{10}+191\,a_6a_3{}^2a_1x^4y^{10}-34\,a_1{}^4a_2{}^3a_3x^4y^{10}-a_3a_2{}^3a_4x^4y^{10}+6\,a_1{}^5a_4{}^2x^4y^{10}-a_1{}^{10}a_3x^4y^{10}-6\,a_3{}^3a_2{}^2x^4y^{10}-12\,a_1{}^2a_3a_2{}^4x^4y^{10}-3\,a_3a_1{}^6a_4x^4y^{10}-156\,a_1a_6a_2{}^3x^4y^{10}-46\,a_1{}^7a_6x^4y^{10}+36\,a_3{}^3a_1{}^2a_2x^4y^{10}-3\,a_1a_4a_2{}^4x^4y^{10}+24\,a_1{}^3a_2a_4{}^2x^4y^{10}-9\,a_3a_1{}^8a_2x^4y^{10}+106\,a_3a_6a_4x^4y^{10}-21\,a_1{}^5a_4a_2{}^2x^4y^{10}-409\,a_1{}^3a_6a_2{}^2x^4y^{10}-34\,a_1{}^3a_2{}^2a_3{}^2x^4y^{10}-10\,a_3{}^2a_1{}^7x^4y^{10}+56\,a_2{}^2a_6a_3x^4y^{10}+22\,a_1{}^3a_6a_4x^4y^{10}+117\,a_3a_1{}^2a_2a_6x^4y^{10}-23\,a_1{}^4a_3a_6x^4y^{10}+12\,a_3a_1{}^2a_4a_2{}^2x^4y^{10}-a_1{}^9a_4x^4y^{10}-3\,a_2a_4{}^2a_3x^4y^{10}+183\,a_1a_6{}^2x^4y^{10}+48\,a_3{}^2a_1a_4a_2x^4y^{10}+7\,a_3a_1{}^4a_2a_4x^4y^{10}+9\,a_4{}^2a_1a_2{}^2x^4y^{10}-36\,a_3{}^2a_1{}^5a_2x^4y^{10}+84\,a_1{}^2a_4{}^2a_3x^4y^{10}-28\,a_1{}^6a_3a_2{}^2x^4y^{10}+100\,a_1a_2a_4a_6x^4y^{10}+12\,a_1a_4{}^3x^4y^{10}-19\,a_1{}^3a_2{}^3a_4x^4y^{10}-260\,a_1{}^5a_6a_2x^4y^{10}-6\,a_3{}^3a_4x^4y^{10}+118\,a_3{}^2a_1{}^3a_4x^4y^{10}-9\,a_3a_1{}^8a_2x^3y^{11}+8\,a_1{}^3a_2a_4{}^2x^3y^{11}+20\,a_3{}^3a_2{}^2x^3y^{11}+82\,a_6a_3{}^2a_1x^3y^{11}+180\,a_3{}^2a_1a_4a_2x^3y^{11}+90\,a_3{}^3a_1{}^2a_2x^3y^{11}-232\,a_3a_1{}^2a_2a_6x^3y^{11}-17\,a_3{}^2a_1{}^7x^3y^{11}-126\,a_1a_6a_2{}^3x^3y^{11}-a_1{}^9a_4x^3y^{11}+40\,a_3{}^3a_4x^3y^{11}-29\,a_1{}^6a_3a_2{}^2x^3y^{11}-a_1{}^{10}a_3x^3y^{11}-21\,a_1{}^2a_3a_2{}^4x^3y^{11}+114\,a_1{}^2a_4{}^2a_3x^3y^{11}+24\,a_1a_4{}^3x^3y^{11}-40\,a_1{}^4a_2{}^3a_3x^3y^{11}-2\,a_1{}^5a_4{}^2x^3y^{11}-$$

$$8\,a_1a_4a_2{}^4x^3y^{11}-39\,a_1{}^7a_6x^3y^{11}+30\,a_3{}^3a_1{}^4x^3y^{11}+130\,a_3{}^2a_1{}^3a_4x^3y^{11}+21\,a_1a_6{}^2x^3y^{11}-218\,a_1{}^5a_6a_2x^3y^{11}-22\,a_1{}^5a_4a_2{}^2x^3y^{11}-24\,a_1{}^3a_2{}^3a_4x^3y^{11}+12\,a_4{}^2a_1a_2{}^2x^3y^{11}-12\,a_3a_1{}^2a_4a_2{}^2x^3y^{11}+60\,a_3a_6a_4x^3y^{11}-20\,a_3{}^2a_1a_2{}^3x^3y^{11}-16\,a_2{}^2a_6a_3x^3y^{11}-180\,a_1{}^4a_3a_6x^3y^{11}+40\,a_3{}^4a_1x^3y^{11}-40\,a_3a_1{}^4a_2a_4x^3y^{11}-66\,a_3{}^2a_1{}^5a_2x^3y^{11}-70\,a_1{}^3a_2{}^2a_3{}^2x^3y^{11}-52\,a_1a_2a_4a_6x^3y^{11}-96\,a_1{}^3a_6a_4x^3y^{11}+60\,a_2a_4{}^2a_3x^3y^{11}-18\,a_3a_1{}^6a_4x^3y^{11}-8\,a_1{}^7a_4a_2x^3y^{11}-2\,a_2{}^5a_3x^3y^{11}-338\,a_1{}^3a_6a_2{}^2x^3y^{11}-10\,a_1{}^3a_2{}^3a_4x^2y^{12}-21\,a_1{}^6a_3a_2{}^2x^2y^{12}-162\,a_1{}^5a_6a_2x^2y^{12}-a_1a_4a_2{}^4x^2y^{12}-90\,a_3{}^2a_1{}^3a_4x^2y^{12}-7\,a_1{}^7a_4a_2x^2y^{12}-60\,a_3a_1{}^2a_4a_2{}^2x^2y^{12}-170\,a_1{}^3a_6a_4x^2y^{12}-240\,a_1{}^3a_6a_2{}^2x^2y^{12}-90\,a_1{}^3a_2{}^2a_3{}^2x^2y^{12}-84\,a_1a_6a_2{}^3x^2y^{12}-15\,a_1{}^5a_4a_2{}^2x^2y^{12}-110\,a_6a_3{}^2a_1x^2y^{12}-60\,a_3{}^3a_1{}^2a_2x^2y^{12}-275\,a_1{}^4a_3a_6x^2y^{12}-10\,a_3{}^2a_1a_2{}^3x^2y^{12}-2\,a_1a_4{}^3x^2y^{12}-6\,a_4{}^2a_1a_2{}^2x^2y^{12}-470\,a_3a_1{}^2a_2a_6x^2y^{12}-15\,a_1{}^5a_4{}^2x^2y^{12}-78\,a_2{}^2a_6a_3x^2y^{12}-172\,a_1a_2a_4a_6x^2y^{12}-28\,a_3{}^2a_1{}^7x^2y^{12}-105\,a_3{}^2a_1{}^5a_2x^2y^{12}-8\,a_3a_1{}^8a_2x^2y^{12}-5\,a_3{}^4a_1x^2y^{12}-42\,a_1a_6{}^2x^2y^{12}-30\,a_3{}^2a_1a_4a_2x^2y^{12}-a_1{}^{10}a_3x^2y^{12}-70\,a_3{}^3a_1{}^4x^2y^{12}-30\,a_1{}^3a_2a_4{}^2x^2y^{12}-30\,a_1{}^7a_6x^2y^{12}-39\,a_3a_6a_4x^2y^{12}-20\,a_1{}^4a_2{}^3a_3x^2y^{12}-42\,a_3a_1{}^6a_4x^2y^{12}-5\,a_1{}^2a_3a_2{}^4x^2y^{12}-a_1{}^9a_4x^2y^{12}-30\,a_1{}^2a_4{}^2a_3x^2y^{12}-120\,a_3a_1{}^4a_2a_4x^2y^{12}-60\,a_1a_6a_2{}^3xy^{13}-40\,a_3a_2{}^3a_4xy^{13}-360\,a_3{}^2a_1a_4a_2xy^{13}-40\,a_1{}^3a_2{}^3a_4xy^{13}-2\,a_1{}^9a_4xy^{13}-18\,a_3a_1{}^8a_2xy^{13}-60\,a_4{}^2a_1a_2{}^2xy^{13}-60\,a_2a_4{}^2a_3xy^{13}-420\,a_1{}^3a_2{}^2a_3{}^2xy^{13}-50\,a_3a_6a_4xy^{13}-40\,a_3{}^3a_4xy^{13}-120\,a_3{}^2a_1a_2{}^3xy^{13}-16\,a_1{}^7a_4a_2xy^{13}-2\,a_1{}^{10}a_3xy^{13}-70\,a_1{}^4a_2{}^3a_3xy^{13}-56\,a_1{}^6a_3a_2{}^2xy^{13}-360\,a_3a_1{}^2a_4a_2{}^2xy^{13}-30\,a_1{}^2a_3a_2{}^4xy^{13}-120\,a_1{}^3a_2a_4{}^2xy^{13}-160\,a_1a_2a_4a_6xy^{13}-420\,a_3a_1{}^4a_2a_4xy^{13}-150\,a_6a_3{}^2a_1xy^{13}-20\,a_1a_4{}^3xy^{13}-126\,a_1{}^5a_6a_2xy^{13}-112\,a_3a_1{}^6a_4xy^{13}-80\,a_2{}^2a_6a_3xy^{13}-160\,a_1{}^3a_6a_4xy^{13}-180\,a_1{}^2a_4{}^2a_3xy^{13}-180\,a_1{}^3a_6a_2{}^2xy^{13}-42\,a_1{}^5a_4a_2{}^2xy^{13}-42\,a_1{}^5a_4{}^2xy^{13}-480\,a_3a_1{}^2a_2a_6xy^{13}-60\,a_3{}^3a_2{}^2xy^{13}-280\,a_3{}^3a_1{}^4xy^{13}-280\,a_1{}^4a_3a_6xy^{13}-10\,a_1a_4a_2{}^4xy^{13}-30\,a_1a_6{}^2xy^{13}-420\,a_3{}^3a_1{}^2a_2xy^{13}-70\,a_3{}^4a_1xy^{13}-336\,a_3{}^2a_1{}^5a_2xy^{13}-2\,a_2{}^5a_3xy^{13}-24\,a_1{}^7a_6xy^{13}-420\,a_3{}^2a_1{}^3a_4xy^{13}-72\,a_3{}^2a_1{}^7xy^{13}$$

Some values of the n-series for $F_C(x,y)$ over $\mathbb{Z}[a_1,a_2,a_3,a_4,a_6]$ are:

$$[2]_C(x)=(2\,x-a_1x^2-2\,a_2x^3+(a_1a_2-7\,a_3)x^4+(-6\,a_3a_1+2\,a_2{}^2-12\,a_4)x^5+(-2\,a_2a_3-6\,a_1a_4-a_1a_2{}^2-7\,a_3a_1{}^2)x^6+(-14\,a_3a_1a_2-2\,a_2{}^3-54\,a_6+4\,a_3{}^2-8\,a_3a_1{}^3+4\,a_2a_4-8\,a_4a_1{}^2)x^7+(-25\,a_1{}^2a_2a_3-18\,a_4a_1a_2-13\,a_3a_2{}^2+35\,a_4a_3+a_1a_2{}^3-9\,a_1{}^3a_4-9\,a_1{}^4a_3-a_3{}^2a_1-81\,a_1a_6)x^8+(-28\,a_1{}^2a_2a_4+30\,a_3a_1a_4-28\,a_2{}^2a_3a_1-38\,a_3a_1{}^3a_2+2\,a_2{}^4+44\,a_4{}^2-6\,a_3{}^2a_2-10\,a_1{}^4a_4-128\,a_6a_1{}^2-14\,a_3{}^2a_1{}^2-10\,a_3a_1{}^5-80\,a_2a_6-24\,a_4a_2{}^2)x^9+(-16\,a_4a_3a_2-28\,a_1a_4a_2{}^2+13\,a_3a_1{}^2a_4-308\,a_6a_1a_2-42\,a_1{}^3a_4a_2-53\,a_3a_1{}^4a_2-62\,a_1{}^2a_3a_2{}^2-29\,a_3{}^2a_1a_2-8\,a_3{}^3-4\,a_2{}^3a_3-37\,a_3{}^2a_1{}^3-11\,a_1{}^6a_3-185\,a_6a_1{}^3-11\,a_1{}^5a_4+38\,a_4{}^2a_1-a_1a_2{}^4+164\,a_6a_3)x^{10}+(-2\,a_2{}^2a_3{}^2-114\,a_1{}^3a_3a_2{}^2-58\,a_1{}^4a_2a_4-70\,a_3a_1{}^5a_2-68\,a_1{}^2a_4a_2{}^2-666\,a_6a_1{}^2a_2-12\,a_1{}^6a_4-106\,a_3{}^2a_1{}^2a_2-24\,a_3a_1{}^3a_4+270\,a_3a_1a_6-44\,a_2{}^3a_3a_1-32\,a_3{}^3a_1-2\,a_2{}^5+8\,a_2{}^3a_4+36\,a_1{}^2a_4{}^2-12\,a_3a_1{}^7-28\,a_2a_4{}^2-254\,a_1{}^4a_6-72\,a_3{}^2a_1{}^4-72\,a_3{}^2a_4-220\,a_6a_2{}^2-2\,a_3a_1a_2a_4+312\,a_6a_4)x^{11}+(a_1a_2{}^5-121\,a_3{}^2a_1{}^5-13\,a_1{}^7a_4-19\,a_2{}^4a_3-25\,a_3{}^3a_2+23\,a_1{}^3a_4{}^2+283\,a_6a_3a_1{}^2-822\,a_1a_6a_2{}^2-85\,a_1{}^4a_3a_4-85\,a_3{}^2a_1a_2{}^2-52\,a_2{}^3a_4a_1+38\,a_2a_4{}^2a_1-76\,a_1{}^5a_4a_2-124\,a_1{}^3a_4a_2{}^2+70\,a_2{}^2a_4a_3-187\,a_1{}^4a_3a_2{}^2-173\,a_3{}^2a_1a_4+252\,a_6a_3a_2-1212\,a_1{}^3a_2a_6+444\,a_4a_1a_6-89\,a_3a_1{}^6a_2-276\,a_3{}^2a_1{}^3a_2-214\,a_4{}^2a_3-101\,a_3{}^3a_1{}^2-336\,a_1{}^5a_6-86\,a_3a_1{}^2a_4a_2-122\,a_1{}^2a_2{}^3a_3-13\,a_3a_1{}^8)x^{12}+(-202\,a_1{}^4a_4a_2{}^2-266\,a_1{}^3a_3a_2{}^3-66\,a_1a_3a_2{}^4-96\,a_1{}^6a_2a_4-186\,a_3{}^3a_1a_2-72\,a_3{}^2a_2a_4-110\,a_3a_1{}^7a_2-386\,a_3{}^2a_4a_1{}^2-174\,a_3a_1{}^5a_4+176\,a_2a_6a_4-404\,a_3a_1a_4{}^2-284\,a_1{}^5a_3a_2{}^2-586\,a_1{}^4a_3{}^2a_2-184\,a_4{}^3-8\,a_3{}^4+918\,a_6{}^2+2\,a_2{}^6-36\,a_2{}^4a_4-34\,a_3{}^2a_2{}^3-186\,a_3{}^2a_1{}^6-336\,a_3a_1{}^3a_4a_2+80\,a_3a_1{}^3a_6-1988\,a_1{}^4a_6a_2-2196\,a_1{}^2a_6a_2{}^2-22\,a_3a_1a_4a_2{}^2+756\,a_6a_3a_1a_2+440\,a_6a_1{}^2a_4-132\,a_1{}^2a_2{}^3a_4+40\,a_1{}^2a_2a_4{}^2-376\,a_3{}^2a_1{}^2a_2{}^2+116\,a_2{}^2a_4{}^2-266\,a_3{}^3a_1{}^3-2\,a_1{}^4a_4{}^2-432\,a_1{}^6a_6-14\,a_1{}^8a_4-310\,a_6a_3{}^2-304\,a_2{}^3a_6-14\,a_3a_1{}^9)x^{13}+(-698\,a_1{}^2a_4{}^2a_3-305\,a_1{}^5a_4a_2{}^2-503\,a_1{}^4a_2{}^3a_3+776\,a_3a_1{}^2a_2a_6-286\,a_1{}^3a_2{}^3a_4-759\,a_3{}^3a_1{}^2a_2-26\,a_1{}^3a_2a_4{}^2-848\,a_6a_3{}^2a_1-6\,a_2{}^5a_3-41\,a_1{}^5a_4{}^2-102\,a_3{}^3a_2{}^2-15\,a_1{}^{10}a_3-15\,a_1{}^9a_4-a_2{}^6a_1-269\,a_3{}^2a_1{}^7-300\,a_1a_4{}^3-84\,a_3{}^4a_1-605\,a_3{}^3a_1{}^4+2673\,a_1a_6{}^2+32\,a_3{}^3a_4-3042\,a_1{}^5a_6a_2-495\,a_1{}^4a_3a_6-626\,a_3{}^2a_1a_4a_2+672\,a_1a_2a_4a_6-543\,a_1{}^7a_6+740\,a_2{}^2a_6a_3-1634\,a_3a_6a_4-408\,a_1{}^6a_3a_2{}^2-118\,a_1{}^7a_4a_2-849\,a_3{}^2a_1{}^3a_4-133\,a_3a_1{}^8a_2+102\,a_1{}^3a_6a_4-4729\,a_1{}^3a_6a_2{}^2-$$

$$1108\,a_1{}^3a_2{}^2a_3{}^2 - 295\,a_3a_1{}^6a_4 - 66\,a_1a_4a_2{}^4 - 1091\,a_3{}^2a_1{}^5a_2 - 213\,a_1{}^2a_3a_2{}^4 - 1756\,a_1a_6a_2{}^3 + 82\,a_4{}^2a_1a_2{}^2 - 80\,a_3a_2{}^3a_4 - 231\,a_3{}^2a_1a_2{}^3 - 28\,a_2a_4{}^2a_3 - 846\,a_3a_1{}^4a_2a_4 - 407\,a_3a_1{}^2a_4a_2{}^2)x^{14} + O(x^{15}))$$

$$[3]_C(x) = (3\,x - 3\,a_1x^2 + (-8\,a_2 + a_1{}^2)x^3 + (12\,a_1a_2 - 39\,a_3)x^4 + (-6\,a_1{}^2a_2 - 9\,a_3a_1 + 24\,a_2{}^2 - 96\,a_4)x^5 + (57\,a_2a_3 + 48\,a_1a_4 - 44\,a_1a_2{}^2 - 30\,a_3a_1{}^2 + a_1{}^3a_2)x^6 + (-168\,a_3a_1a_2 - 72\,a_2{}^3 - 936\,a_6 + 234\,a_3{}^2 - 36\,a_3a_1{}^3 + 288\,a_2a_4 - 72\,a_4a_1{}^2 + 30\,a_1{}^2a_2{}^2)x^7 + (-126\,a_1{}^2a_2a_3 - 624\,a_4a_1a_2 - 9\,a_1{}^3a_2{}^2 - 423\,a_3a_2{}^2 + 1665\,a_4a_3 + 156\,a_1a_2{}^3 - 36\,a_1{}^3a_4 - 45\,a_1{}^4a_3 + 189\,a_3{}^2a_1 - 468\,a_1a_6)x^8 + (152\,a_1{}^2a_2a_4 + 353\,a_3a_1a_4 + 233\,a_2{}^2a_3a_1 - 248\,a_3a_1{}^3a_2 + 216\,a_2{}^4 + 2432\,a_4{}^2 + a_1{}^4a_2{}^2 - 341\,a_3{}^2a_2 - 56\,a_1{}^4a_4 - 1718\,a_6a_1{}^2 + 273\,a_3{}^2a_1{}^2 - 55\,a_3a_1{}^5 - 320\,a_2a_6 - 134\,a_2{}^3a_1{}^2 - 1472\,a_4a_2{}^2)x^9 + (-4869\,a_4a_3a_2 + 2400\,a_1a_4a_2{}^2 + 1569\,a_3a_1{}^2a_4 - 7968\,a_6a_1a_2 - 420\,a_1{}^3a_4a_2 - 363\,a_3a_1{}^4a_2 - 717\,a_1{}^2a_3a_2{}^2 + 1149\,a_3{}^2a_1a_2 - 1209\,a_3{}^3 + 1209\,a_2{}^3a_3 + 297\,a_3{}^2a_1{}^3 - 66\,a_1{}^6a_3 - 2343\,a_6a_1{}^3 + 57\,a_1{}^3a_2{}^3 - 66\,a_1{}^5a_4 - 960\,a_4{}^2a_1 - 540\,a_1a_2{}^4 + 17745\,a_6a_3)x^{10} + (558\,a_2{}^4a_1{}^2 + 4275\,a_2{}^2a_3{}^2 - 903\,a_1{}^3a_3a_2{}^2 - 408\,a_1{}^4a_2a_4 - 510\,a_3a_1{}^5a_2 - 2832\,a_1{}^2a_4a_2{}^2 - 10680\,a_6a_1{}^2a_2 - 12\,a_1{}^4a_2{}^3 - 78\,a_1{}^6a_4 + 1587\,a_3{}^2a_1{}^2a_2 + 1545\,a_3a_1{}^3a_4 + 18738\,a_3a_1a_6 - 2550\,a_2{}^3a_3a_1 - 1833\,a_3{}^3a_1 - 648\,a_2{}^5 + 5184\,a_2{}^3a_4 + 2400\,a_1{}^2a_4{}^2 - 78\,a_3a_1{}^7 - 10368\,a_2a_4{}^2 - 3678\,a_1{}^4a_6 + 279\,a_3{}^2a_1{}^4 - 17082\,a_3{}^2a_4 - 11952\,a_6a_2{}^2 + 9918\,a_3a_1a_2a_4 + 39504\,a_6a_4)x^{11} + (1836\,a_1a_2{}^5 - 305\,a_2{}^4a_1{}^3 + a_2{}^3a_1{}^5 + 195\,a_3{}^2a_1{}^5 - 91\,a_1{}^7a_4 - 4775\,a_2{}^4a_3 + 1637\,a_3{}^3a_2 + 1072\,a_1{}^3a_4{}^2 + 42675\,a_6a_3a_1{}^2 - 9976\,a_1a_6a_2{}^2 + 1801\,a_1{}^4a_3a_4 + 1385\,a_3{}^2a_1a_2{}^2 - 12640\,a_2{}^3a_4a_1 + 21184\,a_2a_4{}^2a_1 - 600\,a_1{}^5a_4a_2 - 72\,a_1{}^3a_4a_2{}^2 + 34326\,a_2{}^2a_4a_3 - 1632\,a_1{}^4a_3a_2{}^2 - 16392\,a_3{}^2a_1a_4 + 14988\,a_6a_3a_2 - 24668\,a_1{}^3a_2a_6 + 8904\,a_4a_1a_6 - 689\,a_3a_1{}^6a_2 + 2576\,a_3{}^2a_1{}^3a_2 - 61086\,a_4{}^2a_3 - 3055\,a_3{}^3a_1{}^2 - 5368\,a_1{}^5a_6 + 3967\,a_3a_1{}^2a_4a_2 + 149\,a_1{}^2a_2{}^3a_3 - 91\,a_3a_1{}^8)x^{12} + (-2184\,a_1{}^4a_4a_2{}^2 - 3192\,a_1{}^3a_3a_2{}^3 + 8283\,a_1a_3a_2{}^4 - 798\,a_1{}^6a_2a_4 - 7602\,a_3{}^3a_1a_2 + 47592\,a_3{}^2a_2a_4 - 903\,a_3a_1{}^7a_2 - 31998\,a_3{}^2a_4a_1{}^2 + 1893\,a_3a_1{}^5a_4 - 65952\,a_2a_6a_4 - 23034\,a_3a_1a_4{}^2 - 2586\,a_1{}^5a_3a_2{}^2 + 3369\,a_1{}^4a_3{}^2a_2 - 62976\,a_4{}^3 + 5574\,a_3{}^4 + 207432\,a_6{}^2 + 1944\,a_2{}^6 - 19488\,a_2{}^4a_4 + 93\,a_2{}^4a_1{}^4 - 11934\,a_3{}^2a_2{}^3 + 21\,a_3{}^2a_1{}^6 + 12768\,a_3a_1{}^3a_4a_2 + 64224\,a_3a_1{}^3a_6 - 41886\,a_1{}^4a_6a_2 - 69468\,a_1{}^2a_6a_2{}^2 - 27774\,a_3a_1a_4a_2{}^2 + 194820\,a_6a_3a_1a_2 + 56124\,a_6a_1{}^2a_4 + 10800\,a_1{}^2a_2{}^3a_4 - 7776\,a_1{}^2a_2a_4{}^2 + 9546\,a_3{}^2a_1{}^2a_2{}^2 - 2214\,a_1{}^2a_2{}^5 + 62592\,a_2{}^2a_4{}^2 - 4629\,a_3{}^3a_1{}^3 + 1872\,a_1{}^4a_4{}^2 - 7623\,a_1{}^6a_6 - 105\,a_1{}^8a_4 - 198027\,a_6a_3{}^2 + 11136\,a_2{}^3a_6 - 105\,a_3a_1{}^9)x^{13} + (-89916\,a_1{}^2a_4{}^2a_3 - 2928\,a_1{}^5a_4a_2{}^2 - 5262\,a_1{}^4a_2{}^3a_3 + 360378\,a_3a_1{}^2a_2a_6 - 10248\,a_1{}^3a_2{}^3a_4 - 18321\,a_3{}^3a_1{}^2a_2 + 17424\,a_1{}^3a_2a_4{}^2 - 328581\,a_6a_3{}^2a_1 + 15801\,a_2{}^5a_3 + 1968\,a_1{}^5a_4{}^2 - 33612\,a_3{}^3a_2{}^2 - 120\,a_1{}^{10}a_3 - 120\,a_1{}^9a_4 - 6156\,a_2{}^6a_1 - 15\,a_2{}^4a_1{}^5 - 270\,a_3{}^2a_1{}^7 + 13056\,a_1a_4{}^3 + 11592\,a_3{}^4a_1 - 6855\,a_3{}^3a_1{}^4 + 287964\,a_1a_6{}^2 + 133224\,a_3{}^3a_4 - 69459\,a_1{}^5a_6a_2 + 95580\,a_1{}^4a_3a_6 - 102918\,a_3{}^2a_1a_4a_2 + 324048\,a_1a_2a_4a_6 - 10548\,a_1{}^7a_6 + 1473\,a_1{}^3a_2{}^5 + 339138\,a_2{}^2a_6a_3 - 1093131\,a_3a_6a_4 - 3888\,a_1{}^6a_3a_2{}^2 - 1035\,a_1{}^7a_4a_2 - 45720\,a_3{}^2a_1{}^3a_4 - 1155\,a_3a_1{}^8a_2 + 45270\,a_1{}^3a_6a_4 - 126222\,a_1{}^3a_6a_2{}^2 + 15996\,a_1{}^3a_2{}^2a_3{}^2 + 1833\,a_3a_1{}^6a_4 + 50064\,a_1a_4a_2{}^4 + 3762\,a_3{}^2a_1{}^5a_2 - 10008\,a_1{}^2a_3a_2{}^4 - 116352\,a_1a_6a_2{}^3 - 105024\,a_4{}^2a_1a_2{}^2 - 126294\,a_3a_2{}^3a_4 + 25578\,a_3{}^2a_1a_2{}^3 + 252090\,a_2a_4{}^2a_3 + 16833\,a_3a_1{}^4a_2a_4 + 60420\,a_3a_1{}^2a_4a_2{}^2)x^{14} + O(x^{15}))$$

$$[4]_C(x) = (4\,x - 6\,a_1x^2 + (4\,a_1{}^2 - 20\,a_2)x^3 + (-a_1{}^3 + 50\,a_1a_2 - 126\,a_3)x^4 + (-52\,a_1{}^2a_2 + 48\,a_3a_1 + 116\,a_2{}^2 - 408\,a_4)x^5 + (484\,a_2a_3 + 612\,a_1a_4 - 374\,a_1a_2{}^2 - 140\,a_3a_1{}^2 + 28\,a_1{}^3a_2)x^6 + (-1640\,a_3a_1a_2 - 676\,a_2{}^3 - 7020\,a_6 + 2088\,a_3{}^2 - 104\,a_3a_1{}^3 + 2728\,a_2a_4 - 848\,a_4a_1{}^2 + 528\,a_1{}^2a_2{}^2 - 8\,a_1{}^4a_2)x^7 + (554\,a_1{}^2a_2a_3 - 9524\,a_4a_1a_2 - 425\,a_1{}^3a_2{}^2 + a_1{}^5a_2 - 5114\,a_3a_2{}^2 + 18438\,a_4a_3 + 2658\,a_1a_2{}^3 + 322\,a_1{}^3a_4 - 167\,a_1{}^4a_3 + 237\,a_3{}^2a_1 + 3510\,a_1a_6)x^8 + (12368\,a_1{}^2a_2a_4 - 17272\,a_3a_1a_4 + 12160\,a_2{}^2a_3a_1 - 1728\,a_3a_1{}^3a_2 + 3940\,a_2{}^4 + 34136\,a_4{}^2 + 212\,a_1{}^4a_2{}^2 - 8920\,a_3{}^2a_2 - 440\,a_1{}^4a_4 - 18920\,a_6a_1{}^2 + 2740\,a_3{}^2a_1{}^2 - 220\,a_3a_1{}^5 + 8560\,a_2a_6 - 4728\,a_2{}^3a_1{}^2 - 24272\,a_4a_2{}^2)x^9 + (-132808\,a_4a_3a_2 + 89752\,a_1a_4a_2{}^2 + 33060\,a_3a_1{}^2a_4 - 136120\,a_6a_1a_2 - 13632\,a_1{}^3a_4a_2 - 1540\,a_3a_1{}^4a_2 - 19792\,a_1{}^2a_3a_2{}^2 + 31880\,a_3{}^2a_1a_2 - 29880\,a_3{}^3 + 33224\,a_2{}^3a_3 - 66\,a_1{}^5a_2{}^2 + 2706\,a_3{}^2a_1{}^3 - 286\,a_1{}^6a_3 - 9460\,a_6a_1{}^3 + 5008\,a_1{}^3a_2{}^3 - 220\,a_1{}^5a_4 - 66164\,a_4{}^2a_1 - 18278\,a_1a_2{}^4 + 349704\,a_6a_3)x^{10} + (39148\,a_2{}^4a_1{}^2 + 138440\,a_2{}^2a_3{}^2 + 7616\,a_1{}^3a_3a_2{}^2 + 5480\,a_1{}^4a_2a_4 - 2636\,a_3a_1{}^5a_2 - 171568\,a_1{}^2a_4a_2{}^2 + 25616\,a_6a_1{}^2a_2 - 3492\,a_1{}^4a_2{}^3 - 376\,a_1{}^6a_4 + 4332\,a_3{}^2a_1{}^2a_2 - 1896\,a_3a_1{}^3a_4 - 43944\,a_3a_1a_6 - 122640\,a_2{}^3a_3a_1 - 20256\,a_3{}^3a_1 - 22964\,a_2{}^5 + 175472\,a_2{}^3a_4 + 110584\,a_1{}^2a_4{}^2 - 364\,a_3a_1{}^7 - 334360\,a_2a_4{}^2 - 32808\,a_1{}^4a_6 + 3780\,a_3{}^2a_1{}^4 + 12\,a_1{}^6a_2{}^2 - 506928\,a_3{}^2a_4 - 285208\,a_6a_2{}^2 + 442792\,a_3a_1a_2a_4 + 981744\,a_6a_4)x^{11} + (122770\,a_1a_2{}^5 - 51193\,a_2{}^4a_1{}^3 + 1668\,a_2{}^3a_1{}^5 - a_1{}^7a_2{}^2 + 4547\,a_3{}^2a_1{}^5 - 454\,a_1{}^7a_4 - 234614\,a_2{}^4a_3 + 140204\,a_3{}^3a_2 - 84602\,a_1{}^3a_4{}^2 + 974192\,a_6a_3a_1{}^2 + 557708\,a_1a_6a_2{}^2 + 24362\,a_1{}^4a_3a_4 - 224426\,a_3{}^2a_1a_2{}^2 - 814488\,a_2{}^3a_4a_1 + 1294204\,a_2a_4{}^2a_1 - 6752\,a_1{}^5a_4a_2 + 188204\,a_1{}^3a_4a_2{}^2 + 1500028\,a_2{}^2a_4a_3 - 16236\,a_1{}^4a_3a_2{}^2 + 169088\,a_3{}^2a_1a_4 - 334744\,a_6a_3a_2 - 391256\,a_1{}^3a_2a_6 - 1391544\,a_4a_1a_6 - 3728\,a_3a_1{}^6a_2 + 50442\,a_3{}^2a_1{}^3a_2 - 2245612\,a_4{}^2a_3 - 62690\,a_3{}^3a_1{}^2 - 44482\,a_1{}^5a_6 - 451032\,a_3a_1{}^2a_4a_2 + 188212\,a_1{}^2a_2{}^3a_3 - 455\,a_3a_1{}^8)x^{12} + (-170736\,a_1{}^4a_4a_2{}^2 - 216608\,a_1{}^3a_3a_2{}^3 + 987184\,a_1a_3a_2{}^4 - 3512\,a_1{}^6a_2a_4 - 517008\,a_3{}^3a_1a_2 + 3869392\,a_3{}^2a_2a_4 - 5180\,a_3a_1{}^7a_2 - 1017784\,a_3{}^2a_4a_1{}^2 + 19736\,a_3a_1{}^5a_4 - 5463712\,a_2a_6a_4 + 2975584\,a_3a_1a_4{}^2 - 14004\,a_1{}^5a_3a_2{}^2 + 63908\,a_1{}^4a_3{}^2a_2 - 2904688\,a_4{}^3 + 390456\,a_3{}^4 + 8828460\,a_6{}^2 + 133844\,a_2{}^6 - 1249832\,a_2{}^4a_4 + 45500\,a_2{}^4a_1{}^4 - 971464\,a_3{}^2a_2{}^3 + 5208\,a_3{}^2a_1{}^6 - 548\,a_1{}^6a_2{}^3 + 640552\,a_3a_1{}^3a_4a_2 + 770384\,a_3a_1{}^3a_6 - 342696\,a_1{}^4a_6a_2 - 2430888\,a_1{}^2a_6a_2{}^2 - 4675912\,a_3a_1a_4a_2{}^2 + 8068976\,a_6a_3a_1a_2 + 3051920\,a_6a_1{}^2a_4 + 1778032\,a_1{}^2a_2{}^3a_4 - 2209512\,a_1{}^2a_2a_4{}^2 + 497524\,a_3{}^2a_1{}^2a_2{}^2 - 307212\,a_1{}^2a_2{}^5 + 3584136\,a_2{}^2a_4{}^2 - 89536\,a_3{}^3a_1{}^3 + 84672\,a_1{}^4a_4{}^2 - 73040\,a_1{}^6a_6 - 560\,a_1{}^8a_4 - 10553292\,a_6a_3{}^2 + 1278064\,a_2{}^3a_6 - 560\,a_3a_1{}^9)x^{13} + (-6401816\,a_1{}^2a_4{}^2a_3 + 74736\,a_1{}^5a_4a_2{}^2 + 96136\,a_1{}^4a_2{}^3a_3 + 2070568\,a_3a_1{}^2a_2a_6 - 2528912\,a_1{}^3a_2{}^3a_4 - 371700\,a_3{}^3a_1{}^2a_2 + 2917136\,a_1{}^3a_2a_4{}^2 - 3413136\,a_6a_3{}^2a_1 + 120\,a_2{}^3a_1{}^7 + 1567660\,a_2{}^5a_3 - 16400\,a_1{}^5a_4{}^2 - 2945136\,a_3{}^3a_2{}^2 - 680\,a_1{}^{10}a_3 - 680\,a_1{}^9a_4 - 810198\,a_2{}^6a_1 - 28918\,a_2{}^4a_1{}^5 + 5568\,a_3{}^2a_1{}^7 + 6665768\,a_1a_4{}^3 + 463044\,a_3{}^4a_1 - 142692\,a_3{}^3a_1{}^4 - 2569050\,a_1a_6{}^2 + 10863312\,a_3{}^3a_4 - 885120\,a_1{}^5a_6a_2 + 1945784\,a_1{}^4a_3a_6 - 12381000\,a_3{}^2a_1a_4a_2 + 28618640\,a_1a_2a_4a_6 - 110040\,a_1{}^7a_6 + 477020\,a_1{}^3a_2{}^5 + 20805560\,a_2{}^2a_6a_3 - 71500740\,a_3a_6a_4 - 25970\,a_1{}^6a_3a_2{}^2 - 6560\,a_1{}^7a_4a_2 - 591700\,a_3{}^2a_1{}^3a_4 - 7000\,a_3a_1{}^8a_2 - 2052520\,a_1{}^3a_6a_4 + 338700\,a_1{}^3a_6a_2{}^2 + 90738\,a_1{}^3a_2{}^2a_3{}^2 + 27156\,a_3a_1{}^6a_4 + 6652060\,a_1a_4a_2{}^4 + 103548\,a_3{}^2a_1{}^5a_2 - 2009500\,a_1{}^2a_3a_2{}^4 - 8247480\,a_1a_6a_2{}^3 - 15310604\,a_4{}^2a_1a_2{}^2 - 12039656\,a_3a_2{}^3a_4 + 3427920\,a_3{}^2a_1a_2{}^3 + 23077304\,a_2a_4{}^2a_3 - 39104\,a_3a_1{}^4a_2a_4 + 8992148\,a_3a_1{}^2a_4a_2{}^2)x^{14} + O(x^{15}))$$

$$[5]_C(x) = (5\,x - 10\,a_1x^2 + (10\,a_1{}^2 - 40\,a_2)x^3 + (-5\,a_1{}^3 + 140\,a_1a_2 - 310\,a_3)x^4 + (a_1{}^4 - 222\,a_1{}^2a_2 + 306\,a_3a_1 + 376\,a_2{}^2 - 1248\,a_4)x^5 + (2130\,a_2a_3 + 3120\,a_1a_4 - 1740\,a_1a_2{}^2 - 620\,a_3a_1{}^2 + 205\,a_1{}^3a_2)x^6 + (-9540\,a_3a_1a_2 - 3560\,a_2{}^3 - 33480\,a_6 + 10540\,a_3{}^2 - 90\,a_3a_1{}^3 + 14240\,a_2a_4 - 5800\,a_4a_1{}^2 + 3750\,a_1{}^2a_2{}^2 - 120\,a_1{}^4a_2)x^7 + (11090\,a_1{}^2a_2a_3 - 71280\,a_4a_1a_2 - 4965\,a_1{}^3a_2{}^2 + 45\,a_1{}^5a_2 - 33430\,a_3a_2{}^2 + 113570\,a_4a_3 + 20380\,a_1a_2{}^3 + 5580\,a_1{}^3a_4 - 585\,a_1{}^4a_3 - 7075\,a_3{}^2a_1 + 50220\,a_1a_6)x^8 + (156920\,a_1{}^2a_2a_4 - 242530\,a_3a_1a_4 + 135510\,a_2{}^2a_3a_1 - 16760\,a_3a_1{}^3a_2 + 33720\,a_2{}^4 + 257920\,a_4{}^2 + 4485\,a_1{}^4a_2{}^2 - 84400\,a_3{}^2a_2 - 5640\,a_1{}^4a_4 - 165550\,a_6a_1{}^2 + 21935\,a_3{}^2a_1{}^2 - 10\,a_1{}^6a_2 - 695\,a_3a_1{}^5 + 107840\,a_2a_6 - 55390\,a_2{}^3a_1{}^2 - 199360\,a_4a_2{}^2)x^9 + (-1449770\,a_4a_3a_2 + 1138528\,a_1a_4a_2{}^2 + 486728\,a_3a_1{}^2a_4 - 1393120\,a_6a_1a_2 - 246996\,a_1{}^3a_4a_2 + 1987\,a_3a_1{}^4a_2 - 308566\,a_1{}^2a_3a_2{}^2 + 399215\,a_3{}^2a_1a_2 - 311240\,a_3{}^3 + 366610\,a_2{}^3a_3 - 2895\,a_1{}^5a_2{}^2 + 5612\,a_3{}^2a_1{}^3 - 1003\,a_1{}^6a_3 + 74405\,a_6a_1{}^3 + 94757\,a_1{}^3a_2{}^3 + a_1{}^7a_2 + 1994\,a_1{}^5a_4 - 907712\,a_4{}^2a_1 - 229948\,a_1a_2{}^4 + 3370010\,a_6a_3)x^{10} + (753270\,a_2{}^4a_1{}^2 + 1846700\,a_2{}^2a_3{}^2 + 376160\,a_1{}^3a_3a_2{}^2 + 255880\,a_1{}^4a_2a_4 - 14520\,a_3a_1{}^5a_2 - 3313360\,a_1{}^2a_4a_2{}^2 + 2159400\,a_6a_1{}^2a_2 - 113980\,a_1{}^4a_2{}^3 - 2730\,a_1{}^6a_4 - 371960\,a_3{}^2a_1{}^2a_2 - 441040\,a_3a_1{}^3a_4 - 4593000\,a_3a_1a_6 - 2056240\,a_2{}^3a_3a_1 + 87550\,a_3{}^3a_1 - 319400\,a_2{}^5 + 2370880\,a_2{}^3a_4 + 2143200\,a_1{}^2a_4{}^2 - 1365\,a_3a_1{}^7 - 4373120\,a_2a_4{}^2 - 311350\,a_1{}^4a_6 + 24530\,a_3{}^2a_1{}^4 + 1355\,a_1{}^6a_2{}^2 - 6359700\,a_3{}^2a_4 - 3455600\,a_6a_2{}^2 + 7242320\,a_3a_1a_2a_4 + 11571600\,a_6a_4)x^{11} + (2527660\,a_1a_2{}^5 - 1574605\,a_2{}^4a_1{}^3 + 101910\,a_2{}^3a_1{}^5 - 455\,a_1{}^7a_2{}^2 + 26845\,a_3{}^2a_1{}^5 - 1365\,a_1{}^7a_4 - 4151350\,a_2{}^4a_3 + 2845600\,a_3{}^3a_2 - 3246480\,a_1{}^3a_4{}^2 + 16795730\,a_6a_3a_1{}^2 + 15174280\,a_1a_6a_2{}^2 + 529600\,a_1{}^4a_3a_4 - 6460090\,a_3{}^2a_1a_2{}^2 - 16586080\,a_2{}^3a_4a_1 + 25901760\,a_2a_4{}^2a_1 - 236460\,a_1{}^5a_4a_2 + 6183320\,a_1{}^3a_4a_2{}^2 + 25174700\,a_2{}^2a_4a_3 - 426220\,a_1{}^4a_3a_2{}^2 + 10904870\,a_3{}^2a_1a_4 - 11253200\,a_6a_3a_2 - 6613660\,a_1{}^3a_2a_6 -$$

$$35997240\,a_4a_1a_6 - 14560\,a_3a_1{}^6a_2 + 824630\,a_3{}^2a_1{}^3a_2 - 34275900\,a_4{}^2a_3 - 805940\,a_3{}^3a_1{}^2 - 155675\,a_1{}^5a_6 - 15203420\,a_3a_1{}^2a_4a_2 + 5421620\,a_1{}^2a_2{}^3a_3 - 1820\,a_3a_1{}^8)x^{12} + (-8625800\,a_1{}^4a_4a_2{}^2 - 9505320\,a_1{}^3a_3a_2{}^3 + 27447610\,a_1a_3a_2{}^4 + 125010\,a_1{}^6a_2a_4 - 13786350\,a_3{}^3a_1a_2 + 88863700\,a_3{}^2a_2a_4 - 23695\,a_3a_1{}^7a_2 - 26865970\,a_3{}^2a_4a_1{}^2 - 159880\,a_3a_1{}^5a_4 - 123399200\,a_2a_6a_4 + 106179460\,a_3a_1a_4{}^2 + 191660\,a_1{}^5a_3a_2{}^2 + 129470\,a_1{}^4a_3{}^2a_2 - 54156800\,a_4{}^3 + 8438200\,a_3{}^4 + 160871400\,a_6{}^2 + 3025400\,a_2{}^6 + 105\,a_1{}^8a_2{}^2 - 27342240\,a_2{}^4a_4 + 2352345\,a_2{}^4a_1{}^4 - 22578400\,a_3{}^2a_2{}^3 + 37555\,a_3{}^2a_1{}^6 - 69750\,a_1{}^6a_2{}^3 + 25387480\,a_3a_1{}^3a_4a_2 - 6898920\,a_3a_1{}^3a_6 + 3151490\,a_1{}^4a_6a_2 - 61010220\,a_1{}^2a_6a_2{}^2 - 134870100\,a_3a_1a_4a_2{}^2 + 166590400\,a_6a_3a_1a_2 + 92575660\,a_6a_1{}^2a_4 + 57005040\,a_1{}^2a_2{}^3a_4 - 74565600\,a_1{}^2a_2a_4{}^2 + 16023270\,a_3{}^2a_1{}^2a_2{}^2 - 9683070\,a_1{}^2a_2{}^5 + 74501760\,a_2{}^2a_4{}^2 - 548200\,a_3{}^3a_1{}^3 + 4082320\,a_1{}^4a_4{}^2 - 552575\,a_1{}^6a_6 - 2485\,a_1{}^8a_4 - 207597700\,a_6a_3{}^2 + 30214400\,a_2{}^3a_6 - 2380\,a_3a_1{}^9)x^{13} + (-263347340\,a_1{}^2a_4{}^2a_3 + 9019880\,a_1{}^5a_4a_2{}^2 + 11406740\,a_1{}^4a_2{}^3a_3 - 228843790\,a_3a_1{}^2a_2a_6 - 128973800\,a_1{}^3a_2{}^3a_4 + 9331710\,a_3{}^3a_1{}^2a_2 + 150482640\,a_1{}^3a_2a_4{}^2 + 233374975\,a_6a_3{}^2a_1 + 37035\,a_2{}^3a_1{}^7 + 45288850\,a_2{}^5a_3 - 3719360\,a_1{}^5a_4{}^2 - 80621800\,a_3{}^3a_2{}^2 - 3060\,a_1{}^{10}a_3 - 3045\,a_1{}^9a_4 - 27253420\,a_2{}^6a_1 - 2664630\,a_2{}^4a_1{}^5 + 47215\,a_3{}^2a_1{}^7 + 240648960\,a_1a_4{}^3 + 528150\,a_3{}^4a_1 - 1501030\,a_3{}^3a_1{}^4 - 319148100\,a_1a_6{}^2 + 279802100\,a_3{}^3a_4 - 13045275\,a_1{}^5a_6a_2 + 33213975\,a_1{}^4a_3a_6 - 15\,a_1{}^9a_2{}^2 - 441542510\,a_3{}^2a_1a_4a_2 + 889104720\,a_1a_2a_4a_6 - 751025\,a_1{}^7a_6 + 23877645\,a_1{}^3a_2{}^5 + 507161900\,a_2{}^2a_6a_3 - 1705621550\,a_3a_6a_4 - 275940\,a_1{}^6a_3a_2{}^2 - 105875\,a_1{}^7a_4a_2 + 18107430\,a_3{}^2a_1{}^3a_4 - 33275\,a_3a_1{}^8a_2 - 149916450\,a_1{}^3a_6a_4 + 98785930\,a_1{}^3a_6a_2{}^2 - 16824690\,a_1{}^3a_2{}^2a_3{}^2 + 323450\,a_3a_1{}^6a_4 + 221558160\,a_1a_4a_2{}^4 + 1096365\,a_3{}^2a_1{}^5a_2 - 89004920\,a_1{}^2a_3a_2{}^4 - 252639040\,a_1a_6a_2{}^3 - 510340160\,a_4{}^2a_1a_2{}^2 - 337730860\,a_3a_2{}^3a_4 + 125246770\,a_3{}^2a_1a_2{}^3 + 626303540\,a_2a_4{}^2a_3 - 25444220\,a_3a_1{}^4a_2a_4 + 394505500\,a_3a_1{}^2a_4a_2{}^2)x^{14} + O(x^{15}))$$

$$[6]_C(x) = (6\,x - 15\,a_1x^2 + (-70\,a_2 + 20\,a_1{}^2)x^3 + (-645\,a_3 - 15\,a_1{}^3 + 315\,a_1a_2)x^4 + (966\,a_2{}^2 - 672\,a_1{}^2a_2 + 6\,a_1{}^4 + 1026\,a_3a_1 - 3108\,a_4)x^5 + (-a_1{}^5 + 6810\,a_2a_3 + 10878\,a_1a_4 - 5831\,a_1a_2{}^2 - 2211\,a_3a_1{}^2 + 882\,a_1{}^3a_2)x^6 + (-38886\,a_3a_1a_2 - 13446\,a_2{}^3 - 119970\,a_6 + 38700\,a_3{}^2 + 780\,a_3a_1{}^3 + 53388\,a_2a_4 - 26280\,a_4a_1{}^2 + 16932\,a_1{}^2a_2{}^2 - 786\,a_1{}^4a_2)x^7 + (73899\,a_1{}^2a_2a_3 - 351030\,a_4a_1a_2 - 31305\,a_1{}^3a_2{}^2 + 495\,a_1{}^5a_2 - 151047\,a_3a_2{}^2 + 495081\,a_4a_3 + 101235\,a_1a_2{}^3 + 38505\,a_1{}^3a_4 - 2277\,a_1{}^4a_3 - 57222\,a_3{}^2a_1 + 299925\,a_1a_6)x^8 + (1079884\,a_1{}^2a_2a_4 - 1657346\,a_3a_1a_4 + 860068\,a_2{}^2a_3a_1 - 126226\,a_3a_1{}^3a_2 + 187270\,a_2{}^4 + 1337476\,a_4{}^2 + 41140\,a_1{}^4a_2{}^2 - 487330\,a_3{}^2a_2 - 48862\,a_1{}^4a_4 - 1029760\,a_6a_1{}^2 + 142188\,a_3{}^2a_1{}^2 - 220\,a_1{}^6a_2 - 1562\,a_3a_1{}^5 + 679760\,a_2a_6 - 371040\,a_2{}^3a_1{}^2 - 1083592\,a_4a_2{}^2)x^9 + (-9691344\,a_4a_3a_2 + 8364876\,a_1a_4a_2{}^2 + 4217817\,a_3a_1{}^2a_4 - 9417540\,a_6a_1a_2 - 2314302\,a_1{}^3a_4a_2 + 96909\,a_3a_1{}^4a_2 - 2642334\,a_1{}^2a_3a_2{}^2 + 2986773\,a_3{}^2a_1a_2 - 2022720\,a_3{}^3 + 2471988\,a_2{}^3a_3 - 40590\,a_1{}^5a_2{}^2 - 65250\,a_3{}^2a_1{}^3 - 3135\,a_1{}^6a_3 + 1244715\,a_6a_1{}^3 + 879252\,a_1{}^3a_2{}^3 + 66\,a_1{}^7a_2 + 40227\,a_1{}^5a_4 - 6836046\,a_4{}^2a_1 - 1688703\,a_1a_2{}^4 + 21174060\,a_6a_3)x^{10} + (7465812\,a_2{}^4a_1{}^2 + 14723658\,a_2{}^2a_3{}^2 + 4969986\,a_1{}^3a_3a_2{}^2 + 3578514\,a_1{}^4a_2a_4 - 127194\,a_3a_1{}^5a_2 - 33044748\,a_1{}^2a_4a_2{}^2 + 25967226\,a_6a_1{}^2a_2 - 1508748\,a_1{}^4a_2{}^3 - 36096\,a_1{}^6a_4 - 5531676\,a_3{}^2a_1{}^2a_2 - 6478284\,a_3a_1{}^3a_4 - 55378818\,a_3a_1a_6 - 18779916\,a_2{}^3a_3a_1 + 2591808\,a_3{}^3a_1 - 2608326\,a_2{}^5 + 19032984\,a_2{}^3a_4 + 21753708\,a_1{}^2a_4{}^2 - 4344\,a_3a_1{}^7 - 34399188\,a_2a_4{}^2 - 12\,a_1{}^8a_2 - 2876388\,a_1{}^4a_6 + 172404\,a_3{}^2a_1{}^4 + 30924\,a_1{}^6a_2{}^2 - 48784824\,a_3{}^2a_4 - 26464788\,a_6a_2{}^2 + 65548566\,a_3a_1a_2a_4 + 86351784\,a_6a_4)x^{11} + (27401899\,a_1a_2{}^5 - 21519411\,a_2{}^4a_1{}^3 + 1989146\,a_2{}^3a_1{}^5 - 18410\,a_1{}^7a_2{}^2 + 66336\,a_3{}^2a_1{}^5 + 12368\,a_1{}^7a_4 - 40985225\,a_2{}^4a_3 + 29586445\,a_3{}^3a_2 - 47544779\,a_1{}^3a_4{}^2 + 193741239\,a_6a_3a_1{}^2 + 176706614\,a_1a_6a_2{}^2 + 8967058\,a_1{}^4a_3a_4 - 78612709\,a_3{}^2a_1a_2{}^2 - 178730908\,a_2{}^3a_4a_1 + 276752818\,a_2a_4{}^2a_1 - 4516500\,a_1{}^5a_4a_2 + 86351604\,a_1{}^3a_4a_2{}^2 + 241719570\,a_2{}^2a_4a_3 - 7352541\,a_1{}^4a_3a_2{}^2 + 152358807\,a_3{}^2a_1a_4 - 132674700\,a_6a_3a_2 - 79438238\,a_1{}^3a_2a_6 - 416042652\,a_4a_1a_6 - 2090\,a_3a_1{}^6a_2 + 11121197\,a_3{}^2a_1{}^3a_2 - 311640450\,a_4{}^2a_3 - 8639234\,a_3{}^3a_1{}^2 + 1240739\,a_1{}^5a_6 - 203882048\,a_3a_1{}^2a_4a_2 + 69641798\,a_1{}^2a_2{}^3a_3 - 6190\,a_3a_1{}^8 + a_1{}^9a_2)x^{12} + (-169282302\,a_1{}^4a_4a_2{}^2 - 171649470\,a_1{}^3a_3a_2{}^3 +$$

$$370107366\,a_1a_3a_2{}^4 + 4398264\,a_1{}^6a_2a_4 - 188957406\,a_3{}^3a_1a_2 + 1061015688\,a_3{}^2a_2a_4 - 114192\,a_3a_1{}^7a_2 - 426261090\,a_3{}^2a_4a_1{}^2 - 8199648\,a_3a_1{}^5a_4 - 1461349872\,a_2a_6a_4 + 1524508188\,a_3a_1a_4{}^2 + 7556424\,a_1{}^5a_3a_2{}^2 - 8315400\,a_1{}^4a_3{}^2a_2 - 584583720\,a_4{}^3 + 97286640\,a_3{}^4 + 1721929410\,a_6{}^2 + 36329286\,a_2{}^6 + 8556\,a_1{}^8a_2{}^2 - 322399212\,a_2{}^4a_4 + 45359946\,a_2{}^4a_1{}^4 - 272212566\,a_3{}^2a_2{}^3 + 200280\,a_3{}^2a_1{}^6 - 2085924\,a_1{}^6a_2{}^3 + 460923228\,a_3a_1{}^3a_4a_2 - 262469904\,a_3a_1{}^3a_6 + 112755312\,a_1{}^4a_6a_2 - 855901932\,a_1{}^2a_6a_2{}^2 - 1834111830\,a_3a_1a_4a_2{}^2 + 2006950164\,a_6a_3a_1a_2 + 1400901192\,a_6a_1{}^2a_4 + 839436756\,a_1{}^2a_2{}^3a_4 - 1116549096\,a_1{}^2a_2a_4{}^2 + 256765530\,a_3{}^2a_1{}^2a_2{}^2 - 141766464\,a_1{}^2a_2{}^5 + 854473692\,a_2{}^2a_4{}^2 + 2569668\,a_3{}^3a_1{}^3 + 82590378\,a_1{}^4a_4{}^2 - 4838064\,a_1{}^6a_6 - 17136\,a_1{}^8a_4 - 2297290050\,a_6a_3{}^2 + 365195184\,a_2{}^3a_6 - 8568\,a_3a_1{}^9)x^{13} + (-5029927314\,a_1{}^2a_4{}^2a_3 + 260627937\,a_1{}^5a_4a_2{}^2 + 307916007\,a_1{}^4a_2{}^3a_3 - 5642599572\,a_3a_1{}^2a_2a_6 - 2628141786\,a_1{}^3a_2{}^3a_4 + 341151249\,a_3{}^3a_1{}^2a_2 + 3122689506\,a_1{}^3a_2a_4{}^2 + 5983457472\,a_6a_3{}^2a_1 + 1776510\,a_2{}^3a_1{}^7 + 658235598\,a_2{}^5a_3 - 114442227\,a_1{}^5a_4{}^2 - 1136490474\,a_3{}^3a_2{}^2 - 11628\,a_1{}^{10}a_3 - 8568\,a_1{}^9a_4 - 435718455\,a_2{}^6a_1 - 74332455\,a_2{}^4a_1{}^5 + 233172\,a_3{}^2a_1{}^7 + 3864583548\,a_1a_4{}^3 - 109851624\,a_3{}^4a_1 - 15109854\,a_3{}^3a_1{}^4 - 6335435745\,a_1a_6{}^2 + 3790008912\,a_3{}^3a_4 - 231604494\,a_1{}^5a_6a_2 + 583409475\,a_1{}^4a_3a_6 - 3060\,a_1{}^9a_2{}^2 - 7340295090\,a_3{}^2a_1a_4a_2 + 13831602384\,a_1a_2a_4a_6 - 2419032\,a_1{}^7a_6 + 480647910\,a_1{}^3a_2{}^5 + 6811380972\,a_2{}^2a_6a_3 - 22336010406\,a_3a_6a_4 - 7436160\,a_1{}^6a_3a_2{}^2 - 3822132\,a_1{}^7a_4a_2 + 648281151\,a_3{}^2a_1{}^3a_4 - 123624\,a_3a_1{}^8a_2 - 3322437834\,a_1{}^3a_6a_4 + 2286120999\,a_1{}^3a_6a_2{}^2 - 483589929\,a_1{}^3a_2{}^2a_3{}^2 + 8132112\,a_3a_1{}^6a_4 + 3517749354\,a_1a_4a_2{}^4 + 15132516\,a_3{}^2a_1{}^5a_2 - 1661868033\,a_1{}^2a_3a_2{}^4 - 3939702348\,a_1a_6a_2{}^3 - 8065651338\,a_4{}^2a_1a_2{}^2 - 4819765776\,a_3a_2{}^3a_4 + 2098850199\,a_3{}^2a_1a_2{}^3 + 8747290476\,a_2a_4{}^2a_3 - 744139062\,a_3a_1{}^4a_2a_4 + 7416137625\,a_3a_1{}^2a_4a_2{}^2)x^{14} + O(x^{15}))$$

$$[7]_C(x) = (7\,x - 21\,a_1x^2 + (-112\,a_2 + 35\,a_1{}^2)x^3 + (-35\,a_1{}^3 + 616\,a_1a_2 - 1197\,a_3)x^4 + (21\,a_1{}^4 - 1652\,a_1{}^2a_2 + 2625\,a_3a_1 + 2128\,a_2{}^2 - 6720\,a_4)x^5 + (-7\,a_1{}^5 + 17843\,a_2a_3 + 30240\,a_1a_4 - 15848\,a_1a_2{}^2 - 6454\,a_3a_1{}^2 + 2814\,a_1{}^3a_2)x^6 + (-124828\,a_3a_1a_2 + a_1{}^6 - 40816\,a_2{}^3 - 352944\,a_6 + 115254\,a_3{}^2 + 5018\,a_3a_1{}^3 + 161216\,a_2a_4 - 90736\,a_4a_1{}^2 + 57924\,a_1{}^2a_2{}^2 - 3376\,a_1{}^4a_2)x^7 + (325318\,a_1{}^2a_2a_3 - 1316896\,a_4a_1a_2 - 137662\,a_1{}^3a_2{}^2 + 2996\,a_1{}^5a_2 - 533869\,a_3a_2{}^2 + 1710723\,a_4a_3 + 381192\,a_1a_2{}^3 + 176456\,a_1{}^3a_4 - 8995\,a_1{}^4a_3 - 264432\,a_3{}^2a_1 + 1235304\,a_1a_6)x^8 + (5193552\,a_1{}^2a_2a_4 - 7808969\,a_3a_1a_4 + 3909479\,a_2{}^2a_3a_1 - 677628\,a_3a_1{}^3a_2 + 783440\,a_2{}^4 + 5367040\,a_4{}^2 + 237902\,a_1{}^4a_2{}^2 - 2076221\,a_3{}^2a_2 - 282912\,a_1{}^4a_4 - 4803988\,a_6a_1{}^2 + 706580\,a_3{}^2a_1{}^2 - 2002\,a_1{}^6a_2 - 1001\,a_3a_1{}^5 + 3019520\,a_2a_6 - 1759828\,a_2{}^3a_1{}^2 - 4475520\,a_4a_2{}^2)x^9 + (-47259527\,a_4a_3a_2 + 43545152\,a_1a_4a_2{}^2 + 24829161\,a_3a_1{}^2a_4 - 47078528\,a_6a_1a_2 - 14209272\,a_1{}^3a_4a_2 + 846013\,a_3a_1{}^4a_2 - 15273083\,a_1{}^2a_3a_2{}^2 + 15827308\,a_3{}^2a_1a_2 - 9682533\,a_3{}^3 + 12129523\,a_2{}^3a_3 - 316680\,a_1{}^5a_2{}^2 - 731976\,a_3{}^2a_1{}^3 - 10010\,a_1{}^6a_3 + 8921710\,a_6a_1{}^3 + 5336702\,a_1{}^3a_2{}^3 + 1001\,a_1{}^7a_2 + 336700\,a_1{}^5a_4 - 35996800\,a_4{}^2a_1 - 8794184\,a_1a_2{}^4 + 99646659\,a_6a_3)x^{10} + (49002436\,a_2{}^4a_1{}^2 + 83588743\,a_2{}^2a_3{}^2 + 38315053\,a_1{}^3a_3a_2{}^2 + 28950544\,a_1{}^4a_2a_4 - 1090012\,a_3a_1{}^5a_2 - 217937888\,a_1{}^2a_4a_2{}^2 + 183024688\,a_6a_1{}^2a_2 - 11915904\,a_1{}^4a_2{}^3 - 362180\,a_1{}^6a_4 - 42931161\,a_3{}^2a_1{}^2a_2 - 52221939\,a_3a_1{}^3a_4 - 386016582\,a_3a_1a_6 - 116595318\,a_2{}^3a_3a_1 + 22250193\,a_3{}^3a_1 - 15038576\,a_2{}^5 + 108567424\,a_2{}^3a_4 + 145544000\,a_1{}^2a_4{}^2 - 11648\,a_3a_1{}^7 - 193652480\,a_2a_4{}^2 - 364\,a_1{}^8a_2 - 20700876\,a_1{}^4a_6 + 1240722\,a_3{}^2a_1{}^4 + 335426\,a_1{}^6a_2{}^2 - 270147822\,a_3{}^2a_4 - 147285152\,a_6a_2{}^2 + 405348062\,a_3a_1a_2a_4 + 471501408\,a_6a_4)x^{11} + (197159592\,a_1a_2{}^5 - 180295934\,a_2{}^4a_1{}^3 + 20812246\,a_2{}^3a_1{}^5 - 287924\,a_1{}^7a_2{}^2 - 430220\,a_3{}^2a_1{}^5 + 274638\,a_1{}^7a_4 - 276633133\,a_2{}^4a_3 + 204520855\,a_3{}^3a_2 - 413863520\,a_1{}^3a_4{}^2 + 1526225995\,a_6a_3a_1{}^2 + 1310178800\,a_1a_6a_2{}^2 + 91398720\,a_1{}^4a_3a_4 - 599011455\,a_3{}^2a_1a_2{}^2 - 1281460544\,a_2{}^3a_4a_1 + 1974958720\,a_2a_4{}^2a_1 - 47786480\,a_1{}^5a_4a_2 + 732200336\,a_1{}^3a_4a_2{}^2 + 1604792882\,a_2{}^2a_4a_3 - 73624698\,a_1{}^4a_3a_2{}^2 + 1227073330\,a_3{}^2a_1a_4 - 969543428\,a_6a_3a_2 - 646915976\,a_1{}^3a_2a_6 - 3079035792\,a_4a_1a_6 + 676844\,a_3a_1{}^6a_2 + 101108392\,a_3{}^2a_1{}^3a_2 - 2000390714\,a_4{}^2a_3 - 69989122\,a_3{}^3a_1{}^2 +$$

$$22747256\,a_1{}^5a_6 - 1663531723\,a_3a_1{}^2a_4a_2 + 557090023\,a_1{}^2a_2{}^3a_3 - 18746\,a_3a_1{}^8 + 91\,a_1{}^9a_2)x^{12} + (-1859549328\,a_1{}^4a_4a_2{}^2 - 1781278520\,a_1{}^3a_3a_2{}^3 + 3170619277\,a_1a_3a_2{}^4 + 64187452\,a_1{}^6a_2a_4 - 1650614532\,a_3{}^3a_1a_2 + 8360127356\,a_3{}^2a_2a_4 - 897218\,a_3a_1{}^7a_2 - 4214600684\,a_3{}^2a_4a_1{}^2 - 122627512\,a_3a_1{}^5a_4 - 11472655040\,a_2a_6a_4 + 13391160314\,a_3a_1a_4{}^2 + 107778090\,a_1{}^5a_3a_2{}^2 - 138272820\,a_1{}^4a_3{}^2a_2 - 4353090560\,a_4{}^3 + 749401002\,a_3{}^4 + 12775513968\,a_6{}^2 + 288675408\,a_2{}^6 + 202062\,a_1{}^8a_2{}^2 - 2533302464\,a_2{}^4a_4 + 491547182\,a_2{}^4a_1{}^4 - 2159937150\,a_3{}^2a_2{}^3 + 1257396\,a_3{}^2a_1{}^6 - 29488508\,a_1{}^6a_2{}^3 + 4844498344\,a_3a_1{}^3a_4a_2 - 3227911400\,a_3a_1{}^3a_6 + 1383340644\,a_1{}^4a_6a_2 - 7702898280\,a_1{}^2a_6a_2{}^2 - 15756976690\,a_3a_1a_4a_2{}^2 + 16305586948\,a_6a_3a_1a_2 + 13109253640\,a_6a_1{}^2a_4 + 7640970400\,a_1{}^2a_2{}^3a_4 - 10250718016\,a_1{}^2a_2a_4{}^2 + 2492603400\,a_3{}^2a_1{}^2a_2{}^2 - 1286259828\,a_1{}^2a_2{}^5 + 6602675968\,a_2{}^2a_4{}^2 + 75761266\,a_3{}^3a_1{}^3 + 930575968\,a_1{}^4a_4{}^2 - 45767792\,a_1{}^6a_6 - 230510\,a_1{}^8a_4 - 17333176455\,a_6a_3{}^2 + 2901582208\,a_2{}^3a_6 - 14\,a_1{}^{10}a_2 - 27104\,a_3a_1{}^9)x^{13} + (-56531565328\,a_1{}^2a_4{}^2a_3 + 3770132880\,a_1{}^5a_4a_2{}^2 + 4231114738\,a_1{}^4a_2{}^3a_3 - 67472494084\,a_3a_1{}^2a_2a_6 - 30628162928\,a_1{}^3a_2{}^3a_4 + 4667794218\,a_3{}^3a_1{}^2a_2 + 36862688224\,a_1{}^3a_2a_4{}^2 + 71031543474\,a_6a_3{}^2a_1 + 34692078\,a_2{}^3a_1{}^7 + 6125492275\,a_2{}^5a_3 - 1709084512\,a_1{}^5a_4{}^2 - 10371082176\,a_3{}^3a_2{}^2 - 38762\,a_1{}^{10}a_3 + 77512\,a_1{}^9a_4 - 4328791464\,a_2{}^6a_1 - 1056396742\,a_2{}^4a_1{}^5 + 622986\,a_3{}^2a_1{}^7 + 38243054080\,a_1a_4{}^3 - 1760104938\,a_3{}^4a_1 - 164699172\,a_3{}^3a_1{}^4 - 68672490552\,a_1a_6{}^2 + 33692659644\,a_3{}^3a_4 - 3023451894\,a_1{}^5a_6a_2 + 7427032630\,a_1{}^4a_3a_6 - 116072\,a_1{}^9a_2{}^2 - 74741181684\,a_3{}^2a_1a_4a_2 + 135735879520\,a_1a_2a_4a_6 + 19360665\,a_1{}^7a_6 + 5557820318\,a_1{}^3a_2{}^5 + 60694537582\,a_2{}^2a_6a_3 - 195180606705\,a_3a_6a_4 - 134298866\,a_1{}^6a_3a_2{}^2 - 73825850\,a_1{}^7a_4a_2 + 9297080560\,a_3{}^2a_1{}^3a_4 - 113260\,a_3a_1{}^8a_2 - 40504035692\,a_1{}^3a_6a_4 + 27694812876\,a_1{}^3a_6a_2{}^2 - 6530833164\,a_1{}^3a_2{}^2a_3{}^2 + 147107448\,a_3a_1{}^6a_4 + 34795018336\,a_1a_4a_2{}^4 + 212635242\,a_3{}^2a_1{}^5a_2 - 18236855668\,a_1{}^2a_3a_2{}^4 - 38778028992\,a_1a_6a_2{}^3 - 79482270592\,a_4{}^2a_1a_2{}^2 - 44331552034\,a_3a_2{}^3a_4 + 21443400924\,a_3{}^2a_1a_2{}^3 + 79322516350\,a_2a_4{}^2a_3 - 10533651676\,a_3a_1{}^4a_2a_4 + 81874373248\,a_3a_1{}^2a_4a_2{}^2 + a_1{}^{11}a_2)x^{14} + O(x^{15}))$$

$$[8]_C(x) =$$
$$(8\,x - 28\,a_1x^2 + (56\,a_1{}^2 - 168\,a_2)x^3 + (-70\,a_1{}^3 + 1092\,a_1a_2 - 2044\,a_3)x^4 + (56\,a_1{}^4 - 3528\,a_1{}^2a_2 + 4200\,a_2{}^2 + 5712\,a_3a_1 - 13104\,a_4)x^5 + (-28\,a_1{}^5 + 40712\,a_2a_3 + 72072\,a_1a_4 - 37212\,a_1a_2{}^2 - 16128\,a_3a_1{}^2 + 7392\,a_1{}^3a_2)x^6 + (-338272\,a_3a_1a_2 + 8\,a_1{}^6 - 106056\,a_2{}^3 - 898776\,a_6 + 295504\,a_3{}^2 + 18752\,a_3a_1{}^3 + 417360\,a_2a_4 - 259296\,a_4a_1{}^2 + 164016\,a_1{}^2a_2{}^2 - 11160\,a_1{}^4a_2)x^7 + (1115468\,a_1{}^2a_2a_3 - 4079592\,a_4a_1a_2 - a_1{}^7 - 476622\,a_1{}^3a_2{}^2 + 12798\,a_1{}^5a_2 - 1583092\,a_3a_2{}^2 + 4997132\,a_4a_3 + 1182852\,a_1a_2{}^3 + 626292\,a_1{}^3a_4 - 32010\,a_1{}^4a_3 - 920170\,a_3{}^2a_1 + 4044492\,a_1a_6)x^8 + (19618272\,a_1{}^2a_2a_4 - 28903616\,a_3a_1a_4 + 14164000\,a_2{}^2a_3a_1 - 2799488\,a_3a_1{}^3a_2 + 2680264\,a_2{}^4 + 17869488\,a_4{}^2 + 1021848\,a_1{}^4a_2{}^2 - 7171856\,a_3{}^2a_2 - 1227408\,a_1{}^4a_4 - 18000528\,a_6a_1{}^2 + 2796192\,a_3{}^2a_1{}^2 - 11432\,a_1{}^6a_2 + 11424\,a_3a_1{}^5 + 10685280\,a_2a_6 - 6589232\,a_2{}^3a_1{}^2 - 15185568\,a_4a_2{}^2)x^9 + (-184465104\,a_4a_3a_2 + 178302768\,a_1a_4a_2{}^2 + 111307200\,a_3a_1{}^2a_4 - 188392848\,a_6a_1a_2 - 65485728\,a_1{}^3a_4a_2 + 4681576\,a_3a_1{}^4a_2 - 67378512\,a_1{}^2a_3a_2{}^2 + 65728944\,a_3{}^2a_1a_2 - 37309424\,a_3{}^3 + 47554064\,a_2{}^3a_3 - 1714188\,a_1{}^5a_2{}^2 - 4286896\,a_3{}^2a_1{}^3 - 35464\,a_1{}^6a_3 + 44127552\,a_6a_1{}^3 + 24364144\,a_1{}^3a_2{}^3 + 8008\,a_1{}^7a_2 + 1877736\,a_1{}^5a_4 - 148400616\,a_4{}^2a_1 - 36018332\,a_1a_2{}^4 + 380330000\,a_6a_3)x^{10} + (242286408\,a_2{}^4a_1{}^2 + 372530928\,a_2{}^2a_3{}^2 + 210715360\,a_1{}^3a_3a_2{}^2 + 165337008\,a_1{}^4a_2a_4 - 7052048\,a_3a_1{}^5a_2 - 1081596192\,a_1{}^2a_4a_2{}^2 + 938042784\,a_6a_1{}^2a_2 - 67047512\,a_1{}^4a_2{}^3 - 2493024\,a_1{}^6a_4 - 233103744\,a_3{}^2a_1{}^2a_2 - 295063616\,a_3a_1{}^3a_4 - 1953030624\,a_3a_1a_6 - 553600896\,a_2{}^3a_3a_1 + 123960160\,a_3{}^3a_1 - 67740904\,a_2{}^5 + 485579232\,a_2{}^3a_4 + 730374768\,a_1{}^2a_4{}^2 - 23088\,a_3a_1{}^7 - 858458928\,a_2a_4{}^2 - 4368\,a_1{}^8a_2 - 114195480\,a_1{}^4a_6 + 7434352\,a_3{}^2a_1{}^4 + 2328704\,a_1{}^6a_2{}^2 - 1183956576\,a_3{}^2a_4 - 649218864\,a_6a_2{}^2 + 1921028448\,a_3a_1a_2a_4 + 2050115040\,a_6a_4)x^{11} + (1065071812\,a_1a_2{}^5 - 1085236390\,a_2{}^4a_1{}^3 + 145962208\,a_2{}^3a_1{}^5 - 2616068\,a_1{}^7a_2{}^2 - 6409884\,a_3{}^2a_1{}^5 + 2639208\,a_1{}^7a_4 - 1426493420\,a_2{}^4a_3 + 1067888712\,a_3{}^3a_2 - 2556064500\,a_1{}^3a_4{}^2 + 8935218216\,a_6a_3a_1{}^2 + 7193033400\,a_1a_6a_2{}^2 +$$

$$636198632\,a_1{}^4a_3a_4 - 3347921772\,a_3{}^2a_1a_2{}^2 - 6907793328\,a_2{}^3a_4a_1 + 10617306744\,a_2a_4{}^2a_1 - 339106848\,a_1{}^5a_4a_2 + 4442884056\,a_1{}^3a_4a_2{}^2 + 8187935352\,a_2{}^2a_4a_3 - 502892608\,a_1{}^4a_3a_2{}^2 + 7063935720\,a_3{}^2a_1a_4 - 5221412272\,a_6a_3a_2 - 3879001560\,a_1{}^3a_2a_6 - 16902848304\,a_4a_1a_6 + 7226648\,a_3a_1{}^6a_2 + 657226328\,a_3{}^2a_1{}^3a_2 - 9982377944\,a_4{}^2a_3 - 428699192\,a_3{}^3a_1{}^2 + 184606968\,a_1{}^5a_6 - 9782292744\,a_3a_1{}^2a_4a_2 + 3238089848\,a_1{}^2a_2{}^3a_3 - 54028\,a_3a_1{}^8 + 1820\,a_1{}^9a_2)x^{12} + (-13880080320\,a_1{}^4a_4a_2{}^2 - 12751715520\,a_1{}^3a_3a_2{}^3 + 19829971696\,a_1a_3a_2{}^4 + 577047424\,a_1{}^6a_2a_4 - 10490190720\,a_3{}^3a_1a_2 + 49206804896\,a_3{}^2a_2a_4 - 8205232\,a_3a_1{}^7a_2 - 29399313504\,a_3{}^2a_4a_1{}^2 - 1099945344\,a_3a_1{}^5a_4 - 67421805888\,a_2a_6a_4 + 84854707168\,a_3a_1a_4{}^2 + 942782928\,a_1{}^5a_3a_2{}^2 - 1237427280\,a_1{}^4a_3{}^2a_2 - 24745133280\,a_4{}^3 + 4342557424\,a_3{}^4 + 72492575832\,a_6{}^2 + 1712092200\,a_2{}^6 + 2460864\,a_1{}^8a_2{}^2 - 14914591568\,a_2{}^4a_4 + 3632788768\,a_2{}^4a_1{}^4 - 12777071792\,a_3{}^2a_2{}^3 + 9420432\,a_3{}^2a_1{}^6 - 260888768\,a_1{}^6a_2{}^3 + 35060742240\,a_3a_1{}^3a_4a_2 - 24965508032\,a_3a_1{}^3a_6 + 10758913248\,a_1{}^4a_6a_2 - 50268242448\,a_1{}^2a_6a_2{}^2 - 98678484480\,a_3a_1a_4a_2{}^2 + 99059042432\,a_6a_3a_1a_2 + 87636810912\,a_6a_1{}^2a_4 + 49964487328\,a_1{}^2a_2{}^3a_4 - 67402007184\,a_1{}^2a_2a_4{}^2 + 17061282480\,a_3{}^2a_1{}^2a_2{}^2 - 8391537336\,a_1{}^2a_2{}^5 + 38451176976\,a_2{}^2a_4{}^2 + 736724832\,a_3{}^3a_1{}^3 + 7079457312\,a_1{}^4a_4{}^2 - 361677984\,a_1{}^6a_6 - 2569184\,a_1{}^8a_4 - 99283155352\,a_6a_3{}^2 + 17185435488\,a_2{}^3a_6 - 560\,a_1{}^{10}a_2 - 76400\,a_3a_1{}^9)x^{13} + (-439762989728\,a_1{}^2a_4{}^2a_3 + 34925981376\,a_1{}^5a_4a_2{}^2 + 37704128544\,a_1{}^4a_2{}^3a_3 - 535659413152\,a_3a_1{}^2a_2a_6 - 244358065536\,a_1{}^3a_2{}^3a_4 + 39924130608\,a_3{}^3a_1{}^2a_2 + 296849057856\,a_1{}^3a_2a_4{}^2 + 555751229920\,a_6a_3{}^2a_1 + 392259064\,a_2{}^3a_1{}^7 + 41595845912\,a_2{}^5a_3 - 16178692752\,a_1{}^5a_4{}^2 - 69486327104\,a_3{}^3a_2{}^2 - 116520\,a_1{}^{10}a_3 + 1844016\,a_1{}^9a_4 - 30829656540\,a_2{}^6a_1 - 9670817424\,a_2{}^4a_1{}^5 - 2528376\,a_3{}^2a_1{}^7 + 271279470672\,a_1a_4{}^3 - 15553050840\,a_3{}^4a_1 - 1512079968\,a_3{}^3a_1{}^4 - 512638012836\,a_1a_6{}^2 + 221765109920\,a_3{}^3a_4 - 27365821920\,a_1{}^5a_6a_2 + 66073263840\,a_1{}^4a_3a_6 - 1950856\,a_1{}^9a_2{}^2 - 541214145440\,a_3{}^2a_1a_4a_2 + 960685096032\,a_1a_2a_4a_6 + 377277456\,a_1{}^7a_6 + 44097296048\,a_1{}^3a_2{}^5 + 401355651824\,a_2{}^2a_6a_3 - 1272319852424\,a_3a_6a_4 - 1481279496\,a_1{}^6a_3a_2{}^2 - 841247568\,a_1{}^7a_4a_2 + 83535529968\,a_3{}^2a_1{}^3a_4 + 4405392\,a_3a_1{}^8a_2 - 333207143712\,a_1{}^3a_6a_4 + 225042790128\,a_1{}^3a_6a_2{}^2 - 56808492648\,a_1{}^3a_2{}^2a_3{}^2 + 1645258944\,a_3a_1{}^6a_4 + 247114295544\,a_1a_4a_2{}^4 + 2168439216\,a_3{}^2a_1{}^5a_2 - 139218001552\,a_1{}^2a_3a_2{}^4 - 275045685840\,a_1a_6a_2{}^3 - 563036082840\,a_4{}^2a_1a_2{}^2 - 298692162064\,a_3a_2{}^3a_4 + 155517838304\,a_3{}^2a_1a_2{}^3 + 529302227696\,a_2a_4{}^2a_3 - 95511499296\,a_3a_1{}^4a_2a_4 + 627942381456\,a_3a_1{}^2a_4a_2{}^2 + 120\,a_1{}^{11}a_2)x^{14} + O(x^{15}))$$

$$[9]_C(x) = (9\,x - 36\,a_1x^2 + (-240\,a_2 + 84\,a_1{}^2)x^3 + (-3276\,a_3 - 126\,a_1{}^3 + 1800\,a_1a_2)x^4 + (7632\,a_2{}^2 - 6804\,a_1{}^2a_2 + 126\,a_1{}^4 + 11124\,a_3a_1 - 23616\,a_4)x^5 + (-84\,a_1{}^5 + 83844\,a_2a_3 + 153504\,a_1a_4 - 78408\,a_1a_2{}^2 - 35784\,a_3a_1{}^2 + 16926\,a_1{}^3a_2)x^6 + (-808056\,a_3a_1a_2 + 36\,a_1{}^6 - 245232\,a_2{}^3 - 2049840\,a_6 + 676728\,a_3{}^2 + 54612\,a_3a_1{}^3 + 962496\,a_2a_4 - 644976\,a_4a_1{}^2 + 404676\,a_1{}^2a_2{}^2 - 30816\,a_1{}^4a_2)x^7 + (3217428\,a_1{}^2a_2a_3 - 10961568\,a_4a_1a_2 - 9\,a_1{}^7 - 1390590\,a_1{}^3a_2{}^2 + 43362\,a_1{}^5a_2 - 4113612\,a_3a_2{}^2 + 12849732\,a_4a_3 + 3180456\,a_1a_2{}^3 + 1858824\,a_1{}^3a_4 - 99414\,a_1{}^4a_3 - 2663226\,a_3{}^2a_1 + 11274120\,a_1a_6)x^8 + (62187216\,a_1{}^2a_2a_4 - 90005844\,a_3a_1a_4 + 43476540\,a_2{}^2a_3a_1 - 9517056\,a_3a_1{}^3a_2 + 7886800\,a_2{}^4 + 51608832\,a_4{}^2 + a_1{}^8 + 3561054\,a_1{}^4a_2{}^2 - 21221160\,a_3{}^2a_2 - 4322400\,a_1{}^4a_4 - 57053940\,a_6a_1{}^2 + 9253530\,a_3{}^2a_1{}^2 - 48530\,a_1{}^6a_2 + 72726\,a_3a_1{}^5 + 32113920\,a_2a_6 - 20756276\,a_2{}^3a_1{}^2 - 44433024\,a_4a_2{}^2)x^9 + (-609602868\,a_4a_3a_2 + 611184960\,a_1a_4a_2{}^2 + 408650616\,a_3a_1{}^2a_4 - 636474240\,a_6a_1a_2 - 245302776\,a_1{}^3a_4a_2 + 19740834\,a_3a_1{}^4a_2 - 244135836\,a_1{}^2a_3a_2{}^2 + 227781450\,a_3{}^2a_1a_2 - 122152680\,a_3{}^3 + 157657284\,a_2{}^3a_3 - 7211538\,a_1{}^5a_2{}^2 - 18415404\,a_3{}^2a_1{}^3 - 131256\,a_1{}^6a_3 + 172186830\,a_6a_1{}^3 + 90581310\,a_1{}^3a_2{}^3 + 43749\,a_1{}^7a_2 + 8042436\,a_1{}^5a_4 - 511097472\,a_4{}^2a_1 - 123469992\,a_1a_2{}^4 + 1238100084\,a_6a_3)x^{10} + (973390212\,a_2{}^4a_1{}^2 + 1384301664\,a_2{}^2a_3{}^2 + 913834872\,a_1{}^3a_3a_2{}^2 + 738712656\,a_1{}^4a_2a_4 - 35180568\,a_3a_1{}^5a_2 - 4358386656\,a_1{}^2a_4a_2{}^2 + 3850468272\,a_6a_1{}^2a_2 - 296413488\,a_1{}^4a_2{}^3 - 12858876\,a_1{}^6a_4 -$$

$$994794264\,a_3^2a_1^2a_2 - 1304136936\,a_3a_1^3a_4 - 7921145952\,a_3a_1a_6 - 2156490000\,a_2^3a_3a_1 + 531512748\,a_3^3a_1 - 253664496\,a_2^5 + 1809366912\,a_2^3a_4 + 2969020224\,a_1^2a_4^2 - 11934\,a_3a_1^7 - 3178835712\,a_2a_4^2 - 31824\,a_1^8a_2 - 505690236\,a_1^4a_6 + 35817984\,a_3^2a_1^4 + 11963880\,a_1^6a_2^2 - 4348117800\,a_3^2a_4 - 2396562336\,a_6a_2^2 + 7476708240\,a_3a_1a_2a_4 + 7493060448\,a_6a_4)x^{11} + (4652268360\,a_1a_2^5 - 5140295262\,a_2^4a_1^3 + 773279940\,a_2^3a_1^5 - 16625388\,a_1^7a_2^2 - 44981352\,a_3^2a_1^5 + 17109378\,a_1^7a_4 - 6014561868\,a_2^4a_3 + 4534791504\,a_3^3a_2 - 12339512928\,a_1^3a_4^2 + 41704948620\,a_6a_3a_1^2 + 31739687856\,a_1a_6a_2^2 + 3359529396\,a_1^4a_3a_4 - 14956981596\,a_3^2a_1a_2^2 - 30133878336\,a_2^3a_4a_1 + 46242350208\,a_2a_4^2a_1 - 1814146056\,a_1^5a_4a_2 + 21169457424\,a_1^3a_4a_2^2 + 34274083608\,a_2^2a_4a_3 - 2613613680\,a_1^4a_3a_2^2 + 32146237764\,a_3^2a_1a_4 - 22609574784\,a_6a_3a_2 - 18427021992\,a_1^3a_2a_6 - 74634733008\,a_4a_1a_6 + 47552076\,a_3a_1^6a_2 + 3310416468\,a_3^2a_1^3a_2 - 41149505016\,a_4^2a_3 - 2084963556\,a_3^3a_1^2 + 1045296126\,a_1^5a_6 - 45449505288\,a_3a_1^2a_4a_2 + 14927221944\,a_1^2a_2^3a_3 - 163098\,a_3a_1^8 + 18564\,a_1^9a_2)x^{12} + (-78564139920\,a_1^4a_4a_2^2 - 69897402288\,a_1^3a_3a_2^3 + 98318480004\,a_1a_3a_2^4 + 3734034444\,a_1^6a_2a_4 - 52669323108\,a_3^3a_1a_2 + 233023594392\,a_3^2a_2a_4 - 60668802\,a_3a_1^7a_2 - 158420798460\,a_3^2a_4a_1^2 - 7074459108\,a_3a_1^5a_4 - 319095094464\,a_2a_6a_4 + 424192323816\,a_3a_1a_4^2 + 5958374688\,a_1^5a_3a_2^2 - 7812238428\,a_1^4a_3^2a_2 - 114523997184\,a_4^3 + 20334445776\,a_3^4 + 335184948720\,a_6^2 + 8158715856\,a_2^6 + 19629900\,a_1^8a_2^2 - 70712858304\,a_2^4a_4 + 20408409630\,a_2^4a_1^4 - 60728467824\,a_3^2a_2^3 + 64110096\,a_3^2a_1^6 - 1669718376\,a_1^6a_2^3 + 193858647408\,a_3a_1^3a_4a_2 - 143315878896\,a_3a_1^3a_6 + 62188958628\,a_1^4a_6a_2 - 258078914856\,a_1^2a_6a_2^2 - 489662277192\,a_3a_1a_4a_2^2 + 482497184160\,a_6a_3a_1a_2 + 457507542600\,a_6a_1^2a_4 + 256328388000\,a_1^2a_2^3a_4 - 347198412096\,a_1^2a_2a_4^2 + 90486921204\,a_3^2a_1^2a_2^2 - 42971504148\,a_1^2a_2^5 + 180942978816\,a_2^2a_4^2 + 4753812996\,a_3^3a_1^3 + 40660836192\,a_1^4a_4^2 - 2248578900\,a_1^6a_6 - 20193246\,a_1^8a_4 - 461665552752\,a_6a_3^2 + 81776193408\,a_2^3a_6 - 8568\,a_1^{10}a_2 - 186354\,a_3a_1^9)x^{13} + (-2613992513256\,a_1^2a_4^2a_3 + 236197607040\,a_1^5a_4a_2^2 + 247403752272\,a_1^4a_2^3a_3 - 3206887765812\,a_3a_1^2a_2a_6 - 1480459513968\,a_1^3a_2^3a_4 + 250851827448\,a_3^3a_1^2a_2 + 1811262695904\,a_1^3a_2a_4^2 + 3278090355354\,a_6a_3^2a_1 + 3059018964\,a_2^3a_1^7 + 223203104388\,a_2^5a_3 - 111190727808\,a_1^5a_4^2 - 369279788256\,a_3^3a_2^2 - 325890\,a_1^{10}a_3 + 19714050\,a_1^9a_4 - 171537693192\,a_2^6a_1 - 64830969072\,a_2^4a_1^5 - 49265658\,a_3^2a_1^7 + 1505104169472\,a_1a_4^3 - 98043825276\,a_3^4a_1 - 10753957008\,a_3^3a_1^4 - 2938884384600\,a_1a_6^2 + 1163889723672\,a_3^3a_4 - 184320011430\,a_1^5a_6a_2 + 439748656074\,a_1^4a_3a_6 - 19867356\,a_1^9a_2^2 - 3047572195668\,a_3^2a_1a_4a_2 + 5327437379040\,a_1a_2a_4a_6 + 3353605605\,a_1^7a_6 + 266050393470\,a_1^3a_2^5 + 2116326295800\,a_2^2a_6a_3 - 6638547050460\,a_3a_6a_4 - 11383883100\,a_1^6a_3a_2^2 - 6615749394\,a_1^7a_4a_2 + 548126534412\,a_3^2a_1^3a_4 + 55277964\,a_3a_1^8a_2 - 2065474533420\,a_1^3a_6a_4 + 1378417157100\,a_1^3a_6a_2^2 - 364671773460\,a_1^3a_2^2a_3^2 + 12814007220\,a_3a_1^6a_4 + 1372432531680\,a_1a_4a_2^4 + 16116949512\,a_3^2a_1^5a_2 - 815416976736\,a_1^2a_3a_2^4 - 1527395244480\,a_1a_6a_2^3 - 3121686193536\,a_4^2a_1a_2^2 - 1594039316184\,a_3a_2^3a_4 + 876336111756\,a_3^2a_1a_2^3 + 2805473895336\,a_2a_4^2a_3 - 634317916212\,a_3a_1^4a_2a_4 + 3691472095656\,a_3a_1^2a_4a_2^2 + 3060\,a_1^{11}a_2)x^{14} + O(x^{15}))$$

$$[10]_C(x) = (10\,x - 45\,a_1x^2 + (120\,a_1^2 - 330\,a_2)x^3 + (-210\,a_1^3 + 2805\,a_1a_2 - 4995\,a_3)x^4 + (252\,a_1^4 - 12144\,a_1^2a_2 + 19962\,a_3a_1 + 13002\,a_2^2 - 39996\,a_4)x^5 + (-210\,a_1^5 + 159510\,a_2a_3 + 299970\,a_1a_4 - 151965\,a_1a_2^2 - 72375\,a_3a_1^2 + 34980\,a_1^3a_2)x^6 + (-1750830\,a_3a_1a_2 + 120\,a_1^6 - 517770\,a_2^3 - 4285710\,a_6 + 1418580\,a_3^2 + 135840\,a_3a_1^3 + 2028180\,a_2a_4 - 1442760\,a_4a_1^2 + 898920\,a_1^2a_2^2 - 74580\,a_1^4a_2)x^7 + (8161935\,a_1^2a_2a_3 - 26381850\,a_4a_1a_2 - 45\,a_1^7 - 3566310\,a_1^3a_2^2 + 124410\,a_1^5a_2 - 9641985\,a_3a_2^2 + 29892015\,a_4a_3 + 7656165\,a_1a_2^3 + 4828395\,a_1^3a_4 - 272265\,a_1^4a_3 - 6749775\,a_3^2a_1 + 27857115\,a_1a_6)x^8 + (172466580\,a_1^2a_2a_4 - 245878770\,a_3a_1a_4 + 117532740\,a_2^2a_3a_1 - 27890190\,a_3a_1^3a_2 + 20638090\,a_2^4 + 133253340\,a_4^2 + 10\,a_1^8 + 10622040\,a_1^4a_2^2 - 55721550\,a_3^2a_2 - 13014210\,a_1^4a_4 - 158690400\,a_6a_1^2 + 26622390\,a_3^2a_1^2 - 167420\,a_1^6a_2 + 285990\,a_3a_1^5 + 85237680\,a_2a_6 - 57289760\,a_2^3a_1^2 - 115804920\,a_4a_2^2)x^9 + (-1769769840\,a_4a_3a_2 + 1826254452\,a_1a_4a_2^2 + 1288302957\,a_3a_1^2a_4 - 1883091540\,a_6a_1a_2 - 785371554\,a_1^3a_4a_2 + 68793063\,a_3a_1^4a_2 - 761404494\,a_1^2a_3a_2^2 + 686467455\,a_3^2a_1a_2 - a_1^9 - 352167480\,a_3^3 + 458795820\,a_2^3a_3 - 25211076\,a_1^5a_2^2 - 64587087\,a_3^2a_1^3 - 461643\,a_1^6a_3 + 566368935\,a_6a_1^3 + 288252008\,a_1^3a_2^3 + 184646\,a_1^7a_2 + 28474809\,a_1^5a_4 - 1532733378\,a_4^2a_1 - 368899597\,a_1a_2^4 + 3556420020\,a_6a_3)x^{10} + (3335597720\,a_2^4a_1^2 + 4463946150\,a_2^2a_3^2 + 3318197190\,a_1^3a_3a_2^2 + 2747365710\,a_1^4a_2a_4 - 143009070\,a_3a_1^5a_2 - 14972338740\,a_1^2a_4a_2^2 + 13384895550\,a_6a_1^2a_2 - 1093550280\,a_1^4a_2^3 - 53451540\,a_1^6a_4 - 3556646910\,a_3^2a_1^2a_2 - 4803844320\,a_3a_1^3a_4 - 27247212450\,a_3a_1a_6 - 7212353100\,a_2^3a_3a_1 + 1895500800\,a_3^3a_1 - 822697930\,a_2^5 + 5847382440\,a_2^3a_4 + 10272221940\,a_1^2a_4^2 + 167940\,a_3a_1^7 - 10226446860\,a_2a_4^2 - 167950\,a_1^8a_2 - 1880829450\,a_1^4a_6 + 142960680\,a_3^2a_1^4 + 49421180\,a_1^6a_2^2 - 13902287400\,a_3^2a_4 - 7695626700\,a_6a_2^2 + 24997288350\,a_3a_1a_2a_4 + 23884018200\,a_6a_4)x^{11} + (17244755925\,a_1a_2^5 - 20292917850\,a_2^4a_1^3 + 3326041380\,a_2^3a_1^5 - 81874380\,a_1^7a_2^2 - 228084645\,a_3^2a_1^5 + 85191525\,a_1^7a_4 - 21683822975\,a_2^4a_3 + 16420170075\,a_3^3a_2 - 49442726925\,a_1^3a_4^2 + 163211067195\,a_6a_3a_1^2 + 118481555970\,a_1a_6a_2^2 + 14422451745\,a_1^4a_3a_4 - 56338658085\,a_3^2a_1a_2^2 - 111607969860\,a_2^3a_4a_1 + 171111700350\,a_2a_4^2a_1 - 7865189100\,a_1^5a_4a_2 + 83961266580\,a_1^3a_4a_2^2 + 122930046750\,a_2^2a_4a_3 - 11074417455\,a_1^4a_3a_2^2 + 122637289155\,a_3^2a_1a_4 - 82964370900\,a_6a_3a_2 - 73090272240\,a_1^3a_2a_6 - 278889339060\,a_4a_1a_6 + 236224075\,a_3a_1^6a_2 + 13716773310\,a_3^2a_1^3a_2 - 145971144750\,a_4^2a_3 - 8440690335\,a_3^3a_1^2 + 4675607910\,a_1^5a_6 - 176605535370\,a_3a_1^2a_4a_2 + 57671919910\,a_1^2a_2^3a_3 - 545870\,a_3a_1^8 + 125970\,a_1^9a_2)x^{12} + (-361024137570\,a_1^4a_4a_2^2 - 313123399010\,a_1^3a_3a_2^3 + 407576582110\,a_1a_3a_2^4 + 18992962120\,a_1^6a_2a_4 - 220516060050\,a_3^3a_1a_2 + 931973453400\,a_3^2a_2a_4 - 350458250\,a_3a_1^7a_2 - 700843497330\,a_3^2a_4a_1^2 - 35760810330\,a_3a_1^5a_4 - 1276051270800\,a_2a_6a_4 + 1768842671340\,a_3a_1a_4^2 + 29716422540\,a_1^5a_3a_2^2 - 38699380590\,a_1^4a_3^2a_2 - 450802248600\,a_4^3 + 80647871400\,a_3^4 + 1318668461550\,a_6^2 + 32795554890\,a_2^6 + 116387730\,a_1^8a_2^2 - 283206343220\,a_2^4a_4 + 93230499540\,a_2^4a_1^4 - 243543829050\,a_3^2a_2^3 + 358394190\,a_3^2a_1^6 - 8421866820\,a_1^6a_2^3 + 874495788840\,a_3a_1^3a_4a_2 - 662743033680\,a_3a_1^3a_6 + 289476777060\,a_1^4a_6a_2 - 1100884438980\,a_1^2a_6a_2^2 - 2031204578310\,a_3a_1a_4a_2^2 + 1976826268500\,a_6a_3a_1a_2 + 1976035070040\,a_6a_1^2a_4 + 1091704401100\,a_1^2a_2^3a_4 - 1483489568280\,a_1^2a_2a_4^2 + 395153351340\,a_3^2a_1^2a_2^2 - 182734425360\,a_1^2a_2^5 + 720797034180\,a_2^2a_4^2 + 23676063450\,a_3^3a_1^3 + 189022130310\,a_1^4a_4^2 - 11301769440\,a_1^6a_6 - 119637110\,a_1^8a_4 - 1822846179150\,a_6a_3^2 + 328299051600\,a_2^3a_6 - 77520\,a_1^{10}a_2 - 342380\,a_3a_1^9)x^{13} + (-12651637423290\,a_1^2a_4^2a_3 + 1262740831035\,a_1^5a_4a_2^2 + 1291146384445\,a_1^4a_2^3a_3 - 15553636283760\,a_3a_1^2a_2a_6 - 7273435873670\,a_1^3a_2^3a_4 + 1258862475105\,a_3^3a_1^2a_2 + 8948712920910\,a_1^3a_2a_4^2 + 15686380270800\,a_6a_3^2a_1 + 18203919570\,a_2^3a_1^7 + 997372063810\,a_2^5a_3 - 601986478245\,a_1^5a_4^2 - 1638290116350\,a_3^3a_2^2 - 894710\,a_1^{10}a_3 + 144295405\,a_1^9a_4 - 788654091645\,a_2^6a_1 - 344240355030\,a_2^4a_1^5 - 398897265\,a_3^2a_1^7 + 6907408456740\,a_1a_4^3 - 489190967100\,a_3^4a_1 - 60753485115\,a_3^3a_1^4 - 13798994717475\,a_1a_6^2 + 5116675507200\,a_3^3a_4 - 986661822330\,a_1^5a_6a_2 + 2333306723325\,a_1^4a_3a_6 - 143407155\,a_1^9a_2^2 - 14139222785730\,a_3^2a_1a_4a_2 + 24449263010880\,a_1a_2a_4a_6 + 21088415475\,a_1^7a_6 + 1302756648780\,a_1^3a_2^5 + 9342317685300\,a_2^2a_6a_3 - 29075043695850\,a_3a_6a_4 - 67008438980\,a_1^6a_3a_2^2 - 39656316470\,a_1^7a_4a_2 + 2853861795015\,a_3^2a_1^3a_4 + 416752535\,a_3a_1^8a_2 - 10331374888650\,a_1^3a_6a_4 + 6822583376895\,a_1^3a_6a_2^2 - 1867911298470\,a_1^3a_2^2a_3^2 + 76289714955\,a_3a_1^6a_4 + 6302125782550\,a_1a_4a_2^4 + 93084832395\,a_3^2a_1^5a_2 - 3900296961205\,a_1^2a_3a_2^4 - 7015875873660\,a_1a_6a_2^3 - 14318567646630\,a_4^2a_1a_2^2 -$$

$$7094721752880\,a_3{a_2}^3a_4 + 4066812662685\,{a_3}^2a_1{a_2}^3 + 12424289504820\,a_2{a_4}^2a_3 - 3340525669710\,a_3{a_1}^4a_2a_4 + 17709667514385\,a_3{a_1}^2{a_4}^2a_2^2 + 38760\,{a_1}^{11}a_2)x^{14} + O(x^{15}))$$

$$[11]_C(x) = (11\,x - 55\,a_1x^2 + (-440\,a_2 + 165\,{a_1}^2)x^3 + (-330\,{a_1}^3 + 4180\,a_1a_2 - 7315\,a_3)x^4 + (21032\,{a_2}^2 - 20394\,{a_1}^2a_2 + 462\,{a_1}^4 + 33627\,a_3a_1 - 64416\,a_4)x^5 + (-462\,{a_1}^5 + 284845\,a_2a_3 + 547536\,a_1a_4 - 275572\,a_1{a_2}^2 - 135982\,a_3{a_1}^2 + 66759\,{a_1}^3a_2)x^6 + (-3509792\,a_3a_1a_2 + 330\,{a_1}^6 - 1016312\,{a_2}^3 - 8351640\,a_6 + 2769250\,{a_3}^2 + 301840\,a_3{a_1}^3 + 3975136\,a_2a_4 - 2967800\,a_4{a_1}^2 + 1838034\,{a_1}^2{a_2}^2 - 163152\,{a_1}^4a_2)x^7 + (18740018\,{a_1}^2a_2a_3 - 58156560\,a_4a_1a_2 - 165\,{a_1}^7 - 8268975\,{a_1}^3{a_2}^2 + 314820\,{a_1}^5a_2 - 20804179\,a_3{a_2}^2 + 64134917\,a_4a_3 + 16876420\,a_1{a_2}^3 + 11307780\,{a_1}^3a_4 - 670329\,{a_1}^4a_3 - 15456529\,{a_3}^2a_1 + 62637300\,a_1a_6)x^8 + (430442408\,{a_1}^2a_2a_4 - 605883267\,a_3a_1a_4 + 287300981\,{a_2}^2a_3a_1 - 72756992\,a_3{a_1}^3a_2 + 49158120\,{a_2}^4 + 314264192\,{a_4}^2 + 55\,{a_1}^8 + 28086135\,{a_1}^4{a_2}^2 - 133017885\,{a_3}^2a_2 - 34690744\,{a_1}^4a_4 - 397630970\,a_6{a_1}^2 + 68517691\,{a_3}^2{a_1}^2 - 495110\,{a_1}^6a_2 + 896621\,a_3{a_1}^5 + 205078720\,a_2a_6 - 142440650\,{a_2}^3{a_1}^2 - 275018304\,a_4{a_2}^2)x^9 + (-4631040073\,a_4a_3a_2 + 4891476128\,a_1a_4{a_2}^2 + 3602028265\,a_3{a_1}^2a_4 - 5007733280\,a_6a_1a_2 - 2223046716\,{a_1}^3a_4a_2 + 207656317\,a_3{a_1}^4a_2 - 2109932825\,{a_1}^2a_3{a_2}^2 + 1851207391\,{a_3}^2a_1a_2 - 11\,{a_1}^9 - 916629065\,{a_3}^3 + 1202730221\,{a_2}^3a_3 - 76460736\,{a_1}^5{a_2}^2 - 195292801\,{a_3}^2{a_1}^3 - 1476332\,{a_1}^6a_3 + 1634602255\,a_6{a_1}^3 + 811852063\,{a_1}^3{a_2}^3 + 645931\,{a_1}^7a_2 + 87205690\,{a_1}^5a_4 - 4117427776\,{a_4}^2a_1 - 987877572\,a_1{a_2}^4 + 9234122645\,a_6a_3)x^{10} + (10077853218\,{a_2}^4{a_1}^2 + 12846134611\,{a_2}^2{a_3}^2 + 10491803577\,{a_1}^3a_3{a_2}^2 + 8859255032\,{a_1}^4a_2a_4 - 495257746\,a_3{a_1}^5a_2 - 45330844016\,{a_1}^2a_4{a_2}^2 + 40856217912\,a_6{a_1}^2a_2 - 3503763932\,{a_1}^4{a_2}^3 - 188246178\,{a_1}^6a_4 - 11090014669\,{a_3}^2{a_1}^2a_2 - 15362781399\,a_3{a_1}^3a_4 - 82419557166\,a_3a_1a_6 - 21367017926\,{a_2}^3a_3a_1 + 5880231211\,{a_3}^3a_1 + {a_1}^{10} - 2377957944\,{a_2}^5 + 16856768960\,{a_2}^3a_4 + 31284519840\,{a_1}^2{a_4}^2 + 1057854\,a_3{a_1}^7 - 29380273024\,a_2{a_4}^2 - 705300\,{a_1}^8a_2 - 6085100906\,{a_1}^4a_6 + 489659469\,{a_3}^2{a_1}^4 + 172966382\,{a_1}^6{a_2}^2 - 39753213858\,{a_3}^2a_4 - 22083560656\,a_6{a_2}^2 + 74052026254\,a_3a_1a_2a_4 + 68154850608\,a_6a_4)x^{11} + (56083415476\,a_1{a_2}^5 - 69411831159\,{a_2}^4{a_1}^3 + 12175153815\,{a_2}^3{a_1}^5 - 332832192\,{a_1}^7{a_2}^2 - 935403865\,{a_3}^2{a_1}^5 + 348997451\,{a_1}^7a_4 - 68959034771\,{a_2}^4a_3 + 52365404465\,{a_3}^3a_2 - 171161188528\,{a_1}^3{a_4}^2 + 555119217763\,a_6a_3{a_1}^2 + 387345912888\,a_1a_6{a_2}^2 + 52722558647\,{a_1}^4a_3a_4 - 185446427815\,{a_3}^2a_1{a_2}^2 - 362792097184\,{a_2}^3a_4a_1 + 555930106688\,a_2{a_4}^2a_1 - 28979134888\,{a_1}^5a_4a_2 + 288267288584\,{a_1}^3a_4{a_2}^2 + 389457908686\,{a_2}^2a_4a_3 - 40048410820\,{a_1}^4a_3{a_2}^2 + 407490559300\,{a_3}^2a_1a_4 - 267125723700\,a_6a_3a_2 - 251243830596\,{a_1}^3a_2a_6 - 912830920584\,a_4a_1a_6 + 961454175\,a_3{a_1}^6a_2 + 48760764096\,{a_3}^2{a_1}^3a_2 - 458683042774\,{a_4}^2a_3 - 29506983869\,{a_3}^3{a_1}^2 + 17577428088\,{a_1}^5a_6 - 596207355821\,a_3{a_1}^2a_4a_2 + 193834165041\,{a_1}^2{a_2}^3a_3 - 1939916\,a_3{a_1}^8 + 646635\,{a_1}^9a_2)x^{12} + (-1409522575384\,{a_1}^4a_4{a_2}^2 - 1197461276088\,{a_1}^3a_3{a_2}^3 + 1465303137551\,a_1a_3{a_2}^4 + 80318791630\,{a_1}^6a_2a_4 - 799125025182\,{a_3}^3a_1a_2 + 3255703261536\,{a_3}^2a_2a_4 - 1647011289\,a_3{a_1}^7a_2 - 2654146467698\,{a_3}^2a_4{a_1}^2 - 150380657757\,a_3{a_1}^5a_4 - 4458081611104\,a_2a_6a_4 + 6388347784654\,a_3a_1{a_4}^2 + 123617087902\,{a_1}^5a_3{a_2}^2 - 159718749685\,{a_1}^4{a_3}^2a_2 - 1556816538112\,{a_4}^3 + 279927383230\,{a_3}^4 + 4552420502520\,{a_6}^2 + 115031578024\,{a_2}^6 + 553468674\,{a_1}^8{a_2}^2 - 990659731424\,{a_2}^4a_4 + 362260745539\,{a_2}^4{a_1}^4 - 852545019502\,{a_3}^2{a_2}^3 + 1659631545\,{a_3}^2{a_1}^6 - 35375952436\,{a_1}^6{a_2}^3 + 3363262663728\,a_3{a_1}^3a_4a_2 - 2595262447888\,a_3{a_1}^3a_6 + 1140219151654\,{a_1}^4a_6a_2 - 4052681178084\,{a_1}^2a_6{a_2}^2 - 7306673440198\,a_3a_1a_4{a_2}^2 + 7048675509348\,a_6a_3a_1a_2 + 7345649228324\,a_6{a_1}^2a_4 + 4011876574288\,{a_1}^2{a_2}^3a_4 - 5466131657888\,{a_1}^2a_2{a_4}^2 + 1480653144542\,{a_3}^2{a_1}^2{a_2}^2 - 670634549706\,{a_1}^2{a_2}^5 + 2511337811840\,{a_2}^2{a_4}^2 + 97695816361\,{a_3}^3{a_1}^3 + 744962692144\,{a_1}^4{a_4}^2 - 47697099483\,{a_1}^6a_6 - 570331135\,{a_1}^8a_4 - 6308224109275\,a_6{a_3}^2 + 1150307045888\,{a_2}^3a_6 - 497420\,{a_1}^{10}a_2 - 149226\,a_3{a_1}^9)x^{13} + (-52059521078708\,{a_1}^2{a_4}^2a_3 + 5623570568704\,{a_1}^5a_4{a_2}^2 + 5637994268434\,{a_1}^4{a_2}^3a_3 - 63994884906634\,a_3{a_1}^2a_2a_6 - 30291872095672\,{a_1}^3{a_2}^3a_4 +$$

$$5312947873893\,{a_3}^3{a_1}^2a_2 + 37439951401072\,{a_1}^3a_2{a_4}^2 + 63785512561309\,a_6{a_3}^2a_1 + 88143205370\,{a_2}^3{a_1}^7 + 3849066389421\,{a_2}^5a_3 - 2708416559024\,{a_1}^5{a_4}^2 - 6287833837428\,{a_3}^3{a_2}^2 - 2600796\,{a_1}^{10}a_3 + 814289784\,{a_1}^9a_4 - 3114282216980\,{a_2}^6a_1 - 1524685392285\,{a_2}^4{a_1}^5 - 2312857976\,{a_3}^2{a_1}^7 + 27249316613376\,a_1{a_4}^3 - 2046985938228\,{a_3}^4a_1 - 284070199193\,{a_3}^3{a_1}^4 - 55360837606140\,a_1{a_6}^2 + 19504403356064\,{a_3}^3a_4 - 4406331234393\,{a_1}^5a_6a_2 + 10349265504600\,{a_1}^4a_3a_6 - 804028720\,{a_1}^9{a_2}^2 - 56236044962570\,{a_3}^2a_1a_4a_2 + 96458757168048\,a_1a_2a_4a_6 + 105298607271\,{a_1}^7a_6 + 5410856891495\,{a_1}^3{a_2}^5 + 35737236045434\,{a_2}^2a_6a_3 - 110553764297207\,a_3a_6a_4 - 321598898280\,{a_1}^6a_3{a_2}^2 - 193191634669\,{a_1}^7a_4a_2 + 12425555350032\,{a_3}^2{a_1}^3a_4 + 2365023122\,a_3{a_1}^8a_2 - 43657754791398\,{a_1}^3a_6a_4 + 28569873106478\,{a_1}^3a_6{a_2}^2 - 8028998359228\,{a_1}^3{a_2}^2{a_3}^2 + 369664518179\,a_3{a_1}^6a_4 + 24865679979888\,a_1a_4{a_2}^4 + 441000164572\,{a_3}^2{a_1}^5a_2 - 15894570424656\,{a_1}^2a_3{a_2}^4 - 27694235985856\,a_1a_6{a_2}^3 - 56454376949696\,{a_4}^2a_1{a_2}^2 - 27299151044462\,a_3{a_2}^3a_4 + 16175168391558\,{a_3}^2a_1{a_2}^3 + 47627227826882\,a_2{a_4}^2a_3 - 14691646474329\,a_3{a_1}^4a_2a_4 + 72349493206540\,a_3{a_1}^2a_4{a_2}^2 + 319770\,{a_1}^{11}a_2)x^{14} + O(x^{15}))$$

$$[12]_C(x) = (12\,x - 66\,a_1x^2 + (-572\,a_2 + 220\,{a_1}^2)x^3 + (-10362\,a_3 - 495\,{a_1}^3 + 6006\,a_1a_2)x^4 + (32604\,{a_2}^2 - 32604\,{a_1}^2a_2 + 792\,{a_1}^4 + 53856\,a_3a_1 - 99528\,a_4)x^5 + (-924\,{a_1}^5 + 482988\,a_2a_3 + 945516\,a_1a_4 - 473330\,a_1{a_2}^2 - 240636\,a_3{a_1}^2 + 119548\,{a_1}^3a_2)x^6 + (-6603432\,a_3a_1a_2 + 792\,{a_1}^6 - 1879020\,{a_2}^3 - 15356484\,a_6 + 5098104\,{a_3}^2 + 615384\,a_3{a_1}^3 + 7341048\,a_2a_4 - 5703984\,a_4{a_1}^2 + 3514368\,{a_1}^2{a_2}^2 - 329472\,{a_1}^4a_2)x^7 + (39722166\,{a_1}^2a_2a_3 - 119328924\,a_4a_1a_2 - 495\,{a_1}^7 - 17679519\,{a_1}^3{a_2}^2 + 722007\,{a_1}^5a_2 - 41937390\,a_3{a_2}^2 + 128729106\,a_4a_3 + 34621158\,a_1{a_2}^3 + 24373206\,{a_1}^3a_4 - 1510641\,{a_1}^4a_3 - 32654853\,{a_3}^2a_1 + 130530114\,a_1a_6)x^8 + (986331632\,{a_1}^2a_2a_4 - 1373370328\,a_3a_1a_4 + 647072096\,{a_2}^2a_3a_1 - 172856288\,a_3{a_1}^3a_2 + 108399148\,{a_2}^4 + 687771656\,{a_4}^2 + 220\,{a_1}^8 + 67448524\,{a_1}^4{a_2}^2 - 293756936\,{a_3}^2a_2 - 83890664\,{a_1}^4a_4 - 914990648\,a_6{a_1}^2 + 161102964\,{a_3}^2{a_1}^2 - 1299584\,{a_1}^6a_2 + 2426468\,a_3{a_1}^5 + 455575120\,a_2a_6 - 325375336\,{a_2}^3{a_1}^2 - 605077616\,a_4{a_2}^2)x^9 + (-11128367448\,a_4a_3a_2 + 11982172488\,a_1a_4{a_2}^2 + 9139316340\,a_3{a_1}^2a_4 - 12200722248\,a_6a_1a_2 - 5697504384\,{a_1}^3a_4a_2 + 559895028\,a_3{a_1}^4a_2 - 5313523776\,{a_1}^2a_3{a_2}^2 + 4559830440\,{a_3}^2a_1a_2 - 66\,{a_1}^9 - 2193469608\,{a_3}^3 + 2894220120\,{a_2}^3a_3 - 207178686\,{a_1}^5{a_2}^2 - 526402206\,{a_3}^2{a_1}^3 - 4266966\,{a_1}^6a_3 + 4251827580\,a_6{a_1}^3 + 2072049408\,{a_1}^3{a_2}^3 + 1957956\,{a_1}^7a_2 + 238158492\,{a_1}^5a_4 - 10111198812\,{a_4}^2a_1 - 2419303458\,a_1{a_2}^4 + 22059578904\,a_6a_3)x^{10} + (27487717140\,{a_2}^4{a_1}^2 + 33669349848\,{a_2}^2{a_3}^2 + 29687409600\,{a_1}^3a_3{a_2}^2 + 25482031224\,{a_1}^4a_2a_4 - 1509520380\,a_3{a_1}^5a_2 - 123864054288\,{a_1}^2a_4{a_2}^2 + 112300445712\,a_6{a_1}^2a_2 - 10025156700\,{a_1}^4{a_2}^3 - 581544600\,{a_1}^6a_4 - 30996456180\,{a_3}^2{a_1}^2a_2 - 43875152616\,a_3{a_1}^3a_4 - 224787519144\,a_3a_1a_6 - 57343509840\,{a_2}^3a_3a_1 + 16338534528\,{a_3}^3a_1 + 12\,{a_1}^{10} - 6254072604\,{a_2}^5 + 44243928144\,{a_2}^3a_4 + 85910151912\,{a_1}^2{a_4}^2 + 4284660\,a_3{a_1}^7 - 76912667208\,a_2{a_4}^2 - 2495220\,{a_1}^8a_2 - 17580009408\,{a_1}^4a_6 + 1481434308\,{a_3}^2{a_1}^4 + 531294660\,{a_1}^6{a_2}^2 - 103684612752\,{a_3}^2a_4 - 57766390344\,a_6{a_2}^2 + 198757722600\,a_3a_1a_2a_4 + 177506840784\,a_6a_4)x^{11} + (163919352662\,a_1{a_2}^5 - 211436551495\,{a_2}^4{a_1}^3 + 39185573700\,{a_2}^3{a_1}^5 - 1164735325\,{a_1}^7{a_2}^2 - 3278385453\,{a_3}^2{a_1}^5 + 1228692530\,{a_1}^7a_4 - 197872532066\,{a_2}^4a_3 + 150538718660\,{a_3}^3a_2 - 526594157102\,{a_1}^3{a_4}^2 + 1684411879272\,a_6a_3{a_1}^2 + 1136753310212\,a_1a_6{a_2}^2 + 169506844450\,{a_1}^4a_3a_4 - 547144898038\,{a_3}^2a_1{a_2}^2 - 1060052560840\,{a_2}^3a_4a_1 + 1623977549428\,a_2{a_4}^2a_1 - 93776748000\,{a_1}^5a_4a_2 + 880829504100\,{a_1}^3a_4{a_2}^2 + 1114294730868\,{a_2}^2a_4a_3 - 127599714156\,{a_1}^4a_3{a_2}^2 + 1211057810232\,{a_3}^2a_1a_4 - 773443729608\,a_6a_3a_2 - 768898367120\,{a_1}^3a_2a_6 - 2682194604648\,a_4a_1a_6 + 3360297220\,a_3{a_1}^6a_2 - {a_1}^{11} + 153238493570\,{a_3}^2{a_1}^3a_2 - 1304187263940\,{a_4}^2a_3 - 91552139962\,{a_3}^3{a_1}^2 + 57702836438\,{a_1}^5a_6 - 1796292529952\,a_3{a_1}^2a_4a_2 + 581916573932\,{a_1}^2{a_2}^3a_3 - 6760045\,a_3{a_1}^8 + 2704000\,{a_1}^9a_2)x^{12} + (-4827064273296\,{a_1}^4a_4{a_2}^2 - 4031049903168\,{a_1}^3a_3{a_2}^3 +$$

$$4690299712704\,a_1a_3{a_2}^4 + 293400977880\,{a_1}^6a_2a_4 - 2574610003248\,{a_3}^3a_1a_2 + 10179038700144\,{a_3}^2a_2a_4 - 6557246460\,a_3{a_1}^7a_2 - 8864529932280\,{a_3}^2a_4{a_1}^2 - 546634081752\,a_3{a_1}^5a_4 - 13940916067296\,a_2a_6a_4 + 20525061270912\,a_3a_1{a_4}^2 + 445342195644\,{a_1}^5a_3{a_2}^2 - 571000238844\,{a_1}^4a_3{a_2}^2a_2 - 4825935116112\,{a_4}^3 + 870812905512\,{a_3}^4 + 14108948046468\,{a_6}^2 + 360831326844\,{a_2}^6 + 2218433340\,{a_1}^8{a_2}^2 - 3101064270456\,{a_2}^4a_4 + 1235712867420\,{a_2}^4{a_1}^4 - 2669790712536\,{a_3}^2{a_2}^3 + 6556541376\,{a_3}^2{a_1}^6 - 128510987820\,{a_1}^6{a_2}^3 + 11375070570312\,a_3{a_1}^3a_4a_2 - 8900508204720\,a_3{a_1}^3a_6 + 3930397118136\,{a_1}^4a_6a_2 - 13232419719864\,{a_1}^2a_6{a_2}^2 - 23400234982440\,a_3a_1a_4{a_2}^2 + 22425950364720\,a_6a_3a_1a_2 + 24174681798960\,a_6{a_1}^2a_4 + 13076970741072\,{a_1}^2{a_2}^3a_4 - 17857335425976\,{a_1}^2a_2{a_4}^2 + 4901727015204\,{a_3}^2{a_1}^2{a_2}^2 - 2183431280100\,{a_1}^2{a_2}^5 + 7837440255384\,{a_2}^2{a_4}^2 + 348481831632\,{a_3}^3{a_1}^3 + 2571225636672\,{a_1}^4{a_4}^2 - 174531793392\,{a_1}^6a_6 - 2293316520\,{a_1}^8a_4 - 19583395078500\,a_6{a_3}^2 + 3605165259600\,{a_2}^3a_6 - 2496132\,{a_1}^{10}a_2 + 2496120\,a_3{a_1}^9)x^{13} + (-187804401786456\,{a_1}^2{a_4}^2a_3 + 21636536469504\,{a_1}^5a_4{a_2}^2 + 21339794356536\,{a_1}^4{a_2}^3a_3 - 230613121682424\,a_3{a_1}^2a_2a_6 - 110363883564528\,{a_1}^3{a_2}^3a_4 + 19527078061452\,{a_3}^3{a_1}^2a_2 + 136929244625712\,{a_1}^3a_2{a_4}^2 + 227526056678736\,a_6{a_3}^2a_1 + 362683488420\,{a_2}^3{a_1}^7 + 13172821082628\,{a_2}^5a_3 - 10508953605744\,{a_1}^5{a_4}^2 - 21426754796880\,{a_3}^3{a_2}^2 - 8379912\,{a_1}^{10}a_3 + 3776149740\,{a_1}^9a_4 - 10861505728722\,{a_2}^6a_1 - 5839755910230\,{a_2}^4{a_1}^5 - 10802282580\,{a_3}^2{a_1}^7 + 94995180516984\,a_1{a_4}^3 - 7455074373972\,{a_3}^4a_1 - 1138739412012\,{a_3}^3{a_1}^4 - 195510014676702\,a_1{a_6}^2 + 66116921763696\,{a_3}^3a_4 - 17005573802976\,{a_1}^5a_6a_2 + 39722525913960\,{a_1}^4a_3a_6 - 3712854750\,{a_1}^9{a_2}^2 - 197282083086984\,{a_3}^2a_1a_4a_2 + 336284117997168\,a_1a_2a_4a_6 + 442175234688\,{a_1}^7a_6 + 196686075425 40\,{a_1}^3{a_2}^5 + 121499316794664\,{a_2}^2a_6a_3 - 374105850725196\,a_3a_6a_4 - 1313527489506\,{a_1}^6a_3{a_2}^2 - 799039191720\,{a_1}^7a_4a_2 + 46894010822028\,{a_3}^2{a_1}^3a_4 + 10958834220\,a_3{a_1}^8a_2 - 160991226430056\,{a_1}^3a_6a_4 + 104531620908396\,{a_1}^3a_6{a_2}^2 - 29986847294694\,{a_1}^3{a_2}^2{a_3}^2 + 1522124612556\,a_3{a_1}^6a_4 + 86674057393044\,a_1a_4{a_2}^4 + 1783605213180\,{a_3}^2{a_1}^5a_2 - 56877021416124\,{a_1}^2a_3{a_2}^4 - 96579495982728\,a_1a_6{a_2}^3 - 196691731954212\,{a_4}^2a_1a_2^2 - 93215747242680\,a_3{a_2}^3a_4 + 56737098934848\,{a_3}^2a_1{a_2}^3 + 162159451702056\,a_2{a_4}^2a_3 - 55932499972032\,a_3{a_1}^4a_2a_4 + 259437821901492\,a_3{a_1}^2a_4{a_2}^2 + 1961256\,{a_1}^{11}a_2)x^{14} + O(x^{15}))$$

$$[13]_C(x) = (13\,x - 78\,a_1x^2 + (-728\,a_2 + 286\,{a_1}^2)x^3 + (-715\,{a_1}^3 + 8372\,a_1a_2 - 14274\,a_3)x^4 + (1287\,{a_1}^4 - 50050\,{a_1}^2a_2 + 82758\,a_3a_1 + 48776\,{a_2}^2 - 148512\,a_4)x^5 + (-1716\,{a_1}^5 + 784342\,a_2a_3 + 1559376\,a_1a_4 - 777140\,a_1{a_2}^2 - 405236\,a_3{a_1}^2 + 203203\,{a_1}^3a_2)x^6 + (-11785436\,a_3a_1a_2 + 1716\,{a_1}^6 - 3304600\,{a_2}^3 - 26892216\,a_6 + 8935524\,{a_3}^2 + 1171690\,a_3{a_1}^3 + 12898912\,a_2a_4 - 10364120\,a_4{a_1}^2 + 6356922\,{a_1}^2{a_2}^2 - 623480\,{a_1}^4a_2)x^7 + (78848822\,{a_1}^2a_2a_3 - 230656400\,a_4a_1a_2 - 1287\,{a_1}^7 - 35361755\,{a_1}^3{a_2}^2 + 1529671\,{a_1}^5a_2 - 79864226\,a_3{a_2}^2 + 244325094\,a_4a_3 + 66902628\,a_1{a_2}^3 + 49078900\,{a_1}^3a_4 - 3162575\,{a_1}^4a_3 - 64598469\,{a_3}^2a_1 + 255476052\,a_1a_6)x^8 + (2105889032\,{a_1}^2a_2a_4 - 2905149910\,a_3a_1a_4 + 1361601202\,{a_2}^2a_3a_1 - 380318328\,a_3{a_1}^3a_2 + 224117192\,{a_2}^4 + 1413636224\,{a_4}^2 + 715\,{a_1}^8 + 149715995\,{a_1}^4{a_2}^2 - 607978696\,{a_3}^2a_2 - 187333640\,{a_1}^4a_4 - 1961637938\,a_6{a_1}^2 + 351540241\,{a_3}^2{a_1}^2 - 3101384\,{a_1}^6a_2 + 5893823\,a_3{a_1}^5 + 947202880\,a_2a_6 - 692879330\,{a_2}^3{a_1}^2 - 1248812864\,a_4{a_2}^2)x^9 + (-24903074014\,a_4a_3a_2 + 27249138592\,a_1a_4{a_2}^2 + 21402434352\,a_3{a_1}^2a_4 - 27628757728\,a_6a_1a_2 - 13454802348\,{a_1}^3a_4a_2 + 1377729509\,a_3{a_1}^4a_2 - 12364217554\,{a_1}^2a_3{a_2}^2 + 10417041089\,{a_3}^2a_1a_2 - 286\,{a_1}^9 - 4892213664\,{a_3}^3 + 6483883094\,{a_2}^3a_3 - 512214417\,{a_1}^5{a_2}^2 - 1293792240\,{a_3}^2{a_1}^3 - 11238799\,{a_1}^6a_3 + 10159283147\,a_6{a_1}^3 + 4875900315\,{a_1}^3{a_2}^3 + 5299580\,{a_1}^7a_2 + 592663214\,{a_1}^5a_4 - 23043814976\,{a_4}^2a_1 - 5500294020\,a_1{a_2}^4 + 49141028430\,a_6a_3)x^{10} + (68878851210\,{a_2}^4{a_1}^2 + 81611834876\,{a_2}^2{a_3}^2 + 76680218888\,{a_1}^3a_3a_2^2 + 66736596056\,{a_1}^4a_2a_4 - 4146995840\,a_3{a_1}^5a_2 - 310864536112\,{a_1}^2a_4{a_2}^2 + 283108738328\,a_6{a_1}^2a_2 - 26140455900\,{a_1}^4{a_2}^3 - 1615617718\,{a_1}^6a_4 - 79201558176\,{a_3}^2{a_1}^2a_2 - 114206543880\,a_3{a_1}^3a_4 - 562897271976\,a_3a_1a_6 - 141754570464\,{a_2}^3a_3a_1 + 41500827498\,{a_3}^3a_1 + 78\,{a_1}^{10} - 15201118296\,{a_2}^5 + 107369153216\,{a_2}^3a_4 + 216533712928\,{a_1}^2{a_4}^2 + 14088893\,a_3{a_1}^7 - 186265535872\,a_2{a_4}^2 - 7721584\,{a_1}^8a_2 - 46255435122\,{a_1}^4a_6 + 4047927858\,{a_3}^2{a_1}^4 + 1468517375\,{a_1}^6{a_2}^2 - 250365102780\,{a_3}^2a_4 - 139822608016\,a_6{a_2}^2 + 491430993664\,a_3a_1a_2a_4 + 428180893296\,a_6a_4)x^{11} + (438350872596\,a_1{a_2}^5 - 585264451395\,{a_2}^4{a_1}^3 + 113526094370\,{a_2}^3{a_1}^5 - 3613377131\,{a_1}^7{a_2}^2 - 10156845439\,{a_3}^2{a_1}^5 + 3830835125\,{a_1}^7a_4 - 521048658754\,{a_2}^4a_3 + 396917323712\,{a_3}^3a_2 - 1469954121584\,{a_1}^3{a_4}^2 + 4649532661982\,a_6a_3{a_1}^2 + 3049927984376\,a_1a_6{a_2}^2 + 490657293620\,{a_1}^4a_3a_4 - 1474294480022\,{a_3}^2a_1{a_2}^2 - 2834334501024\,{a_2}^3a_4a_1 + 4341761909056\,a_2{a_4}^2a_1 - 272934420980\,{a_1}^5a_4a_2 + 2444587227368\,{a_1}^3a_4{a_2}^2 + 2927640078532\,{a_2}^2a_4a_3 - 366532227516\,{a_1}^4a_3{a_2}^2 + 3282358759706\,{a_3}^2a_1a_4 - 2050577740432\,a_6a_3a_2 - 2137401338852\,{a_1}^3a_2a_6 - 7205173482312\,a_4a_1a_6 + 10402697864\,a_3{a_1}^6a_2 - 13\,{a_1}^{11} + 435216475434\,{a_3}^2{a_1}^3a_2 - 3409908443188\,{a_4}^2a_3 - 257387736008\,{a_3}^3{a_1}^2 + 169788657779\,{a_1}^5a_6 - 4926224717076\,a_3a_1{a_2}^4a_2 + 1591173367004\,{a_1}^2{a_2}^3a_3 - 22016800\,a_3{a_1}^8 + 9656530\,{a_1}^9a_2)x^{12} + (-14841534934296\,{a_1}^4a_4{a_2}^2 - 12216082201048\,{a_1}^3a_3{a_2}^3 + 13630672845662\,a_1a_3{a_2}^4 + 951480579566\,{a_1}^6a_2a_4 - 7522711479138\,{a_3}^3a_1a_2 + 29008072012300\,{a_3}^2{a_2}^2a_4 - 22823541385\,a_3{a_1}^7a_2 - 26689139308894\,{a_3}^2a_4{a_1}^2 - 1765102360732\,a_3{a_1}^5a_4 - 39737600879584\,a_2a_6a_4 + 59838130156588\,a_3a_1{a_4}^2 + 1427206840908\,{a_1}^5a_3{a_2}^2 - 1817020019350\,{a_1}^4{a_3}^2a_2 - 13663120511488\,{a_4}^3 + 2471706469224\,{a_3}^4 + 39939493819032\,{a_6}^2 + {a_1}^{12} + 1031051561736\,{a_2}^6 + 7756927665\,{a_1}^8{a_2}^2 - 8846755034464\,{a_2}^4a_4 + 3786765259295\,{a_2}^4{a_1}^4 - 7618000678000\,{a_3}^2{a_2}^3 + 22715053815\,{a_3}^2{a_1}^6 - 414809438934\,{a_1}^6{a_2}^3 + 34608543503176\,a_3{a_1}^3a_4a_2 - 27383631942808\,a_3{a_1}^3a_6 + 12146055918342\,{a_1}^4a_6a_2 - 39109088375988\,{a_1}^2a_6{a_2}^2 - 68037648932956\,a_3a_1a_4{a_2}^2 + 64872980831264\,a_6a_3a_1a_2 + 71920929632660\,a_6{a_1}^2a_4 + 38588886819344\,{a_1}^2{a_2}^3a_4 - 52797711267360\,{a_1}^2a_2{a_4}^2 + 14648641106890\,{a_3}^2{a_1}^2{a_2}^2 - 6436445627682\,{a_1}^2{a_2}^5 + 22305979472256\,{a_2}^2{a_4}^2 + 1105649303996\,{a_3}^3{a_1}^3 + 7958024848752\,{a_1}^4{a_4}^2 - 567747902015\,{a_1}^6a_6 - 8044421035\,{a_1}^8a_4 - 55503089318052\,a_6{a_3}^2 + 10294211570560\,{a_2}^3a_6 - 10400418\,{a_1}^{10}a_2 + 15600500\,a_3{a_1}^9)x^{13} + (-607584048409364\,{a_1}^2{a_4}^2a_3 + 73843169147592\,{a_1}^5a_4{a_2}^2 + 71830302407396\,{a_1}^4{a_2}^3a_3 - 744950239997522\,a_3{a_1}^2a_2a_6 - 360005857540888\,{a_1}^3{a_2}^3a_4 + 64079632386198\,{a_3}^3{a_1}^2a_2 + 448115236657712\,{a_1}^3a_2{a_4}^2 + 728515471493121\,a_6{a_3}^2a_1 + 1307952527115\,{a_2}^3{a_1}^7 + 40778744334614\,{a_2}^5a_3 - 36122305618880\,{a_1}^5{a_4}^2 - 66103189521096\,{a_3}^3{a_2}^2 - 28973074\,{a_1}^{10}a_3 + 14997585005\,{a_1}^9a_4 - 34159980007764\,{a_2}^6a_1 - 19854987396166\,{a_2}^4{a_1}^5 - 42920605455\,{a_3}^2{a_1}^7 + 298752226223360\,a_1{a_4}^3 - 24249158321622\,{a_3}^4a_1 - 4022128681350\,{a_3}^3{a_1}^4 - 621202350519036\,a_1{a_6}^2 + 203140372291116\,{a_3}^3a_4 - 58210981653201\,{a_1}^5a_6a_2 + 135358326448865\,{a_1}^4a_3a_6 - 14698197735\,{a_1}^9{a_2}^2 - 623498441625618\,{a_3}^2a_1a_4a_2 + 1057561417820336\,a_1a_2a_4a_6 + 1618642816050\,{a_1}^7a_6 + 64033616697635\,{a_1}^3{a_2}^5 + 374214746162660\,{a_2}^2a_6a_3 - 1147979380730442\,a_3a_6a_4 - 4707178723000\,{a_1}^6a_3{a_2}^2 - 2894304393565\,{a_1}^7a_4a_2 + 157418898795938\,{a_3}^2{a_1}^3a_4 + 43406194195\,a_3{a_1}^8a_2 - 530530917335614\,{a_1}^3a_6a_4 + 342142183776198\,{a_1}^3a_6{a_2}^2 - 99792864894294\,{a_1}^3{a_2}^2{a_3}^2 + 5492613887670\,a_3{a_1}^6a_4 + 272490584533232\,a_1a_4{a_2}^4 + 6341435289345\,{a_3}^2{a_1}^5a_2 - 182743968716504\,{a_1}^2a_3{a_2}^4 - 303772018512768\,a_1a_6{a_2}^3 - 618196358596544\,{a_4}^2a_1{a_2}^2 - 288054998699780\,a_3{a_2}^3a_4 + 179277836366382\,{a_3}^2a_1{a_2}^3 + 499971402482396\,a_2{a_4}^2a_3 - 189184998365168\,a_3{a_1}^4a_2a_4 + 835068610163684\,a_3{a_1}^2a_4{a_2}^2 + 9657687\,{a_1}^{11}a_2)x^{14} + O(x^{15}))$$

$$[14]_C(x) = (14\,x - 91\,a_1x^2 + (-910\,a_2 + 364\,{a_1}^2)x^3 + (-19201\,a_3 - 1001\,{a_1}^3 + 11375\,a_1a_2)x^4 + (70798\,{a_2}^2 - 74256\,{a_1}^2a_2 + 2002\,{a_1}^4 + 122850\,a_3a_1 - 215124\,a_4)x^5 + (-3003\,{a_1}^5 +$$

$$1227954\,a_2a_3 + 2473926\,a_1a_4 - 1228227\,a_1{a_2}^2 - 654563\,a_3{a_1}^2 + 330694\,{a_1}^3a_2)x^6 + (-20116902\,a_3a_1a_2 + 3432\,{a_1}^6 - 5570318\,{a_2}^3 - 45177210\,a_6 + 15020668\,{a_3}^2 + 2109588\,a_3{a_1}^3 + 21727004\,a_2a_4 - 17962984\,a_4{a_1}^2 + 10974444\,{a_1}^2{a_2}^2 - 1117974\,{a_1}^4a_2)x^7 + (148153187\,{a_1}^2a_2a_3 - 423896382\,a_4a_1a_2 - 3003\,{a_1}^7 - 66889095\,{a_1}^3{a_2}^2 + 3036033\,{a_1}^5a_2 - 144921595\,a_3{a_2}^2 + 442168181\,a_4a_3 + 122914519\,a_1{a_2}^3 + 93365181\,{a_1}^3a_4 - 6223581\,{a_1}^4a_3 - 120972124\,{a_3}^2a_1 + 474360705\,a_1a_6)x^8 + (4236603644\,{a_1}^2a_2a_4 - 5797901746\,a_3a_1a_4 + 2705435460\,{a_2}^2a_3a_1 - 784756154\,a_3{a_1}^3a_2 + 438722830\,{a_2}^4 + 2754375988\,{a_4}^2 + 2002\,{a_1}^8 + 311223276\,{a_1}^4{a_2}^2 - 1191039850\,{a_3}^2a_2 - 391457430\,{a_1}^4a_4 - 3961790560\,a_6{a_1}^2 + 720487040\,{a_3}^2{a_1}^2 - 6846840\,{a_1}^6a_2 + 13155142\,a_3{a_1}^5 + 1862304080\,a_2a_6 - 1390806144\,{a_2}^3{a_1}^2 - 2441222056\,a_4{a_2}^2)x^9 + (-52459669808\,a_4a_3a_2 + 58193532124\,a_1a_4{a_2}^2 + 46855816553\,a_3{a_1}^2a_4 - 58803149860\,a_6a_1a_2 - 29666291382\,{a_1}^3a_4a_2 + 3143076937\,a_3{a_1}^4a_2 - 26920788622\,{a_1}^2a_3{a_2}^2 + 22331796305\,{a_3}^2a_1a_2 - 1001\,{a_1}^9 - 10277911280\,{a_3}^3 + 13670824804\,{a_2}^3a_3 - 1173638466\,{a_1}^5{a_2}^2 - 2947044100\,{a_3}^2{a_1}^3 - 27290263\,{a_1}^6a_3 + 22615587995\,a_6{a_1}^3 + 10718136156\,{a_1}^3{a_2}^3 + 13085072\,{a_1}^7a_2 + 1365507143\,{a_1}^5a_4 - 49305739574\,{a_4}^2a_1 - 11743034667\,a_1{a_2}^4 + 103147080764\,a_6a_3)x^{10} + (160693621452\,{a_2}^4{a_1}^2 + 185120801138\,{a_2}^2{a_3}^2 + 183506617658\,{a_1}^3a_3{a_2}^2 + 161617594138\,{a_1}^4a_2a_4 - 10453091922\,a_3{a_1}^5a_2 - 726239514364\,{a_1}^2{a_4}{a_2}^2 + 663714451218\,a_6{a_1}^2a_2 - 63068797428\,{a_1}^4{a_2}^3 - 4111347240\,{a_1}^6a_4 - 187750192448\,{a_3}^2{a_1}^2a_2 - 275115005620\,a_3{a_1}^3a_4 - 1311990664530\,a_3a_1a_6 - 326916949996\,{a_2}^3a_3a_1 + 97823313952\,{a_3}^3a_1 + 364\,{a_1}^{10} - 34557776526\,{a_2}^5 + 243782975800\,{a_2}^3a_4 + 507743761980\,{a_1}^2{a_4}^2 + 40406184\,a_3{a_1}^7 - 422226407876\,a_2{a_4}^2 - 21456162\,{a_1}^8a_2 - 112523922784\,{a_1}^4a_6 + 10160981012\,{a_3}^2{a_1}^4 + 3720198664\,{a_1}^6{a_2}^2 - 566179467672\,{a_3}^2a_4 - 316828122884\,a_6{a_2}^2 + 1133626245206\,a_3a_1a_2a_4 + 967561343112\,a_6a_4)x^{11} + (1087346249535\,a_1{a_2}^5 - 1494832223157\,{a_2}^4{a_1}^3 + 301305188366\,{a_2}^3{a_1}^5 - 10152783186\,{a_1}^7{a_2}^2 - 28467270104\,{a_3}^2{a_1}^5 + 10809566586\,{a_1}^7a_4 - 1275659954933\,{a_2}^4a_3 + 972643528129\,{a_3}^3a_2 - 3781652574063\,{a_1}^3{a_4}^2 + 11850808159463\,a_6a_3{a_1}^2 + 7586191870894\,a_1a_6{a_2}^2 + 1301278643392\,{a_1}^4a_3a_4 - 3679949340613\,{a_3}^2a_1{a_2}^2 - 7030204883884\,{a_2}^3a_4a_1 + 10769406624522\,a_2{a_4}^2a_1 - 727238170932\,{a_1}^5a_4a_2 + 6257862736580\,{a_1}^3a_4{a_2}^2 + 7154864088554\,{a_2}^2a_4a_3 - 965712848737\,{a_1}^4a_3{a_2}^2 + 8232606595031\,{a_3}^2a_1a_4 - 5046844108124\,a_6a_3a_2 - 5480035873858\,{a_1}^3a_2a_6 - 17942973540492\,a_4a_1a_6 + 29160920698\,a_3{a_1}^6a_2 - 91\,{a_1}^{11} + 1135767321143\,{a_3}^2{a_1}^3a_2 - 8301296306394\,{a_4}^2a_3 - 666118925108\,{a_3}^3{a_1}^2 + 456365103649\,{a_1}^5a_6 - 12482514298436\,a_3{a_1}^2a_4a_2 + 4021842061510\,{a_1}^2{a_2}^3a_3 - 66028599\,a_3{a_1}^8 + 30415567\,{a_1}^9a_2)x^{12} + (-41693940123542\,{a_1}^4a_4{a_2}^2 - 33896887873366\,{a_1}^3a_3{a_2}^3 + 36506619228198\,a_1a_3{a_2}^4 + 2795324592928\,{a_1}^6a_2a_4 - 20239881080118\,{a_3}^3a_1a_2 + 76416023845672\,{a_3}^2a_2a_4 - 71121086876\,a_3{a_1}^7a_2 - 73650225942706\,{a_3}^2a_4{a_1}^2 - 5166224369068\,a_3{a_1}^5a_4 - 104705449073456\,a_2a_6a_4 + 160704621276892\,a_3a_1{a_4}^2 + 4150325264960\,{a_1}^5a_3{a_2}^2 - 5250295327228\,{a_1}^4{a_3}^2a_2 - 35809006859528\,{a_4}^3 + 6490121809696\,{a_3}^4 + 104665548853530\,{a_6}^2 + 14\,{a_1}^{12} + 2722112079246\,{a_2}^6 + 24255111510\,{a_1}^8{a_2}^2 - 23326562787836\,{a_2}^4a_4 + 10607833334350\,{a_2}^4{a_1}^4 - 20088598688494\,{a_3}^2{a_2}^3 + 70561579984\,{a_3}^2{a_1}^6 - 1213797092424\,{a_1}^6{a_2}^3 + 96355470361780\,a_3{a_1}^3a_4a_2 - 76945878042096\,a_3{a_1}^3a_6 + 34261099305272\,{a_1}^4a_6a_2 - 106271931253404\,{a_1}^2a_6{a_2}^2 - 182306886682662\,a_3a_1a_4{a_2}^2 + 173119508191924\,a_6a_3a_1a_2 + 196525296369640\,a_6{a_1}^2a_4 + 104708452960804\,{a_1}^2{a_2}^3a_4 - 143506831784232\,{a_1}^2a_2{a_4}^2 + 40167974053998\,{a_3}^2{a_1}^2{a_2}^2 - 17448771121488\,{a_1}^2{a_2}^5 + 58704727799340\,{a_2}^2{a_4}^2 + 3184816587176\,{a_3}^3{a_1}^3 + 22483272740530\,{a_1}^4{a_4}^2 - 1673868637280\,{a_1}^6a_6 - 25229598408\,{a_1}^8a_4 - 145579788220762\,a_6{a_3}^2 + 27162176816432\,{a_2}^3a_6 - 37440704\,{a_1}^{10}a_2 + 64480318\,a_3{a_1}^9)x^{13} + (-1793413292124146\,{a_1}^2{a_4}^2a_3 +$$

$$228020039985197\,{a_1}^5a_4{a_2}^2 + 219195589672187\,{a_1}^4{a_2}^3a_3 - 2195169987108652\,a_3{a_1}^2a_2a_6 - 1070067796700738\,{a_1}^3{a_2}^3a_4 + 191272801842393\,{a_3}^3{a_1}^2a_2 + 1335696276841674\,{a_1}^3a_2{a_4}^2 + 2130327974954464\,a_6{a_3}^2a_1 - {a_1}^{13} + 4229303866392\,{a_2}^3{a_1}^7 + 115942786415638\,{a_2}^5a_3 - 112223932161839\,{a_1}^5{a_4}^2 - 187424424635266\,{a_3}^3{a_2}^2 - 100291041\,{a_1}^{10}a_3 + 52519237980\,{a_1}^9a_4 - 98438337461907\,{a_2}^6a_1 - 61112001497877\,{a_2}^4{a_1}^5 - 149987475728\,{a_3}^2{a_1}^7 + 861099931488972\,a_1{a_4}^3 - 71788196553936\,{a_3}^4a_1 - 12783598560268\,{a_3}^3{a_1}^4 - 1805481768093525\,a_1{a_6}^2 + 574088250178352\,{a_3}^3a_4 - 180242120301030\,{a_1}^5a_6a_2 + 417529570142319\,{a_1}^4a_3a_6 - 51330461383\,{a_1}^9{a_2}^2 - 1804199346913058\,{a_3}^2a_1a_4a_2 + 3047963415567600\,a_1a_2a_4a_6 + 5295735517210\,{a_1}^7a_6 + 190009564991810\,{a_1}^3{a_2}^5 + 1059728959731260\,{a_2}^2a_6a_3 - 3241278814054190\,a_3a_6a_4 - 15137940754980\,{a_1}^6a_3{a_2}^2 - 9394409407172\,{a_1}^7a_4a_2 + 479194701781767\,{a_3}^2{a_1}^3a_4 + 151504024732\,a_3{a_1}^8a_2 - 1590762650122650\,{a_1}^3a_6a_4 + 1019824241978575\,{a_1}^3a_6{a_2}^2 - 301550636444835\,{a_1}^3{a_2}^2{a_3}^2 + 17769807762482\,a_3{a_1}^6a_4 + 785031499555650\,a_1a_4{a_2}^4 + 20259533750082\,{a_3}^2{a_1}^5a_2 - 536207050690001\,{a_1}^2a_3{a_2}^4 - 875528748256300\,a_1a_6{a_2}^3 - 1780712605843586\,{a_4}^2a_1{a_2}^2 - 817848552727024\,a_3{a_2}^3a_4 + 518643838796731\,{a_3}^2a_1{a_2}^3 + 1416959824436156\,a_2{a_4}^2a_3 - 579688454689142\,a_3{a_1}^4a_2a_4 + 2454106514205841\,a_3{a_1}^2a_4{a_2}^2 + 40116390\,{a_1}^{11}a_2)x^{14} + O(x^{15}))$$

9.2. $F_C(x,y)$ **for** $C : y^2 = x^3 + \frac{1}{4}b_2x^2 + \frac{1}{2}b_4x + \frac{1}{4}b_6$ **over** $\mathbb{Z}[\frac{1}{2}, b_2, b_4, b_6]$ **with coordinate** $z = -\frac{x}{y}$**.**

```
> restart: with(powseries):
> m:=35:
> Order:=m:
> assign({a[1]=0,a[2]=b[2]/4,a[3]=0,a[4]=b[4]/2,a[6]=b[6]/4});
> z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3;
> simplify(mtaylor(subs(w=z^3 + a[1]*z*w + a[2]*z^2*w
  + a[3]*w^2 + a[4]*z*w^2 + a[6]*w^3, %),[z,w],m)): # O(4)
> simplify(mtaylor(subs(w=z^3 + a[1]*z*w + a[2]*z^2*w
  + a[3]*w^2 + a[4]*z*w^2 + a[6]*w^3, %),[z,w],m)): # O(5)
> ... repeat this 37 times ...
> simplify(mtaylor(subs(w=z^3 + a[1]*z*w + a[2]*z^2*w
  + a[3]*w^2 + a[4]*z*w^2 + a[6]*w^3, %),[z,w],m)): # O(37)
> series(%,z);
> # hard code the result so we don't have to do this again!
> w:=z->1*z^3+1/4*b[2]*z^5+(1/2*b[4]+1/16*b[2]^2)*z^7+...;
> x:=z->z/w(z);
> y:=z->-1/w(z);
> # the invariant differential
> simplify(series((diff( simplify(series(x(z),z)), z))
  / (2*y(z) + a[1]*x(z) + a[3]), z));
> # hard code the invariant differential
> eta_a:=z->1+1/4*b[2]*z^2+(b[4]+1/16*b[2]^2)*z^4+...;
> latex(%);
> f:=x->add(coeff(eta_a(x),x,i-1)*x^i/i,i=1..(m-1));
> latex(series(f(x),x,m));
> log_C:=powpoly(f(x),x);
> exp_C:=reversion(log_C);
> simplify(tpsform(exp_C,x,28));
> latex(%);
> # hard code the exponential
> e:=x->1*x+(-1/12*b[2])*x^3+(1/120*b[2]^2-1/5*b[4])*x^5+...;
> F_C:=(x,y)->sort(simplify(mtaylor(e(f(x)+f(y)),
  [x,y],28)),[x,y]);
> F_C(x,y);
> latex(%);
> # hard code the result
> F:=(x,y)->-495/512*b[2]*b[6]^4*x^26*y-...;
> # reduce mod 3
> sort(F(x,y) mod 3,[x,y]);
> latex(%);
> simplify(series(e(3*f(x)),x,28)) mod 3;
> # compare n-series results to Rezk, p.33
> simplify(series(e(3*f(x)),x,28)) mod 3;
> for n from 2 to 27 do print(n);
```



```
  latex(simplify(series(e(n*f(x)),x,28))); od;
```

The results of these computations are that the invariant differential $\eta_{\vec{a}}$ equals

$$1 + 1/4\,b_2z^2 + (b_4 + 1/16\,{b_2}^2)z^4 + (3/4\,b_4b_2 + 3/4\,b_6 + \tfrac{1}{64}\,{b_2}^3)z^6 + (3/2\,{b_4}^2 + 3/8\,b_4{b_2}^2 + 3/4\,b_6b_2 + \tfrac{1}{256}\,{b_2}^4)z^8 + (\tfrac{15}{8}\,{b_4}^2b_2 + \tfrac{5}{32}\,b_4{b_2}^3 + 5/2\,b_6b_4 + \tfrac{15}{32}\,b_6{b_2}^2 + \tfrac{1}{1024}\,{b_2}^5)z^{10} + (\tfrac{15}{4}\,b_2b_6b_4 + \tfrac{15}{256}\,b_4{b_2}^4 + \tfrac{15}{16}\,{b_6}^2 + 5/2\,{b_4}^3 + \tfrac{15}{64}\,b_6{b_2}^3 + \tfrac{45}{32}\,{b_4}^2{b_2}^2 + \tfrac{1}{4096}\,{b_2}^6)z^{12} + (\tfrac{105}{16}\,{b_4}^2b_6 + \tfrac{105}{64}\,b_2{b_6}^2 + \tfrac{105}{128}\,{b_4}^2{b_2}^3 + \tfrac{21}{1024}\,b_4{b_2}^5 + \tfrac{1}{16384}\,{b_2}^7 + \tfrac{105}{1024}\,b_6{b_2}^4 + \tfrac{35}{8}\,{b_4}^3b_2 + \tfrac{105}{32}\,b_4{b_2}^2b_6)z^{14} + (\tfrac{21}{4}\,b_4{b_6}^2 + \tfrac{1}{65536}\,{b_2}^8 + \tfrac{35}{8}\,{b_4}^3{b_2}^2 + \tfrac{105}{8}\,b_6{b_2}b_4^2 + \tfrac{35}{16}\,b_4{b_2}^3b_6 + \tfrac{105}{256}\,{b_2}^4{b_4}^2 + \tfrac{21}{512}\,{b_2}^5b_6 + \tfrac{105}{64}\,{b_6}^2{b_2}^2 + \tfrac{35}{8}\,{b_4}^4 + \tfrac{7}{1024}\,{b_2}^6b_4)z^{16} + (\tfrac{1}{262144}\,{b_2}^9 + \tfrac{21}{16}\,{b_6}^3 + \tfrac{63}{4}\,{b_4}^3b_6 + \tfrac{945}{64}\,{b_4}^2{b_6}{b_2}^2 + \tfrac{315}{256}\,b_4b_6{b_2}^4 + \tfrac{315}{32}\,{b_4}^4b_2 + \tfrac{315}{256}\,{b_6}^2{b_2}^3 + \tfrac{189}{16}\,{b_6}^2b_2b_4 + \tfrac{9}{4096}\,{b_2}^7b_4 + \tfrac{189}{1024}\,{b_2}^5{b_4}^2 + \tfrac{105}{32}\,{b_2}^3{b_4}^3 + \tfrac{63}{4096}\,{b_2}^6b_6)z^{18} + (\tfrac{315}{16}\,{b_4}^2{b_6}^2 + \tfrac{945}{64}\,b_4{b_6}^2{b_2}^2 + \tfrac{1575}{128}\,{b_4}^2b_6{b_2}^3 + \tfrac{315}{512}\,{b_2}^5b_6b_4 + \tfrac{1575}{128}\,{b_2}^2{b_4}^4 + \tfrac{525}{256}\,{b_2}^4{b_4}^3 + \tfrac{45}{8192}\,{b_2}^7b_6 + \tfrac{1575}{2048}\,{b_6}^2{b_2}^4 + \tfrac{105}{32}\,b_2{b_6}^3 + \tfrac{315}{8}\,b_6b_2b_4^3 + \tfrac{63}{8}\,{b_4}^5 + \tfrac{45}{65536}\,{b_2}^8b_4 + \tfrac{1}{1048576}\,{b_2}^{10} + \tfrac{315}{4096}\,{b_2}^6{b_6}^2)z^{20} + (\tfrac{1155}{256}\,{b_6}^3{b_2}^2 + \tfrac{165}{16}\,{b_6}^3b_4 + \tfrac{1}{4194304}\,{b_2}^{11} + \tfrac{1155}{32}\,b_6{b_4}^4 + \tfrac{3465}{256}\,b_4{b_6}^2{b_2}^3 + \tfrac{17325}{2048}\,{b_4}^2b_6{b_2}^4 + \tfrac{3465}{64}\,b_6{b_4}^3{b_2}^2 + \tfrac{495}{16384}\,{b_2}^7{b_4}^2 + \tfrac{495}{262144}\,{b_2}^8b_6 + \tfrac{3465}{64}\,{b_6}^2{b_2}{b_4}^2 + \tfrac{3465}{8192}\,{b_2}^5{b_6}^2 + \tfrac{5775}{512}\,{b_2}^3{b_4}^4 + \tfrac{693}{32}\,b_2{b_4}^5 + \tfrac{1155}{1024}\,{b_2}^5{b_4}^3 + \tfrac{1155}{4096}\,{b_2}^6b_6b_4 + \tfrac{55}{262144}\,{b_2}^9b_4)z^{22} + (\tfrac{495}{256}\,{b_6}^4 + \tfrac{495}{16}\,b_2{b_6}^3b_4 + \tfrac{33}{524288}\,{b_2}^{10}b_4 + \tfrac{1}{16777216}\,{b_2}^{12} + \tfrac{3465}{64}\,b_6{b_4}^3{b_2}^3 + \tfrac{3465}{32}\,b_6{b_4}^4b_2 + \tfrac{1155}{256}\,{b_6}^3{b_2}^3 + \tfrac{495}{8}\,{b_6}^2{b_4}^3 + \tfrac{10395}{1024}\,b_4{b_6}^2{b_2}^4 + \tfrac{10395}{128}\,{b_6}^2{b_4}^2{b_2}^2 + \tfrac{1485}{131072}\,{b_2}^8{b_4}^2 + \tfrac{1155}{2048}\,{b_2}^6{b_4}^3 + \tfrac{165}{262144}\,{b_2}^9b_6 + \tfrac{3465}{16384}\,{b_2}^6{b_6}^2 + \tfrac{2079}{64}\,{b_2}^2{b_4}^5 + \tfrac{17325}{2048}\,{b_2}^4{b_4}^4 + \tfrac{10395}{2048}\,{b_2}^5b_6{b_4}^2 + \tfrac{495}{4096}\,b_4{b_2}^7b_6 + \tfrac{231}{16}\,{b_4}^6)z^{24} + (\tfrac{1287}{16}\,b_6{b_4}^5 + \tfrac{9009}{256}\,{b_2}^3{b_4}^5 + \tfrac{3003}{64}\,b_2{b_4}^6 + \tfrac{45045}{1024}\,{b_2}^4b_6{b_4}^3 + \tfrac{27027}{4096}\,{b_6}^2b_4{b_2}^5 + \tfrac{45045}{256}\,b_6{b_4}^4{b_2}^2 + \tfrac{6435}{65536}\,{b_2}^7{b_6}^2 + \tfrac{45045}{16384}\,{b_2}^6b_6b_4^2 + \tfrac{6435}{128}\,{b_4}^2{b_6}^3 + \tfrac{6435}{32}\,{b_4}^3b_6{b_2}^2 + \tfrac{6435}{1024}\,b_2{b_6}^4 + \tfrac{1}{67108864}\,{b_2}^{13} + \tfrac{45045}{512}\,{b_6}^2{b_4}^2{b_2}^3 + \tfrac{15015}{4096}\,{b_6}^3{b_2}^4 + \tfrac{6435}{128}\,b_4{b_6}^3{b_2}^2 + \tfrac{39}{2097152}\,{b_2}^{11}b_4 + \tfrac{2145}{524288}\,{b_2}^9{b_4}^2 + \tfrac{45045}{8192}\,{b_4}^4{b_2}^5 + \tfrac{2145}{8192}\,{b_2}^7{b_4}^3 + \tfrac{429}{2097152}\,{b_2}^{10}b_6 + \tfrac{6435}{131072}\,{b_2}^8b_4b_6)z^{26} + (\tfrac{45045}{32768}\,{b_2}^7b_6{b_4}^2 + \tfrac{21021}{8192}\,{b_6}^3{b_2}^5 + \tfrac{45045}{256}\,{b_6}^2{b_4}^4 + \tfrac{45045}{4096}\,{b_6}^4{b_2}^2 + \tfrac{105105}{512}\,b_6{b_2}^3{b_4}^4 + \tfrac{5005}{256}\,b_4{b_6}^4 + \tfrac{45045}{256}\,{b_4}^2{b_6}^3{b_2} + \tfrac{15015}{256}\,{b_6}^3b_4{b_2}^3 + \tfrac{1}{268435456}\,{b_2}^{14} + \tfrac{315315}{4096}\,{b_6}^2{b_4}^2{b_2}^4 + \tfrac{429}{16}\,{b_4}^7 + \tfrac{91}{16777216}\,{b_2}^{12}b_4 + \tfrac{63063}{2048}\,{b_2}^5b_6b_4^3 + \tfrac{45045}{128}\,{b_6}^2{b_4}^3{b_2}^2 + \tfrac{273}{4194304}\,{b_2}^{11}b_6 + \tfrac{21021}{256}\,{b_2}^2b_4{}^6 + \tfrac{45045}{1048576}\,{b_2}^8{b_6}^2 + \tfrac{63063}{16384}\,{b_2}^6{b_6}^2b_4 + \tfrac{9009}{32}\,b_2{b_4}^5b_6 + \tfrac{3003}{2097152}\,{b_2}^{10}{b_4}^2 + \tfrac{63063}{2048}\,{b_2}^4{b_4}^5 + \tfrac{5005}{262144}\,{b_2}^9b_6b_4 + \tfrac{15015}{131072}\,{b_2}^8{b_4}^3 + \tfrac{105105}{32768}\,{b_2}^6{b_4}^4)z^{28} + (\tfrac{225225}{16384}\,b_6{}^4{b_2}^3 + \tfrac{75075}{1024}\,b_4{b_6}^4b_2 + \tfrac{675675}{1024}\,{b_6}^2{b_4}^4b_2 + \tfrac{225225}{4096}\,{b_6}^3b_4{b_2}^4 + \tfrac{225225}{512}\,{b_6}^2{b_4}^3{b_2}^3 + \tfrac{675675}{2048}\,{b_6}^3{b_4}^2{b_2}^2 + \tfrac{25025}{128}\,b_4{}^3{b_6}^3 + \tfrac{15015}{2097152}\,{b_2}^{10}b_6b_4 + \tfrac{675675}{1048576}\,{b_2}^8b_6{b_4}^2 + \tfrac{105105}{65536}\,{b_2}^6{b_6}^3 + \tfrac{6435}{64}\,b_2{b_4}^7 + \tfrac{945945}{16384}\,{b_2}^5b_4{}^2{b_6}^2 + \tfrac{135135}{256}\,{b_2}^2b_4{}^5b_6 + \tfrac{1576575}{8192}\,{b_2}^4{b_4}^4b_6 + \tfrac{315315}{16384}\,{b_2}^6b_6{b_4}^3 + \tfrac{135135}{65536}\,{b_2}^7{b_6}^2b_4 + \tfrac{1}{1073741824}\,{b_2}^{15} + \tfrac{1365}{67108864}\,{b_2}^{12}b_6 + \tfrac{4095}{8388608}\,{b_2}^{11}{b_4}^2 + \tfrac{105}{67108864}\,{b_2}^{13}b_4 + \tfrac{45045}{256}\,b_4{}^6b_6 + \tfrac{105105}{1024}\,b_4{}^6{b_2}^3 + \tfrac{189189}{8192}\,{b_2}^5b_4{}^5 + \tfrac{75075}{4194304}\,{b_2}^9{b_6}^2 + \tfrac{225225}{131072}\,{b_2}^7{b_4}^4 + \tfrac{25025}{524288}\,{b_2}^9{b_4}^3 + \tfrac{3003}{1024}\,{b_6}^5)z^{30} + (-\tfrac{405405}{8192}\,{b_4}^2{b_6}^2{b_2}^6 - \tfrac{45045}{512}\,{b_6}^4b_4{b_2}^2 - \tfrac{175175}{512}\,{b_2}^3{b_6}^3{b_4}^2 - \tfrac{45045}{1024}\,{b_2}^5{b_6}^3b_4 - \tfrac{15015}{32}\,b_2{b_6}^3{b_4}^3 - \tfrac{4095}{524288}\,{b_2}^{11}b_4b_6 - \tfrac{225225}{512}\,{b_6}^2{b_2}^4{b_4}^2 - \tfrac{405405}{2048}\,b_6{b_4}^4{b_2}^5 - \tfrac{75075}{4096}\,b_6{b_4}^3{b_2}^7 - \tfrac{45045}{64}\,b_6{b_4}^5{b_2}^3 - \tfrac{525525}{512}\,{b_6}^2{b_2}^4{b_4}^2 - \tfrac{35035}{64}\,b_6{b_4}^6b_2 - \tfrac{1365}{256}\,{b_6}^5{b_2} - \tfrac{175175}{16384}\,{b_6}^4{b_2}^4 - \tfrac{6825}{128}\,{b_6}^4{b_4}^2 - \tfrac{5915}{8388608}\,{b_2}^{12}{b_4}^2 - \tfrac{105}{33554432}\,{b_2}^{14}b_4 - \tfrac{15015}{262144}\,{b_2}^{10}{b_4}^3 - \tfrac{19305}{16384}\,{b_6}^3{b_2}^7 - \tfrac{9009}{32}\,{b_6}^2{b_4}^5 - \tfrac{495495}{262144}\,{b_2}^8{b_4}^4 - \tfrac{105105}{4096}\,{b_2}^6{b_4}^5 - \tfrac{33033}{2097152}\,{b_2}^{10}{b_6}^2 - \tfrac{455}{16777216}\,{b_2}^{13}b_6 - \tfrac{135135}{1024}\,{b_2}^4{b_4}^6 - \tfrac{6435}{32}\,{b_2}^2{b_4}^7 - \tfrac{15}{4294967296}\,{b_2}^{16} - \tfrac{225225}{131072}\,b_4{b_6}^2{b_2}^8 - \tfrac{165165}{262144}\,{b_2}^9{b_4}^2b_6 - \tfrac{5005}{128}\,{b_4}^8)z^{32}$$

The logarithm $\log_C(x)$ equals

$$x + 1/12\,b_2x^3 + (1/5\,b_4 + \tfrac{1}{80}\,{b_2}^2)x^5 + (\tfrac{3}{28}\,b_4b_2 + \tfrac{3}{28}\,b_6 + \tfrac{1}{448}\,{b_2}^3)x^7 + (1/6\,{b_4}^2 + 1/24\,b_4{b_2}^2 + 1/12\,b_6b_2 + \tfrac{1}{2304}\,{b_2}^4)x^9 + (\tfrac{15}{88}\,{b_4}^2b_2 + \tfrac{5}{352}\,b_4{b_2}^3 + \tfrac{5}{22}\,b_6b_4 + \tfrac{15}{352}\,b_6{b_2}^2 + \tfrac{1}{11264}\,{b_2}^5)x^{11} + (\tfrac{15}{52}\,b_2b_6b_4 + \tfrac{15}{3328}\,b_4{b_2}^4 + \tfrac{15}{208}\,{b_6}^2 + \tfrac{5}{26}\,b_4{}^3 + \tfrac{15}{832}\,b_6{b_2}^3 + \tfrac{45}{416}\,{b_4}^2{b_2}^2 + \tfrac{1}{53248}\,{b_2}^6)x^{13} + (\tfrac{7}{16}\,{b_4}^2b_6 + \tfrac{7}{64}\,b_2{b_6}^2 + \tfrac{7}{128}\,{b_4}^2{b_2}^3 + \tfrac{7}{5120}\,b_4{b_2}^5 + \tfrac{1}{245760}\,{b_2}^7 + \tfrac{7}{1024}\,b_6{b_2}^4 + \tfrac{7}{24}\,b_4{}^3b_2 + \tfrac{7}{32}\,b_4{b_2}^2b_6)x^{15} + (\tfrac{21}{68}\,b_4b_6{}^2 + \tfrac{1}{1114112}\,{b_2}^8 + \tfrac{35}{136}\,b_4{}^3{b_2}^2 + \tfrac{105}{136}\,b_6{b_2}b_4^2 + \tfrac{35}{272}\,b_4{b_2}^3b_6 + \tfrac{105}{4352}\,{b_2}^4{b_4}^2 + \tfrac{21}{8704}\,{b_2}^5b_6 + \tfrac{105}{1088}\,{b_6}^2{b_2}^2 + \tfrac{35}{136}\,{b_4}^4 + \tfrac{7}{17408}\,{b_2}^6b_4)x^{17} + (\tfrac{1}{4980736}\,{b_2}^9 + \tfrac{21}{304}\,{b_6}^3 + \tfrac{63}{76}\,{b_4}^3b_6 + \tfrac{945}{1216}\,{b_4}^2{b_6}{b_2}^2 + \tfrac{315}{4864}\,b_4b_6{b_2}^4 + \tfrac{315}{608}\,{b_4}^4b_2 + \tfrac{315}{4864}\,{b_6}^2{b_2}^3 + \tfrac{189}{304}\,{b_6}^2b_2b_4 + \tfrac{9}{77824}\,{b_2}^7b_4 + \tfrac{189}{19456}\,{b_2}^5{b_4}^2 + \tfrac{105}{608}\,{b_2}^3{b_4}^3 + \tfrac{63}{77824}\,{b_2}^6b_6)x^{19} + (\tfrac{15}{16}\,{b_4}^2{b_6}^2 + \tfrac{45}{64}\,b_4{b_6}^2{b_2}^2 + \tfrac{75}{128}\,{b_4}^2{b_6}{b_2}^3 + \tfrac{15}{512}\,{b_2}^5b_6b_4 + \tfrac{75}{128}\,{b_2}^2{b_4}^4 +$$

$\frac{25}{256}\,b_2{}^4b_4{}^3+\frac{15}{57344}\,b_2{}^7b_6+\frac{75}{2048}\,b_6{}^2b_2{}^4+\frac{5}{32}\,b_2b_6{}^3+\frac{15}{8}\,b_6b_2b_4{}^3+3/8\,b_4{}^5+\frac{15}{458752}\,b_2{}^8b_4+\frac{1}{22020096}\,b_2{}^{10}+\frac{15}{4096}\,b_2{}^6b_4{}^2)x^{21}+(\frac{1155}{5888}\,b_6{}^3b_2{}^2+\frac{165}{368}\,b_6{}^3b_4+\frac{1}{96468992}\,b_2{}^{11}+\frac{1155}{736}\,b_6b_4{}^4+\frac{3465}{5888}\,b_4b_6{}^2b_2{}^3+\frac{17325}{47104}\,b_4{}^2b_6b_2{}^4+\frac{3465}{1472}\,b_6b_4{}^3b_2{}^2+\frac{495}{376832}\,b_2{}^7b_4{}^2+\frac{495}{6029312}\,b_2{}^8b_6+\frac{3465}{1472}\,b_6{}^2b_2b_4{}^2+\frac{3465}{188416}\,b_2{}^5b_6{}^2+\frac{5775}{11776}\,b_2{}^3b_4{}^4+\frac{693}{736}\,b_2b_4{}^5+\frac{1155}{23552}\,b_2{}^5b_4{}^3+\frac{1155}{94208}\,b_2{}^6b_6b_4+\frac{55}{6029312}\,b_2{}^9b_4)x^{23}+(\frac{99}{1280}\,b_6{}^4+\frac{99}{80}\,b_2b_6{}^3b_4+\frac{33}{13107200}\,b_2{}^{10}b_4+\frac{1}{419430400}\,b_2{}^{12}+\frac{693}{320}\,b_6b_4{}^3b_2{}^3+\frac{693}{160}\,b_6b_4{}^4b_2+\frac{231}{1280}\,b_6{}^3b_2{}^3+\frac{99}{40}\,b_6{}^2b_4{}^3+\frac{2079}{5120}\,b_4b_6{}^2b_2{}^4+\frac{2079}{640}\,b_6{}^2b_4{}^2b_2{}^2+\frac{297}{655360}\,b_2{}^8b_4{}^2+\frac{231}{10240}\,b_2{}^6b_4{}^3+\frac{33}{1310720}\,b_2{}^9b_6+\frac{693}{81920}\,b_2{}^6b_6{}^2+\frac{2079}{1600}\,b_2{}^2b_4{}^5+\frac{693}{2048}\,b_2{}^4b_4{}^4+\frac{2079}{10240}\,b_2{}^5b_6b_4{}^2+\frac{99}{20480}\,b_4b_2{}^7b_6+\frac{231}{400}\,b_4{}^6)x^{25}+(\frac{143}{48}\,b_6b_4{}^5+\frac{1001}{768}\,b_2{}^3b_4{}^5+\frac{1001}{576}\,b_2b_4{}^6+\frac{5005}{3072}\,b_2{}^4b_6b_4{}^3+\frac{1001}{4096}\,b_6{}^2b_4b_2{}^5+\frac{5005}{768}\,b_6b_4{}^4b_2{}^2+\frac{715}{196608}\,b_2{}^7b_6{}^2+\frac{5005}{49152}\,b_2{}^6b_6b_4{}^2+\frac{715}{384}\,b_4{}^2b_6{}^3+\frac{715}{96}\,b_4{}^3b_6{}^2b_2+\frac{715}{3072}\,b_2b_6{}^4+\frac{1}{1811939328}\,b_2{}^{13}+\frac{5005}{1536}\,b_6{}^2b_4{}^2b_2{}^3+\frac{5005}{36864}\,b_6{}^3b_2{}^4+\frac{715}{384}\,b_4b_6{}^3b_2{}^2+\frac{13}{18874368}\,b_2{}^{11}b_4+\frac{715}{4718592}\,b_2{}^9b_4{}^2+\frac{5005}{24576}\,b_4{}^4b_2{}^5+\frac{715}{73728}\,b_2{}^7b_4{}^3+\frac{143}{18874368}\,b_2{}^{10}b_6+\frac{715}{393216}\,b_2{}^8b_4b_6)x^{27}+(\frac{45045}{950272}\,b_2{}^7b_6b_4{}^2+\frac{21021}{237568}\,b_6{}^3b_2{}^5+\frac{45045}{7424}\,b_6{}^2b_4{}^4+\frac{45045}{118784}\,b_6{}^4b_2{}^2+\frac{105105}{14848}\,b_6b_2{}^3b_4{}^4+\frac{5005}{7424}\,b_4b_6{}^4+\frac{45045}{7424}\,b_4{}^2b_6{}^3b_2+\frac{15015}{7424}\,b_6{}^3b_4b_2{}^3+\frac{1}{7784628224}\,b_2{}^{14}+\frac{315315}{118784}\,b_6{}^2b_4{}^2b_2{}^4+\frac{429}{464}\,b_4{}^7+\frac{91}{486539264}\,b_2{}^{12}b_4+\frac{63063}{59392}\,b_2{}^5b_6b_4{}^3+\frac{45045}{3712}\,b_6{}^2b_4{}^3b_2{}^2+\frac{273}{121634816}\,b_2{}^{11}b_6+\frac{21021}{7424}\,b_2{}^2b_4{}^6+\frac{45045}{30408704}\,b_2{}^8b_6{}^2+\frac{63063}{475136}\,b_2{}^6b_6{}^2b_4+\frac{9009}{928}\,b_2b_4{}^5b_6+\frac{3003}{60817408}\,b_2{}^{10}b_4{}^2+\frac{63063}{59392}\,b_2{}^4b_4{}^5+\frac{5005}{7602176}\,b_2{}^9b_6b_4+\frac{15015}{3801088}\,b_2{}^8b_4{}^3+\frac{105105}{950272}\,b_2{}^6b_4{}^4)x^{29}+(\frac{225225}{507904}\,b_6{}^4b_2{}^3+\frac{75075}{31744}\,b_4b_6{}^4b_2+\frac{675675}{31744}\,b_6{}^2b_4{}^4b_2+\frac{225225}{126976}\,b_6{}^3b_4b_2{}^4+\frac{225225}{15872}\,b_6{}^2b_4{}^3b_2{}^3+\frac{675675}{63488}\,b_6{}^3b_4{}^2b_2{}^2+\frac{25025}{3968}\,b_4{}^3b_6{}^3+\frac{15015}{65011712}\,b_2{}^{10}b_6b_4+\frac{675675}{32505856}\,b_2{}^8b_6b_4{}^2+\frac{105105}{2031616}\,b_2{}^6b_6{}^3+\frac{6435}{1984}\,b_2b_4{}^7+\frac{945945}{507904}\,b_2{}^5b_4{}^2b_6{}^2+\frac{135135}{7936}\,b_2{}^2b_4{}^5b_6+\frac{1576575}{253952}\,b_2{}^4b_4{}^4b_6+\frac{315315}{507904}\,b_2{}^6b_6b_4{}^3+\frac{135135}{2031616}\,b_2{}^7b_6{}^2b_4+\frac{1}{3328599654 4}\,b_2{}^{15}+\frac{1365}{2080374784}\,b_2{}^{12}b_6+\frac{4095}{260046848}\,b_2{}^{11}b_4{}^2+\frac{105}{2080374784}\,b_2{}^{13}b_4+\frac{45045}{7936}\,b_4{}^6b_6+\frac{105105}{31744}\,b_4{}^6b_2{}^3+\frac{189189}{253952}\,b_2{}^5b_4{}^5+\frac{75075}{130023424}\,b_2{}^9b_6{}^2+\frac{225225}{4063232}\,b_2{}^7b_4{}^4+\frac{25025}{16252928}\,b_2{}^9b_4{}^3+\frac{3003}{31744}\,b_6{}^5)x^{31}+(-\frac{12285}{8192}\,b_4{}^2b_6{}^2b_2{}^6-\frac{1365}{512}\,b_6{}^4b_4b_2{}^2-\frac{15925}{1536}\,b_2{}^3b_6{}^3b_4{}^2-\frac{1365}{1024}\,b_2{}^5b_6{}^3b_4-\frac{455}{32}\,b_2b_6{}^3b_4{}^3-\frac{1365}{5767168}\,b_2{}^{11}b_4b_6-\frac{6825}{512}\,b_6{}^2b_4{}^3b_2{}^4-\frac{12285}{2048}\,b_6b_4{}^4b_2{}^5-\frac{2275}{4096}\,b_6b_4{}^3b_2{}^7-\frac{1365}{64}\,b_6b_4{}^5b_2{}^3-\frac{15925}{512}\,b_6{}^2b_4{}^4b_2{}^2-\frac{3185}{192}\,b_6b_4{}^6b_2-\frac{455}{2816}\,b_6{}^5b_2-\frac{15925}{49152}\,b_6{}^4b_2{}^4-\frac{2275}{1408}\,b_6{}^4b_4{}^2-\frac{5915}{276824064}\,b_2{}^{12}b_4{}^2-\frac{35}{369098752}\,b_2{}^{14}b_4-\frac{455}{262144}\,b_2{}^{10}b_4{}^3-\frac{585}{16384}\,b_6{}^3b_2{}^7-\frac{273}{32}\,b_6{}^2b_4{}^5-\frac{15015}{262144}\,b_2{}^8b_4{}^4-\frac{3185}{4096}\,b_2{}^6b_4{}^5-\frac{1001}{2097152}\,b_2{}^{10}b_6{}^2-\frac{455}{553648128}\,b_2{}^{13}b_6-\frac{4095}{1024}\,b_2{}^4b_4{}^6-\frac{195}{32}\,b_2{}^2b_4{}^7-\frac{5}{47244640256}\,b_2{}^{16}-\frac{6825}{131072}\,b_4b_6{}^2b_2{}^8-\frac{5005}{262144}\,b_2{}^9b_4{}^2b_6-\frac{455}{384}\,b_4{}^8)x^{33}$

The formal group law $F_C(x,y)$ over $\mathbb{Z}[\frac{1}{2},b_2,b_4,b_6]$ equals

$x+y$

$-1/4\,b_2x^2(y)-1/4\,b_2(x)y^2$

$-b_4x^4(y)+1/16\,b_2{}^2x^3y^2-2\,b_4x^3y^2+1/16\,b_2{}^2x^2y^3-2\,b_4x^2y^3-b_4(x)y^4$

$-1/4\,b_4b_2x^6(y)-3/4\,b_6x^6(y)-9/4\,b_6x^5y^2-\frac{1}{64}\,b_2{}^3x^4y^3+1/2\,b_4b_2x^4y^3-\frac{15}{4}\,b_6x^4y^3-\frac{1}{64}\,b_2{}^3x^3y^4+1/2\,b_4b_2x^3y^4-\frac{15}{4}\,b_6x^3y^4-9/4\,b_6x^2y^5-3/4\,b_6(x)y^6-1/4\,b_4b_2(x)y^6$

$-1/2\,b_4{}^2x^8(y)-1/16\,b_4b_2{}^2x^8(y)-3/8\,b_6b_2x^8(y)-3/4\,b_6b_2x^7y^2-1/16\,b_4b_2{}^2x^6y^3-\frac{13}{16}\,b_6b_2x^6y^3+2\,b_4{}^2x^6y^3-\frac{9}{16}\,b_6b_2x^5y^4+\frac{1}{256}\,b_2{}^4x^5y^4-1/4\,b_4b_2{}^2x^5y^4+4\,b_4{}^2x^5y^4+\frac{1}{256}\,b_2{}^4x^4y^5+4\,b_4{}^2x^4y^5-\frac{9}{16}\,b_6b_2x^4y^5-1/4\,b_4b_2{}^2x^4y^5+2\,b_4{}^2x^3y^6-\frac{13}{16}\,b_6b_2x^3y^6-1/16\,b_4b_2{}^2x^3y^6-3/4\,b_6b_2x^2y^7-3/8\,b_6b_2(x)y^8-1/2\,b_4{}^2(x)y^8-1/16\,b_4b_2{}^2(x)y^8$

$-3/8\,b_4{}^2b_2x^{10}(y)-\frac{9}{64}\,b_6b_2{}^2x^{10}(y)-\frac{1}{64}\,b_4b_2{}^3x^{10}(y)-b_6b_4x^{10}(y)-5/4\,b_6b_4x^9y^2-\frac{15}{64}\,b_6b_2{}^2x^9y^2+1/2\,b_4{}^2b_2x^8y^3-\frac{5}{16}\,b_6b_2{}^2x^8y^3+3/2\,b_6b_4x^8y^3-\frac{1}{64}\,b_4b_2{}^3x^8y^3-\frac{7}{16}\,b_6b_2{}^2x^7y^4+15/2\,b_6b_4x^7y^4-\frac{19}{32}\,b_6b_2{}^2x^6y^5-b_4{}^2b_2x^6y^5+\frac{51}{4}\,b_6b_4x^6y^5-\frac{1}{1024}\,b_2{}^5x^6y^5+1/16\,b_4b_2{}^3x^6y^5+1/16\,b_4b_2{}^3x^5y^6-b_4{}^2b_2x^5y^6-\frac{19}{32}\,b_6b_2{}^2x^5y^6-\frac{1}{1024}\,b_2{}^5x^5y^6+\frac{51}{4}\,b_6b_4x^5y^6+15/2\,b_6b_4x^4y^7-\frac{7}{16}\,b_6b_2{}^2x^4y^7+3/2\,b_6b_4x^3y^8+1/2\,b_4{}^2b_2x^3y^8-\frac{1}{64}\,b_4b_2{}^3x^3y^8-\frac{5}{16}\,b_6b_2{}^2x^3y^8-\frac{15}{64}\,b_6b_2{}^2x^2y^9-5/4\,b_6b_4x^2y^9-3/8\,b_4{}^2b_2(x)y^{10}-\frac{9}{64}\,b_6b_2{}^2(x)y^{10}-\frac{1}{64}\,b_4b_2{}^3(x)y^{10}-b_6b_4(x)y^{10}$

$-\frac{3}{64}\,b_6b_2{}^3x^{12}(y)-3/16\,b_4{}^2b_2{}^2x^{12}(y)-b_2b_6b_4x^{12}(y)-3/8\,b_6{}^2x^{12}(y)-1/2\,b_4{}^3x^{12}(y)-\frac{1}{256}\,b_4b_2{}^4x^{12}(y)-\frac{9}{16}\,b_6{}^2x^{11}y^2-\frac{9}{8}\,b_2b_6b_4x^{11}y^2-\frac{9}{128}\,b_6b_2{}^3x^{11}y^2+3/4\,b_6{}^2x^{10}y^3+b_4{}^3x^{10}y^3+1/4\,b_2b_6b_4x^{10}y^3-\frac{27}{256}\,b_6b_2{}^3x^{10}y^3-\frac{1}{256}\,b_4b_2{}^4x^{10}y^3+\frac{3}{32}\,b_4{}^2b_2{}^2x^{10}y^3+\frac{15}{8}\,b_2b_6b_4x^9y^4-\frac{35}{256}\,b_6b_2{}^3x^9y^4+\frac{75}{16}\,b_6{}^2x^9y^4-\frac{1}{256}\,b_4b_2{}^4x^8y^5+\frac{15}{8}\,b_2b_6b_4x^8y^5+\frac{81}{8}\,b_6{}^2x^8y^5-4\,b_4{}^3x^8y^5-\frac{17}{128}\,b_6b_2{}^3x^8y^5+1/4\,b_4{}^2b_2{}^2x^8y^5+\frac{7}{8}\,b_2b_6b_4x^7y^6-\frac{13}{128}\,b_6b_2{}^3x^7y^6-\frac{3}{128}\,b_4b_2{}^4x^7y^6+3/4\,b_4{}^2b_2{}^2x^7y^6-8\,b_4{}^3x^7y^6+\frac{225}{16}\,b_6{}^2x^7y^6+\frac{1}{4096}\,b_2{}^6x^7y^6+\frac{225}{16}\,b_6{}^2x^6y^7-\frac{13}{128}\,b_6b_2{}^3x^6y^7+\frac{1}{4096}\,b_2{}^6x^6y^7+\frac{7}{8}\,b_2b_6b_4x^6y^7-\frac{3}{128}\,b_4b_2{}^4x^6y^7-8\,b_4{}^3x^6y^7+3/4\,b_4{}^2b_2{}^2x^6y^7+1/4\,b_4{}^2b_2{}^2x^5y^8-4\,b_4{}^3x^5y^8+\frac{15}{8}\,b_2b_6b_4x^5y^8+\frac{81}{8}\,b_6{}^2x^5y^8-\frac{1}{256}\,b_4b_2{}^4x^5y^8-\frac{17}{128}\,b_6b_2{}^3x^5y^8+\frac{75}{16}\,b_6{}^2x^4y^9+\frac{15}{8}\,b_2b_6b_4x^4y^9-\frac{35}{256}\,b_6b_2{}^3x^4y^9+1/4\,b_2b_6b_4x^3y^{10}-\frac{27}{256}\,b_6b_2{}^3x^3y^{10}+\frac{3}{32}\,b_4{}^2b_2{}^2x^3y^{10}+b_4{}^3x^3y^{10}-\frac{1}{256}\,b_4b_2{}^4x^3y^{10}+3/4\,b_6{}^2x^3y^{10}-\frac{9}{8}\,b_2b_6b_4x^2y^{11}-\frac{9}{128}\,b_6b_2{}^3x^2y^{11}-\frac{9}{16}\,b_6{}^2x^2y^{11}-b_2b_6b_4(x)y^{12}-\frac{1}{256}\,b_4b_2{}^4(x)y^{12}-3/16\,b_4{}^2b_2{}^2(x)y^{12}-\frac{3}{64}\,b_6b_2{}^3(x)y^{12}-3/8\,b_6{}^2(x)y^{12}-1/2\,b_4{}^3(x)y^{12}$

$-\frac{1}{1024}\,b_4b_2{}^5x^{14}(y)-\frac{15}{32}\,b_2b_6{}^2x^{14}(y)-5/8\,b_4{}^3b_2x^{14}(y)-\frac{15}{1024}\,b_6b_2{}^4x^{14}(y)-\frac{5}{64}\,b_4{}^2b_2{}^3x^{14}(y)-\frac{25}{16}\,b_4{}^2b_6x^{14}(y)-5/8\,b_4b_2{}^2b_6x^{14}(y)-\frac{21}{1024}\,b_6b_2{}^4x^{13}y^2-\frac{21}{32}\,b_2b_6{}^2x^{13}y^2-\frac{21}{16}\,b_4{}^2b_6x^{13}y^2-\frac{21}{32}\,b_4b_2{}^2b_6x^{13}y^2-\frac{1}{1024}\,b_4b_2{}^5x^{12}y^3+\frac{31}{16}\,b_4{}^2b_6x^{12}y^3+3/4\,b_4{}^3b_2x^{12}y^3+\frac{25}{64}\,b_2b_6{}^2x^{12}y^3-\frac{17}{512}\,b_6b_2{}^4x^{12}y^3+\frac{1}{128}\,b_4{}^2b_2{}^3x^{12}y^3-\frac{7}{32}\,b_4b_2{}^2b_6x^{12}y^3-\frac{21}{512}\,b_6b_2{}^4x^{11}y^4+\frac{189}{64}\,b_2b_6{}^2x^{11}y^4+\frac{13}{64}\,b_4b_2{}^2b_6x^{11}y^4+\frac{55}{16}\,b_4{}^2b_6x^{11}y^4-\frac{45}{1024}\,b_6b_2{}^4x^{10}y^5-\frac{77}{16}\,b_4{}^2b_6x^{10}y^5+\frac{39}{64}\,b_4b_2{}^2b_6x^{10}y^5-\frac{1}{1024}\,b_4b_2{}^5x^{10}y^5+\frac{369}{64}\,b_2b_6{}^2x^{10}y^5+1/16\,b_4{}^2b_2{}^3x^{10}y^5-b_4{}^3b_2x^{10}y^5-\frac{365}{16}\,b_4{}^2b_6x^9y^6+\frac{485}{64}\,b_2b_6{}^2x^9y^6+\frac{95}{64}\,b_4b_2{}^2b_6x^9y^6-\frac{55}{1024}\,b_6b_2{}^4x^9y^6+\frac{155}{64}\,b_4b_2{}^2b_6x^8y^7-\frac{69}{1024}\,b_6b_2{}^4x^8y^7+\frac{531}{64}\,b_2b_6{}^2x^8y^7+2\,b_4{}^3b_2x^8y^7+\frac{3}{512}\,b_4b_2{}^5x^8y^7-\frac{1}{16384}\,b_2{}^7x^8y^7-3/16\,b_4{}^2b_2{}^3x^8y^7-\frac{615}{16}\,b_4{}^2b_6x^8y^7+\frac{155}{64}\,b_4b_2{}^2b_6x^7y^8-\frac{69}{1024}\,b_6b_2{}^4x^7y^8+\frac{531}{64}\,b_2b_6{}^2x^7y^8+2\,b_4{}^3b_2x^7y^8+\frac{3}{512}\,b_4b_2{}^5x^7y^8-\frac{1}{16384}\,b_2{}^7x^7y^8-\frac{615}{16}\,b_4{}^2b_6x^7y^8-3/16\,b_4{}^2b_2{}^3x^7y^8+\frac{95}{64}\,b_4b_2{}^2b_6x^6y^9-\frac{55}{1024}\,b_6b_2{}^4x^6y^9+\frac{485}{64}\,b_2b_6{}^2x^6y^9-\frac{365}{16}\,b_4{}^2b_6x^6y^9-\frac{77}{16}\,b_4{}^2b_6x^5y^{10}-\frac{45}{1024}\,b_6b_2{}^4x^5y^{10}+1/16\,b_4{}^2b_2{}^3x^5y^{10}-\frac{1}{1024}\,b_4b_2{}^5x^5y^{10}-b_4{}^3b_2x^5y^{10}+\frac{369}{64}\,b_2b_6{}^2x^5y^{10}+\frac{39}{64}\,b_4b_2{}^2b_6x^5y^{10}+\frac{189}{64}\,b_2b_6{}^2x^4y^{11}-\frac{21}{512}\,b_6b_2{}^4x^4y^{11}+\frac{55}{16}\,b_4{}^2b_6x^4y^{11}+\frac{13}{64}\,b_4b_2{}^2b_6x^4y^{11}-\frac{1}{1024}\,b_4b_2{}^5x^3y^{12}+\frac{25}{64}\,b_2b_6{}^2x^3y^{12}+\frac{31}{16}\,b_4{}^2b_6x^3y^{12}+\frac{1}{128}\,b_4{}^2b_2{}^3x^3y^{12}-\frac{7}{32}\,b_4b_2{}^2b_6x^3y^{12}+3/4\,b_4{}^3b_2x^3y^{12}-\frac{17}{512}\,b_6b_2{}^4x^3y^{12}-\frac{21}{32}\,b_4b_2{}^2b_6x^2y^{13}-\frac{21}{16}\,b_4{}^2b_6x^2y^{13}-\frac{21}{1024}\,b_6b_2{}^4x^2y^{13}-\frac{21}{32}\,b_2b_6{}^2x^2y^{13}-\frac{15}{32}\,b_2b_6{}^2(x)y^{14}-5/8\,b_4b_2{}^2b_6(x)y^{14}-5/8\,b_4{}^3b_2(x)y^{14}-\frac{15}{1024}\,b_6b_2{}^4(x)y^{14}-\frac{5}{64}\,b_4{}^2b_2{}^3(x)y^{14}-\frac{25}{16}\,b_4{}^2b_6(x)y^{14}-\frac{1}{1024}\,b_4b_2{}^5(x)y^{14}$

$-\frac{21}{16}\,b_4b_6{}^2x^{16}(y)-\frac{15}{32}\,b_4{}^3b_2{}^2x^{16}(y)-\frac{75}{32}\,b_6b_2b_4{}^2x^{16}(y)-\frac{15}{512}\,b_2{}^4b_4{}^2x^{16}(y)-\frac{5}{16}\,b_4b_2{}^3b_6x^{16}(y)-\frac{1}{4096}\,b_2{}^6b_4x^{16}(y)-\frac{45}{128}\,b_6{}^2b_2{}^2x^{16}(y)-5/8\,b_4{}^4x^{16}(y)-\frac{9}{2048}\,b_2{}^5b_6x^{16}(y)-\frac{15}{8}\,b_6b_2b_4{}^2x^{15}y^2-3/2\,b_4b_6{}^2x^{15}y^2-\frac{5}{16}\,b_4b_2{}^3b_6x^{15}y^2-\frac{15}{32}\,b_6{}^2b_2{}^2x^{15}y^2-\frac{3}{512}\,b_2{}^5b_6x^{15}y^2+\frac{89}{64}\,b_6b_2b_4{}^2x^{14}y^3-\frac{41}{4096}\,b_2{}^5b_6x^{14}y^3+\frac{7}{128}\,b_6{}^2b_2{}^2x^{14}y^3+\frac{11}{32}\,b_4{}^3b_2{}^2x^{14}y^3-\frac{1}{4096}\,b_2{}^6b_4x^{14}y^3-\frac{1}{256}\,b_2{}^4b_4{}^2x^{14}y^3-\frac{7}{32}\,b_4b_2{}^3b_6x^{14}y^3+b_4{}^4x^{14}y^3+\frac{15}{8}\,b_4b_6{}^2x^{14}y^3+\frac{161}{64}\,b_6b_2b_4{}^2x^{13}y^4-\frac{7}{64}\,b_4b_2{}^3b_6x^{13}y^4+\frac{161}{128}\,b_6{}^2b_2{}^2x^{13}y^4-\frac{49}{4096}\,b_2{}^5b_6x^{13}y^4+\frac{105}{16}\,b_4b_6{}^2x^{13}y^4+\frac{13}{128}\,b_4b_2{}^3b_6x^{12}y^5+\frac{689}{256}\,b_6{}^2b_2{}^2x^{12}y^5-\frac{111}{64}\,b_6b_2b_4{}^2x^{12}y^5+3\,b_4b_6{}^2x^{12}y^5-\frac{7}{512}\,b_2{}^5b_6x^{12}y^5-2\,b_4{}^4x^{12}y^5-1/8\,b_4{}^3b_2{}^2x^{12}y^5+\frac{7}{512}\,b_2{}^4b_4{}^2x^{12}y^5-\frac{1}{4096}\,b_2{}^6b_4x^{12}y^5-\frac{33}{2048}\,b_2{}^5b_6x^{11}y^6-\frac{33}{2}\,b_4b_6{}^2x^{11}y^6-\frac{431}{64}\,b_6b_2b_4{}^2x^{11}y^6+\frac{533}{128}\,b_6{}^2b_2{}^2x^{11}y^6+\frac{43}{128}\,b_4b_2{}^3b_6x^{11}y^6-\frac{433}{64}\,b_6b_2b_4{}^2x^{10}y^7-\frac{63}{4096}\,b_2{}^5b_6x^{10}y^7-3/4\,b_4{}^3b_2{}^2x^{10}y^7+\frac{3}{128}\,b_2{}^4b_4{}^2x^{10}y^7-\frac{1}{4096}\,b_2{}^6b_4x^{10}y^7+\frac{715}{128}\,b_6{}^2b_2{}^2x^{10}y^7-\frac{93}{2}\,b_4b_6{}^2x^{10}y^7+\frac{41}{128}\,b_4b_2{}^3b_6x^{10}y^7+8\,b_4{}^4x^{10}y^7-\frac{241}{64}\,b_6b_2b_4{}^2x^9y^8+\frac{17}{128}\,b_4b_2{}^3b_6x^9y^8+\frac{1}{65536}\,b_2{}^8x^9y^8+16\,b_4{}^4x^9y^8-2\,b_4{}^3b_2{}^2x^9y^8-\frac{555}{8}\,b_4b_6{}^2x^9y^8-\frac{1}{512}\,b_2{}^6b_4x^9y^8+\frac{1669}{256}\,b_6{}^2b_2{}^2x^9y^8-\frac{51}{4096}\,b_2{}^5b_6x^9y^8+\frac{3}{32}\,b_2{}^4b_4{}^2x^9y^8+16\,b_4{}^4x^8y^9-\frac{555}{8}\,b_4b_6{}^2x^8y^9+\frac{17}{128}\,b_4b_2{}^3b_6x^8y^9-\frac{1}{512}\,b_2{}^6b_4x^8y^9+\frac{1}{65536}\,b_2{}^8x^8y^9-\frac{51}{4096}\,b_2{}^5b_6x^8y^9+\frac{3}{32}\,b_2{}^4b_4{}^2x^8y^9-2\,b_4{}^3b_2{}^2x^8y^9+\frac{1669}{256}\,b_6{}^2b_2{}^2x^8y^9-\frac{241}{64}\,b_6b_2b_4{}^2x^8y^9-\frac{1}{4096}\,b_2{}^6b_4x^7y^{10}+\frac{715}{128}\,b_6{}^2b_2{}^2x^7y^{10}-\frac{63}{4096}\,b_2{}^5b_6x^7y^{10}+\frac{41}{128}\,b_4b_2{}^3b_6x^7y^{10}+8\,b_4{}^4x^7y^{10}-\frac{433}{64}\,b_6b_2b_4{}^2x^7y^{10}+\frac{3}{128}\,b_2{}^4b_4{}^2x^7y^{10}-\frac{93}{2}\,b_4b_6{}^2x^7y^{10}-3/4\,b_4{}^3b_2{}^2x^7y^{10}+\frac{43}{128}\,b_4b_2{}^3b_6x^6y^{11}-\frac{33}{2048}\,b_2{}^5b_6x^6y^{11}+\frac{533}{128}\,b_6{}^2b_2{}^2x^6y^{11}-\frac{33}{2}\,b_4b_6{}^2x^6y^{11}-\frac{431}{64}\,b_6b_2b_4{}^2x^6y^{11}-1/8\,b_4{}^3b_2{}^2x^5y^{12}+\frac{7}{512}\,b_2{}^4b_4{}^2x^5y^{12}-2\,b_4{}^4x^5y^{12}+\frac{13}{128}\,b_4b_2{}^3b_6x^5y^{12}+3\,b_4b_6{}^2x^5y^{12}-$

$$\frac{1}{4096}\,b_2{}^6b_4x^5y^{12}-\frac{7}{512}\,b_2{}^5b_6x^5y^{12}-\frac{111}{64}\,b_6b_2b_4{}^2x^5y^{12}+\frac{689}{256}\,b_6{}^2b_2{}^2x^5y^{12}+\frac{161}{64}\,b_6b_2b_4{}^2x^4y^{13}+$$
$$\frac{161}{128}\,b_6{}^2b_2{}^2x^4y^{13}+\frac{105}{16}\,b_4b_6{}^2x^4y^{13}-\frac{7}{64}\,b_4b_2{}^3b_6x^4y^{13}-\frac{49}{4096}\,b_2{}^5b_6x^4y^{13}-\frac{7}{32}\,b_4b_2{}^3b_6x^3y^{14}+b_4{}^4x^3y^{14}+$$
$$\frac{11}{32}\,b_4{}^3b_2{}^2x^3y^{14}+\frac{7}{128}\,b_6{}^2b_2{}^2x^3y^{14}-\frac{41}{4096}\,b_2{}^5b_6x^3y^{14}-\frac{1}{256}\,b_2{}^4b_4{}^2x^3y^{14}+\frac{15}{8}\,b_4b_6{}^2x^3y^{14}+\frac{89}{64}\,b_6b_2b_4{}^2x^3y^{14}-$$
$$\frac{1}{4096}\,b_2{}^6b_4x^3y^{14}-3/2\,b_4b_6{}^2x^2y^{15}-\frac{15}{8}\,b_6b_2b_4{}^2x^2y^{15}-\frac{3}{512}\,b_2{}^5b_6x^2y^{15}-\frac{5}{16}\,b_4b_2{}^3b_6x^2y^{15}-$$
$$\frac{15}{32}\,b_6{}^2b_2{}^2x^2y^{15}-\frac{45}{128}\,b_6{}^2b_2{}^2(x)y^{16}-\frac{9}{2048}\,b_2{}^5b_6(x)y^{16}-\frac{75}{32}\,b_6b_2b_4{}^2(x)y^{16}-5/8\,b_4{}^4(x)y^{16}-$$
$$\frac{5}{16}\,b_4b_2{}^3b_6(x)y^{16}-\frac{1}{4096}\,b_2{}^6b_4(x)y^{16}-\frac{15}{512}\,b_2{}^4b_4{}^2(x)y^{16}-\frac{15}{32}\,b_4{}^3b_2{}^2(x)y^{16}-\frac{21}{16}\,b_4b_6{}^2(x)y^{16}$$

$$-\frac{21}{16384}\,b_2{}^6b_6x^{18}(y)-\frac{1}{16384}\,b_2{}^7b_4x^{18}(y)-\frac{35}{256}\,b_4b_6b_2{}^4x^{18}(y)-\frac{21}{2048}\,b_2{}^5b_4{}^2x^{18}(y)-\frac{21}{64}\,b_6{}^3x^{18}(y)-$$
$$\frac{147}{64}\,b_6{}^2b_2b_4x^{18}(y)-\frac{35}{128}\,b_2{}^3b_4{}^3x^{18}(y)-\frac{105}{512}\,b_6{}^2b_2{}^3x^{18}(y)-\frac{35}{32}\,b_4{}^4b_2x^{18}(y)-\frac{21}{8}\,b_4{}^3b_6x^{18}(y)-$$
$$\frac{525}{256}\,b_4{}^2b_6b_2{}^2x^{18}(y)-\frac{135}{512}\,b_6{}^2b_2{}^3x^{17}y^2-\frac{27}{64}\,b_6{}^3x^{17}y^2-\frac{81}{32}\,b_6{}^2b_2b_4x^{17}y^2-\frac{27}{16384}\,b_2{}^6b_6x^{17}y^2-$$
$$\frac{27}{16}\,b_4{}^3b_6x^{17}y^2-\frac{135}{1024}\,b_4b_6b_2{}^4x^{17}y^2-\frac{405}{256}\,b_4{}^2b_6b_2{}^2x^{17}y^2-\frac{65}{512}\,b_4b_6b_2{}^4x^{16}y^3+5/4\,b_4{}^4b_2x^{16}y^3-$$
$$\frac{3}{1024}\,b_2{}^5b_4{}^2x^{16}y^3+3\,b_4{}^3b_6x^{16}y^3+\frac{15}{128}\,b_2{}^3b_4{}^3x^{16}y^3-\frac{3}{1024}\,b_2{}^6b_6x^{16}y^3+\frac{9}{16}\,b_6{}^3x^{16}y^3-\frac{1}{16384}\,b_2{}^7b_4x^{16}y^3+$$
$$\frac{45}{128}\,b_4{}^2b_6b_2{}^2x^{16}y^3-\frac{15}{256}\,b_6{}^2b_2{}^3x^{16}y^3+\frac{117}{64}\,b_6{}^2b_2b_4x^{16}y^3+\frac{15}{16}\,b_4{}^2b_6b_2{}^2x^{15}y^4-\frac{25}{256}\,b_4b_6b_2{}^4x^{15}y^4-$$
$$\frac{7}{2048}\,b_2{}^6b_6x^{15}y^4+\frac{13}{4}\,b_4{}^3b_6x^{15}y^4+15/2\,b_6{}^2b_2b_4x^{15}y^4+9/4\,b_6{}^3x^{15}y^4+\frac{55}{128}\,b_6{}^2b_2{}^3x^{15}y^4+$$
$$1/32\,b_2{}^3b_4{}^3x^{14}y^5-3/2\,b_4{}^4b_2x^{14}y^5+\frac{81}{64}\,b_6{}^3x^{14}y^5-\frac{21}{1024}\,b_4b_6b_2{}^4x^{14}y^5-\frac{67}{16384}\,b_2{}^6b_6x^{14}y^5-$$
$$\frac{1}{16384}\,b_2{}^7b_4x^{14}y^5+\frac{393}{64}\,b_6{}^2b_2b_4x^{14}y^5+\frac{277}{256}\,b_6{}^2b_2{}^3x^{14}y^5-\frac{15}{64}\,b_4{}^2b_6b_2{}^2x^{14}y^5-\frac{95}{16}\,b_4{}^3b_6x^{14}y^5+$$
$$\frac{5}{2048}\,b_2{}^5b_4{}^2x^{14}y^5+\frac{21}{512}\,b_4b_6b_2{}^4x^{13}y^6-\frac{91}{64}\,b_4{}^2b_6b_2{}^2x^{13}y^6-\frac{77}{16}\,b_6{}^2b_2b_4x^{13}y^6+\frac{469}{256}\,b_6{}^2b_2{}^3x^{13}y^6-$$
$$\frac{175}{16}\,b_4{}^3b_6x^{13}y^6-\frac{441}{64}\,b_6{}^3x^{13}y^6-\frac{77}{16384}\,b_2{}^6b_6x^{13}y^6-\frac{1}{16384}\,b_2{}^7b_4x^{12}y^7+\frac{3}{512}\,b_2{}^5b_4{}^2x^{12}y^7-$$
$$\frac{1199}{64}\,b_6{}^2b_2b_4x^{12}y^7+\frac{81}{1024}\,b_4b_6b_2{}^4x^{12}y^7+\frac{81}{32}\,b_6{}^2b_2{}^3x^{12}y^7-\frac{39}{8192}\,b_2{}^6b_6x^{12}y^7+\frac{167}{16}\,b_4{}^3b_6x^{12}y^7-$$
$$\frac{747}{32}\,b_6{}^3x^{12}y^7-3/16\,b_2{}^3b_4{}^3x^{12}y^7+2\,b_4{}^4b_2x^{12}y^7-\frac{201}{64}\,b_4{}^2b_6b_2{}^2x^{12}y^7-\frac{45}{8192}\,b_2{}^6b_6x^{11}y^8+$$
$$\frac{191}{64}\,b_6{}^2b_2{}^3x^{11}y^8+\frac{177}{1024}\,b_4b_6b_2{}^4x^{11}y^8-\frac{441}{64}\,b_4{}^2b_6b_2{}^2x^{11}y^8-\frac{1797}{64}\,b_6{}^2b_2b_4x^{11}y^8+\frac{935}{16}\,b_4{}^3b_6x^{11}y^8-$$
$$\frac{1377}{32}\,b_6{}^3x^{11}y^8-\frac{3}{128}\,b_2{}^5b_4{}^2x^{10}y^9-\frac{453}{8}\,b_6{}^3x^{10}y^9+\frac{203}{64}\,b_6{}^2b_2{}^3x^{10}y^9-\frac{1}{262144}\,b_2{}^9x^{10}y^9-\frac{2017}{64}\,b_6{}^2b_2b_4x^{10}y^9+$$
$$\frac{1605}{16}\,b_4{}^3b_6x^{10}y^9+\frac{147}{512}\,b_4b_6b_2{}^4x^{10}y^9+1/2\,b_2{}^3b_4{}^3x^{10}y^9-4\,b_4{}^4b_2x^{10}y^9-\frac{685}{64}\,b_4{}^2b_6b_2{}^2x^{10}y^9+$$
$$\frac{1}{2048}\,b_2{}^7b_4x^{10}y^9-\frac{27}{4096}\,b_2{}^6b_6x^{10}y^9+1/2\,b_2{}^3b_4{}^3x^9y^{10}-\frac{2017}{64}\,b_6{}^2b_2b_4x^9y^{10}+\frac{1}{2048}\,b_2{}^7b_4x^9y^{10}-$$
$$\frac{27}{4096}\,b_2{}^6b_6x^9y^{10}+\frac{1605}{16}\,b_4{}^3b_6x^9y^{10}-4\,b_4{}^4b_2x^9y^{10}+\frac{147}{512}\,b_4b_6b_2{}^4x^9y^{10}-\frac{1}{262144}\,b_2{}^9x^9y^{10}-$$
$$\frac{685}{64}\,b_4{}^2b_6b_2{}^2x^9y^{10}+\frac{203}{64}\,b_6{}^2b_2{}^3x^9y^{10}-\frac{3}{128}\,b_2{}^5b_4{}^2x^8y^{11}-\frac{453}{8}\,b_6{}^3x^8y^{11}+\frac{935}{16}\,b_4{}^3b_6x^8y^{11}-$$
$$\frac{441}{64}\,b_4{}^2b_6b_2{}^2x^8y^{11}+\frac{177}{1024}\,b_4b_6b_2{}^4x^8y^{11}+\frac{191}{64}\,b_6{}^2b_2{}^3x^8y^{11}-\frac{1797}{64}\,b_6{}^2b_2b_4x^8y^{11}-\frac{45}{8192}\,b_2{}^6b_6x^8y^{11}-$$
$$\frac{747}{32}\,b_6{}^3x^7y^{12}-3/16\,b_2{}^3b_4{}^3x^7y^{12}-\frac{39}{8192}\,b_2{}^6b_6x^7y^{12}+\frac{167}{16}\,b_4{}^3b_6x^7y^{12}+\frac{3}{512}\,b_2{}^5b_4{}^2x^7y^{12}+2\,b_4{}^4b_2x^7y^{12}-$$
$$\frac{1}{16384}\,b_2{}^7b_4x^7y^{12}+\frac{81}{32}\,b_6{}^2b_2{}^3x^7y^{12}+\frac{81}{1024}\,b_4b_6b_2{}^4x^7y^{12}-\frac{1199}{64}\,b_6{}^2b_2b_4x^7y^{12}-\frac{201}{64}\,b_4{}^2b_6b_2{}^2x^7y^{12}-$$
$$\frac{77}{16384}\,b_2{}^6b_6x^6y^{13}+\frac{469}{256}\,b_6{}^2b_2{}^3x^6y^{13}-\frac{77}{16}\,b_6{}^2b_2b_4x^6y^{13}-\frac{175}{16}\,b_4{}^3b_6x^6y^{13}-\frac{441}{64}\,b_6{}^3x^6y^{13}-$$
$$\frac{91}{64}\,b_4{}^2b_6b_2{}^2x^6y^{13}+\frac{21}{512}\,b_4b_6b_2{}^4x^6y^{13}+\frac{277}{256}\,b_6{}^2b_2{}^3x^5y^{14}-\frac{67}{16384}\,b_2{}^6b_6x^5y^{14}+\frac{81}{64}\,b_6{}^3x^5y^{14}-\frac{95}{16}\,b_4{}^3b_6x^5y^{14}+$$
$$1/32\,b_2{}^3b_4{}^3x^5y^{14}+\frac{5}{2048}\,b_2{}^5b_4{}^2x^5y^{14}-3/2\,b_4{}^4b_2x^5y^{14}+\frac{393}{64}\,b_6{}^2b_2b_4x^5y^{14}-\frac{1}{16384}\,b_2{}^7b_4x^5y^{14}-$$
$$\frac{15}{64}\,b_4{}^2b_6b_2{}^2x^5y^{14}-\frac{21}{1024}\,b_4b_6b_2{}^4x^5y^{14}+\frac{55}{128}\,b_6{}^2b_2{}^3x^4y^{15}+15/2\,b_6{}^2b_2b_4x^4y^{15}+\frac{15}{16}\,b_4{}^2b_6b_2{}^2x^4y^{15}+$$
$$\frac{13}{4}\,b_4{}^3b_6x^4y^{15}+9/4\,b_6{}^3x^4y^{15}-\frac{7}{2048}\,b_2{}^6b_6x^4y^{15}-\frac{25}{256}\,b_4b_6b_2{}^4x^4y^{15}+\frac{9}{16}\,b_6{}^3x^3y^{16}-\frac{15}{256}\,b_6{}^2b_2{}^3x^3y^{16}-$$
$$\frac{1}{16384}\,b_2{}^7b_4x^3y^{16}+\frac{117}{64}\,b_6{}^2b_2b_4x^3y^{16}+\frac{45}{128}\,b_4{}^2b_6b_2{}^2x^3y^{16}+5/4\,b_4{}^4b_2x^3y^{16}-\frac{65}{512}\,b_4b_6b_2{}^4x^3y^{16}-$$
$$\frac{3}{1024}\,b_2{}^6b_6x^3y^{16}-\frac{3}{1024}\,b_2{}^5b_4{}^2x^3y^{16}+3\,b_4{}^3b_6x^3y^{16}+\frac{15}{128}\,b_2{}^3b_4{}^3x^3y^{16}-\frac{405}{256}\,b_4{}^2b_6b_2{}^2x^2y^{17}-$$
$$\frac{27}{16384}\,b_2{}^6b_6x^2y^{17}-\frac{81}{32}\,b_6{}^2b_2b_4x^2y^{17}-\frac{27}{64}\,b_6{}^3x^2y^{17}-\frac{135}{1024}\,b_4b_6b_2{}^4x^2y^{17}-\frac{135}{512}\,b_6{}^2b_2{}^3x^2y^{17}-\frac{27}{16}\,b_4{}^3b_6x^2y^{17}-$$
$$\frac{35}{256}\,b_4b_6b_2{}^4(x)y^{18}-\frac{21}{8}\,b_4{}^3b_6(x)y^{18}-\frac{147}{64}\,b_6{}^2b_2b_4(x)y^{18}-\frac{525}{256}\,b_4{}^2b_6b_2{}^2(x)y^{18}-\frac{35}{128}\,b_2{}^3b_4{}^3(x)y^{18}-$$
$$\frac{35}{32}\,b_4{}^4b_2(x)y^{18}-\frac{21}{16384}\,b_2{}^6b_6(x)y^{18}-\frac{21}{64}\,b_6{}^3(x)y^{18}-\frac{1}{16384}\,b_2{}^7b_4(x)y^{18}-\frac{21}{2048}\,b_2{}^5b_4{}^2(x)y^{18}-\frac{105}{512}\,b_6{}^2b_2{}^3(x)y^{18}$$

$$-\frac{7}{8}\,b_4{}^5x^{20}(y)-\frac{35}{256}\,b_2{}^4b_4{}^3x^{20}(y)-7/2\,b_4{}^2b_6{}^2x^{20}(y)-\frac{7}{2048}\,b_2{}^6b_4{}^2x^{20}(y)-\frac{21}{32}\,b_2b_6{}^3x^{20}(y)-$$
$$\frac{3}{8192}\,b_2{}^7b_6x^{20}(y)-\frac{7}{128}\,b_2{}^5b_6b_4x^{20}(y)-\frac{105}{1024}\,b_6{}^2b_2{}^4x^{20}(y)-\frac{147}{64}\,b_4b_6{}^2b_2{}^2x^{20}(y)-\frac{35}{32}\,b_2{}^2b_4{}^4x^{20}(y)-$$

$$\frac{175}{128}\,b_4{}^2b_6b_2{}^3x^{20}(y)-\frac{21}{4}\,b_6b_2b_4{}^3x^{20}(y)-\frac{1}{65536}\,b_2{}^8b_4x^{20}(y)-\frac{525}{4096}\,b_6{}^2b_2{}^4x^{19}y^2-\frac{315}{128}\,b_4b_6{}^2b_2{}^2x^{19}y^2-$$
$$\frac{105}{32}\,b_6b_2b_4{}^3x^{19}y^2-\frac{525}{512}\,b_4{}^2b_6b_2{}^3x^{19}y^2-\frac{105}{32}\,b_4{}^2b_6{}^2x^{19}y^2-\frac{105}{2048}\,b_2{}^5b_6b_4x^{19}y^2-\frac{105}{128}\,b_2b_6{}^3x^{19}y^2-$$
$$\frac{15}{32768}\,b_2{}^7b_6x^{19}y^2+5/4\,b_4{}^5x^{18}y^3+\frac{17}{4}\,b_4{}^2b_6{}^2x^{18}y^3-\frac{175}{1024}\,b_4{}^2b_6b_2{}^3x^{18}y^3-\frac{1}{65536}\,b_2{}^8b_4x^{18}y^3+$$
$$\frac{185}{256}\,b_2b_6{}^3x^{18}y^3-\frac{55}{65536}\,b_2{}^7b_6x^{18}y^3-\frac{61}{1024}\,b_2{}^5b_6b_4x^{18}y^3+\frac{207}{256}\,b_4b_6{}^2b_2{}^2x^{18}y^3-\frac{11}{8192}\,b_2{}^6b_4{}^2x^{18}y^3+$$
$$\frac{15}{512}\,b_2{}^4b_4{}^3x^{18}y^3+\frac{115}{128}\,b_2{}^2b_4{}^4x^{18}y^3-\frac{125}{2048}\,b_6{}^2b_2{}^4x^{18}y^3+\frac{121}{32}\,b_6b_2b_4{}^3x^{18}y^3-\frac{63}{65536}\,b_2{}^7b_6x^{17}y^4+$$
$$\frac{165}{16}\,b_4{}^2b_6{}^2x^{17}y^4+\frac{837}{256}\,b_2b_6{}^3x^{17}y^4+\frac{495}{4096}\,b_6{}^2b_2{}^4x^{17}y^4-\frac{105}{2048}\,b_2{}^5b_6b_4x^{17}y^4+\frac{105}{1024}\,b_4{}^2b_6b_2{}^3x^{17}y^4+$$
$$\frac{63}{16}\,b_6b_2b_4{}^3x^{17}y^4+\frac{1287}{256}\,b_4b_6{}^2b_2{}^2x^{17}y^4-2\,b_4{}^5x^{16}y^5-\frac{57}{2048}\,b_2{}^5b_6b_4x^{16}y^5-\frac{87}{16}\,b_6b_2b_4{}^3x^{16}y^5-$$
$$\frac{39}{32768}\,b_2{}^7b_6x^{16}y^5-\frac{1}{65536}\,b_2{}^8b_4x^{16}y^5+\frac{5}{256}\,b_4{}^2b_6b_2{}^3x^{16}y^5-5/8\,b_2{}^2b_4{}^4x^{16}y^5+\frac{1479}{256}\,b_4b_6{}^2b_2{}^2x^{16}y^5+$$
$$\frac{15}{512}\,b_2{}^4b_4{}^3x^{16}y^5+\frac{795}{2048}\,b_6{}^2b_2{}^4x^{16}y^5+\frac{1}{4096}\,b_2{}^6b_4{}^2x^{16}y^5+\frac{351}{128}\,b_2b_6{}^3x^{16}y^5-3/8\,b_4{}^2b_6{}^2x^{16}y^5-$$
$$\frac{11}{8192}\,b_2{}^7b_6x^{15}y^6-\frac{151}{16}\,b_6b_2b_4{}^3x^{15}y^6-\frac{309}{64}\,b_2b_6{}^3x^{15}y^6-\frac{333}{16}\,b_4{}^2b_6{}^2x^{15}y^6-\frac{3}{256}\,b_2{}^5b_6b_4x^{15}y^6+$$
$$\frac{725}{1024}\,b_6{}^2b_2{}^4x^{15}y^6+\frac{147}{64}\,b_4b_6{}^2b_2{}^2x^{15}y^6-\frac{55}{256}\,b_4{}^2b_6b_2{}^3x^{15}y^6+\frac{19}{2048}\,b_2{}^5b_6b_4x^{14}y^7-\frac{4959}{256}\,b_2b_6{}^3x^{14}y^7-$$
$$\frac{789}{64}\,b_4{}^2b_6{}^2x^{14}y^7+4\,b_4{}^5x^{14}y^7-\frac{141}{128}\,b_4{}^2b_6b_2{}^3x^{14}y^7-\frac{983}{256}\,b_4b_6{}^2b_2{}^2x^{14}y^7-\frac{1}{65536}\,b_2{}^8b_4x^{14}y^7+$$
$$\frac{11}{8192}\,b_2{}^6b_4{}^2x^{14}y^7+\frac{4201}{4096}\,b_6{}^2b_2{}^4x^{14}y^7-\frac{93}{65536}\,b_2{}^7b_6x^{14}y^7+\frac{95}{64}\,b_6b_2b_4{}^3x^{14}y^7+1/8\,b_2{}^2b_4{}^4x^{14}y^7-$$
$$\frac{9}{256}\,b_2{}^4b_4{}^3x^{14}y^7-\frac{105}{65536}\,b_2{}^7b_6x^{13}y^8+\frac{3801}{64}\,b_4{}^2b_6{}^2x^{13}y^8-\frac{9387}{256}\,b_2b_6{}^3x^{13}y^8+\frac{5341}{4096}\,b_6{}^2b_2{}^4x^{13}y^8-$$
$$\frac{273}{128}\,b_4{}^2b_6b_2{}^3x^{13}y^8-\frac{385}{32}\,b_4b_6{}^2b_2{}^2x^{13}y^8+\frac{959}{64}\,b_6b_2b_4{}^3x^{13}y^8+\frac{35}{1024}\,b_2{}^5b_6b_4x^{13}y^8-\frac{3}{32}\,b_2{}^4b_4{}^3x^{12}y^9+$$
$$\frac{787}{512}\,b_6{}^2b_2{}^4x^{12}y^9-\frac{5433}{256}\,b_4b_6{}^2b_2{}^2x^{12}y^9-\frac{1}{65536}\,b_2{}^8b_4x^{12}y^9-16\,b_4{}^5x^{12}y^9+2\,b_2{}^2b_4{}^4x^{12}y^9-$$
$$\frac{1079}{512}\,b_4{}^2b_6b_2{}^3x^{12}y^9+1/32\,b_2{}^5b_6b_4x^{12}y^9+\frac{975}{64}\,b_6b_2b_4{}^3x^{12}y^9+\frac{1}{512}\,b_2{}^6b_4{}^2x^{12}y^9+\frac{11291}{64}\,b_4{}^2b_6{}^2x^{12}y^9-$$
$$\frac{13109}{256}\,b_2b_6{}^3x^{12}y^9-\frac{25}{16384}\,b_2{}^7b_6x^{12}y^9-\frac{7111}{256}\,b_4b_6{}^2b_2{}^2x^{11}y^{10}+\frac{3445}{2048}\,b_6{}^2b_2{}^4x^{11}y^{10}-\frac{15147}{256}\,b_2b_6{}^3x^{11}y^{10}-$$
$$\frac{5}{32768}\,b_2{}^8b_4x^{11}y^{10}+\frac{5}{512}\,b_2{}^6b_4{}^2x^{11}y^{10}+\frac{17143}{64}\,b_4{}^2b_6{}^2x^{11}y^{10}-32\,b_4{}^5x^{11}y^{10}-\frac{5}{16}\,b_2{}^4b_4{}^3x^{11}y^{10}+$$
$$\frac{1}{1048576}\,b_2{}^{10}x^{11}y^{10}+\frac{463}{64}\,b_6b_2b_4{}^3x^{11}y^{10}+\frac{1}{128}\,b_2{}^5b_6b_4x^{11}y^{10}+5\,b_2{}^2b_4{}^4x^{11}y^{10}-\frac{695}{512}\,b_4{}^2b_6b_2{}^3x^{11}y^{10}-$$
$$\frac{21}{16384}\,b_2{}^7b_6x^{11}y^{10}+5\,b_2{}^2b_4{}^4x^{10}y^{11}+\frac{17143}{64}\,b_4{}^2b_6{}^2x^{10}y^{11}-\frac{5}{16}\,b_2{}^4b_4{}^3x^{10}y^{11}-\frac{21}{16384}\,b_2{}^7b_6x^{10}y^{11}-$$
$$\frac{695}{512}\,b_4{}^2b_6b_2{}^3x^{10}y^{11}-\frac{5}{32768}\,b_2{}^8b_4x^{10}y^{11}-32\,b_4{}^5x^{10}y^{11}+\frac{5}{512}\,b_2{}^6b_4{}^2x^{10}y^{11}-\frac{7111}{256}\,b_4b_6{}^2b_2{}^2x^{10}y^{11}+$$
$$\frac{1}{1048576}\,b_2{}^{10}x^{10}y^{11}+\frac{1}{128}\,b_2{}^5b_6b_4x^{10}y^{11}-\frac{15147}{256}\,b_2b_6{}^3x^{10}y^{11}+\frac{3445}{2048}\,b_6{}^2b_2{}^4x^{10}y^{11}+\frac{463}{64}\,b_6b_2b_4{}^3x^{10}y^{11}-$$
$$16\,b_4{}^5x^9y^{12}+1/32\,b_2{}^5b_6b_4x^9y^{12}-\frac{3}{32}\,b_2{}^4b_4{}^3x^9y^{12}-\frac{1079}{512}\,b_4{}^2b_6b_2{}^3x^9y^{12}+\frac{1}{512}\,b_2{}^6b_4{}^2x^9y^{12}+$$
$$\frac{11291}{64}\,b_4{}^2b_6{}^2x^9y^{12}+2\,b_2{}^2b_4{}^4x^9y^{12}-\frac{1}{65536}\,b_2{}^8b_4x^9y^{12}-\frac{13109}{256}\,b_2b_6{}^3x^9y^{12}-\frac{25}{16384}\,b_2{}^7b_6x^9y^{12}-$$
$$\frac{5433}{256}\,b_4b_6{}^2b_2{}^2x^9y^{12}+\frac{975}{64}\,b_6b_2b_4{}^3x^9y^{12}+\frac{787}{512}\,b_6{}^2b_2{}^4x^9y^{12}+\frac{5341}{4096}\,b_6{}^2b_2{}^4x^8y^{13}-\frac{105}{65536}\,b_2{}^7b_6x^8y^{13}+$$
$$\frac{35}{1024}\,b_2{}^5b_6b_4x^8y^{13}-\frac{9387}{256}\,b_2b_6{}^3x^8y^{13}-\frac{385}{32}\,b_4b_6{}^2b_2{}^2x^8y^{13}-\frac{273}{128}\,b_4{}^2b_6b_2{}^3x^8y^{13}+\frac{3801}{64}\,b_4{}^2b_6{}^2x^8y^{13}+$$
$$\frac{959}{64}\,b_6b_2b_4{}^3x^8y^{13}+\frac{11}{8192}\,b_2{}^6b_4{}^2x^7y^{14}+\frac{19}{2048}\,b_2{}^5b_6b_4x^7y^{14}-\frac{789}{64}\,b_4{}^2b_6{}^2x^7y^{14}+\frac{4201}{4096}\,b_6{}^2b_2{}^4x^7y^{14}+$$
$$4\,b_4{}^5x^7y^{14}-\frac{983}{256}\,b_4b_6{}^2b_2{}^2x^7y^{14}+1/8\,b_2{}^2b_4{}^4x^7y^{14}-\frac{4959}{256}\,b_2b_6{}^3x^7y^{14}-\frac{9}{256}\,b_2{}^4b_4{}^3x^7y^{14}+\frac{95}{64}\,b_6b_2b_4{}^3x^7y^{14}-$$
$$\frac{1}{65536}\,b_2{}^8b_4x^7y^{14}-\frac{93}{65536}\,b_2{}^7b_6x^7y^{14}-\frac{141}{128}\,b_4{}^2b_6b_2{}^3x^7y^{14}-\frac{151}{16}\,b_6b_2b_4{}^3x^6y^{15}-\frac{55}{256}\,b_4{}^2b_6b_2{}^3x^6y^{15}-$$
$$\frac{333}{16}\,b_4{}^2b_6{}^2x^6y^{15}+\frac{147}{64}\,b_4b_6{}^2b_2{}^2x^6y^{15}-\frac{11}{8192}\,b_2{}^7b_6x^6y^{15}-\frac{309}{64}\,b_2b_6{}^3x^6y^{15}-\frac{3}{256}\,b_2{}^5b_6b_4x^6y^{15}+$$
$$\frac{725}{1024}\,b_6{}^2b_2{}^4x^6y^{15}-2\,b_4{}^5x^5y^{16}+\frac{351}{128}\,b_2b_6{}^3x^5y^{16}-5/8\,b_2{}^2b_4{}^4x^5y^{16}-\frac{87}{16}\,b_6b_2b_4{}^3x^5y^{16}+\frac{5}{256}\,b_4{}^2b_6b_2{}^3x^5y^{16}-$$
$$\frac{1}{65536}\,b_2{}^8b_4x^5y^{16}-\frac{39}{32768}\,b_2{}^7b_6x^5y^{16}+\frac{15}{512}\,b_2{}^4b_4{}^3x^5y^{16}+\frac{795}{2048}\,b_6{}^2b_2{}^4x^5y^{16}-\frac{57}{2048}\,b_2{}^5b_6b_4x^5y^{16}-$$
$$3/8\,b_4{}^2b_6{}^2x^5y^{16}+\frac{1479}{256}\,b_4b_6{}^2b_2{}^2x^5y^{16}+\frac{1}{4096}\,b_2{}^6b_4{}^2x^5y^{16}+\frac{63}{16}\,b_6b_2b_4{}^3x^4y^{17}-\frac{105}{2048}\,b_2{}^5b_6b_4x^4y^{17}+$$
$$\frac{105}{1024}\,b_4{}^2b_6b_2{}^3x^4y^{17}+\frac{495}{4096}\,b_6{}^2b_2{}^4x^4y^{17}+\frac{165}{16}\,b_4{}^2b_6{}^2x^4y^{17}+\frac{1287}{256}\,b_4b_6{}^2b_2{}^2x^4y^{17}+\frac{837}{256}\,b_2b_6{}^3x^4y^{17}-$$
$$\frac{63}{65536}\,b_2{}^7b_6x^4y^{17}+\frac{207}{256}\,b_4b_6{}^2b_2{}^2x^3y^{18}+\frac{17}{4}\,b_4{}^2b_6{}^2x^3y^{18}+\frac{115}{128}\,b_2{}^2b_4{}^4x^3y^{18}+\frac{15}{512}\,b_2{}^4b_4{}^3x^3y^{18}+$$
$$\frac{121}{32}\,b_6b_2b_4{}^3x^3y^{18}-\frac{11}{8192}\,b_2{}^6b_4{}^2x^3y^{18}+5/4\,b_4{}^5x^3y^{18}-\frac{175}{1024}\,b_4{}^2b_6b_2{}^3x^3y^{18}-\frac{1}{65536}\,b_2{}^8b_4x^3y^{18}-$$
$$\frac{61}{1024}\,b_2{}^5b_6b_4x^3y^{18}-\frac{55}{65536}\,b_2{}^7b_6x^3y^{18}+\frac{185}{256}\,b_2b_6{}^3x^3y^{18}-\frac{125}{2048}\,b_6{}^2b_2{}^4x^3y^{18}-\frac{105}{2048}\,b_2{}^5b_6b_4x^2y^{19}-$$
$$\frac{525}{512}\,b_4{}^2b_6b_2{}^3x^2y^{19}-\frac{15}{32768}\,b_2{}^7b_6x^2y^{19}-\frac{525}{4096}\,b_6{}^2b_2{}^4x^2y^{19}-\frac{105}{128}\,b_2b_6{}^3x^2y^{19}-\frac{315}{128}\,b_4b_6{}^2b_2{}^2x^2y^{19}-$$
$$\frac{105}{32}\,b_6b_2b_4{}^3x^2y^{19}-\frac{105}{32}\,b_4{}^2b_6{}^2x^2y^{19}-\frac{175}{128}\,b_4{}^2b_6b_2{}^3(x)y^{20}-\frac{147}{64}\,b_4b_6{}^2b_2{}^2(x)y^{20}-\frac{35}{32}\,b_2{}^2b_4{}^4(x)y^{20}-$$

$$\frac{105}{1024}\,b_6{}^2b_2{}^4(x)y^{20}-\frac{21}{32}\,b_2b_6{}^3(x)y^{20}-\frac{7}{8}\,b_4{}^5(x)y^{20}-7/2\,b_4{}^2b_6{}^2(x)y^{20}-\frac{7}{2048}\,b_2{}^6b_4{}^2(x)y^{20}-$$
$$\frac{1}{65536}\,b_2{}^8b_4(x)y^{20}-\frac{21}{4}\,b_6b_2b_4{}^3(x)y^{20}-\frac{3}{8192}\,b_2{}^7b_6(x)y^{20}-\frac{7}{128}\,b_2{}^5b_6b_4(x)y^{20}-\frac{35}{256}\,b_2{}^4b_4{}^3(x)y^{20}$$
$$-\frac{105}{128}\,b_2{}^3b_4{}^4x^{22}(y)-\frac{189}{4096}\,b_2{}^5b_6{}^2x^{22}(y)-\frac{63}{1024}\,b_2{}^5b_4{}^3x^{22}(y)-\frac{189}{256}\,b_6{}^3b_2{}^2x^{22}(y)-\frac{147}{32}\,b_6b_4{}^4x^{22}(y)-$$
$$\frac{27}{262144}\,b_2{}^8b_6x^{22}(y)-\frac{63}{32}\,b_2b_4{}^5x^{22}(y)-\frac{9}{8192}\,b_2{}^7b_4{}^2x^{22}(y)-\frac{21}{1024}\,b_2{}^6b_6b_4x^{22}(y)-\frac{63}{8}\,b_6{}^2b_2b_4{}^2x^{22}(y)-$$
$$\frac{1575}{2048}\,b_4{}^2b_6b_2{}^4x^{22}(y)-\frac{189}{32}\,b_6b_4{}^3b_2{}^2x^{22}(y)-\frac{441}{256}\,b_4b_6{}^2b_2{}^3x^{22}(y)-\frac{1}{262144}\,b_2{}^9b_4x^{22}(y)-\frac{15}{8}\,b_6{}^3b_4x^{22}(y)-$$
$$\frac{77}{32}\,b_6b_4{}^4x^{21}y^2-\frac{231}{128}\,b_4b_6{}^2b_2{}^3x^{21}y^2-\frac{1155}{2048}\,b_4{}^2b_6b_2{}^4x^{21}y^2-\frac{231}{64}\,b_6b_4{}^3b_2{}^2x^{21}y^2-\frac{33}{262144}\,b_2{}^8b_6x^{21}y^2-$$
$$\frac{231}{256}\,b_6{}^3b_2{}^2x^{21}y^2-\frac{231}{4096}\,b_2{}^5b_6{}^2x^{21}y^2-\frac{33}{16}\,b_6{}^3b_4x^{21}y^2-\frac{77}{4096}\,b_2{}^6b_6b_4x^{21}y^2-\frac{231}{32}\,b_6{}^2b_2b_4{}^2x^{21}y^2+$$
$$\frac{245}{512}\,b_2{}^3b_4{}^4x^{20}y^3+\frac{77}{32}\,b_6b_4{}^3b_2{}^2x^{20}y^3+\frac{399}{64}\,b_6{}^2b_2b_4{}^2x^{20}y^3+\frac{35}{16}\,b_2b_4{}^5x^{20}y^3-\frac{17}{32768}\,b_2{}^7b_4{}^2x^{20}y^3+$$
$$\frac{7}{2048}\,b_2{}^5b_4{}^3x^{20}y^3-\frac{203}{8192}\,b_2{}^6b_6b_4x^{20}y^3-\frac{1}{262144}\,b_2{}^9b_4x^{20}y^3-\frac{623}{16384}\,b_2{}^5b_6{}^2x^{20}y^3-\frac{1085}{4096}\,b_4{}^2b_6b_2{}^4x^{20}y^3+$$
$$\frac{245}{512}\,b_6{}^3b_2{}^2x^{20}y^3-\frac{31}{131072}\,b_2{}^8b_6x^{20}y^3+\frac{161}{32}\,b_6b_4{}^4x^{20}y^3+\frac{21}{8}\,b_6{}^3b_4x^{20}y^3+\frac{21}{512}\,b_4b_6{}^2b_2{}^3x^{20}y^3+$$
$$\frac{525}{64}\,b_6{}^3b_4x^{19}y^4-\frac{575}{4096}\,b_4{}^2b_6b_2{}^4x^{19}y^4+\frac{425}{16384}\,b_2{}^5b_6{}^2x^{19}y^4+\frac{635}{256}\,b_6b_4{}^3b_2{}^2x^{19}y^4-\frac{365}{16384}\,b_2{}^6b_6b_4x^{19}y^4+$$
$$\frac{2155}{128}\,b_6{}^2b_2b_4{}^2x^{19}y^4+\frac{645}{256}\,b_4b_6{}^2b_2{}^3x^{19}y^4+\frac{125}{32}\,b_6b_4{}^4x^{19}y^4+\frac{1405}{512}\,b_6{}^3b_2{}^2x^{19}y^4-\frac{35}{131072}\,b_2{}^8b_6x^{19}y^4-$$
$$\frac{1}{262144}\,b_2{}^9b_4x^{18}y^5-\frac{265}{16384}\,b_2{}^6b_6b_4x^{18}y^5-\frac{45}{2048}\,b_4{}^2b_6b_2{}^4x^{18}y^5+\frac{27}{2048}\,b_2{}^5b_4{}^3x^{18}y^5+\frac{79}{16}\,b_6{}^2b_2b_4{}^2x^{18}y^5+$$
$$\frac{3037}{1024}\,b_6{}^3b_2{}^2x^{18}y^5-\frac{725}{256}\,b_6b_4{}^3b_2{}^2x^{18}y^5+\frac{3885}{1024}\,b_4b_6{}^2b_2{}^3x^{18}y^5-\frac{5}{32}\,b_2{}^3b_4{}^4x^{18}y^5-\frac{1}{16384}\,b_2{}^7b_4{}^2x^{18}y^5+$$
$$\frac{2077}{16384}\,b_2{}^5b_6{}^2x^{18}y^5-5/2\,b_2b_4{}^5x^{18}y^5+\frac{141}{64}\,b_6{}^3b_4x^{18}y^5-\frac{89}{262144}\,b_2{}^8b_6x^{18}y^5-\frac{281}{32}\,b_6b_4{}^4x^{18}y^5-$$
$$\frac{195}{16384}\,b_2{}^6b_6b_4x^{17}y^6-\frac{1269}{256}\,b_6b_4{}^3b_2{}^2x^{17}y^6-\frac{345}{32}\,b_6b_4{}^4x^{17}y^6-\frac{2295}{128}\,b_6{}^2b_2b_4{}^2x^{17}y^6-\frac{105}{2048}\,b_4{}^2b_6b_2{}^4x^{17}y^6-$$
$$\frac{585}{32}\,b_6{}^3b_4x^{17}y^6+\frac{873}{256}\,b_4b_6{}^2b_2{}^3x^{17}y^6+\frac{4101}{16384}\,b_2{}^5b_6{}^2x^{17}y^6-\frac{1293}{1024}\,b_6{}^3b_2{}^2x^{17}y^6-\frac{99}{262144}\,b_2{}^8b_6x^{17}y^6-$$
$$\frac{3}{1024}\,b_2{}^5b_4{}^3x^{16}y^7+\frac{783}{2048}\,b_2{}^5b_6{}^2x^{16}y^7-\frac{2613}{256}\,b_6{}^3b_2{}^2x^{16}y^7-\frac{339}{128}\,b_6b_4{}^3b_2{}^2x^{16}y^7-\frac{1}{262144}\,b_2{}^9b_4x^{16}y^7+$$
$$\frac{195}{16}\,b_6b_4{}^4x^{16}y^7-\frac{5}{32}\,b_2{}^3b_4{}^4x^{16}y^7+3\,b_2b_4{}^5x^{16}y^7+\frac{9}{32768}\,b_2{}^7b_4{}^2x^{16}y^7-\frac{27}{65536}\,b_2{}^8b_6x^{16}y^7-\frac{1881}{64}\,b_6{}^3b_4x^{16}y^7+$$
$$\frac{1299}{1024}\,b_4b_6{}^2b_2{}^3x^{16}y^7-\frac{63}{16384}\,b_2{}^6b_6b_4x^{16}y^7-\frac{355}{1024}\,b_4{}^2b_6b_2{}^4x^{16}y^7-\frac{2181}{128}\,b_6{}^2b_2b_4{}^2x^{16}y^7+\frac{2093}{4096}\,b_2{}^5b_6{}^2x^{15}y^8+$$
$$\frac{419}{16}\,b_6b_4{}^4x^{15}y^8-\frac{161}{64}\,b_4b_6{}^2b_2{}^3x^{15}y^8-\frac{15}{32768}\,b_2{}^8b_6x^{15}y^8+\frac{21}{128}\,b_6b_4{}^3b_2{}^2x^{15}y^8+\frac{11}{4096}\,b_2{}^6b_6b_4x^{15}y^8+$$
$$\frac{1401}{64}\,b_6{}^2b_2b_4{}^2x^{15}y^8-\frac{625}{1024}\,b_4{}^2b_6b_2{}^4x^{15}y^8-\frac{723}{32}\,b_6{}^3b_2{}^2x^{15}y^8+\frac{279}{32}\,b_6{}^3b_4x^{15}y^8-\frac{1}{262144}\,b_2{}^9b_4x^{14}y^9-$$
$$\frac{3}{128}\,b_2{}^5b_4{}^3x^{14}y^9+\frac{1}{2048}\,b_2{}^7b_4{}^2x^{14}y^9-\frac{829}{32}\,b_6b_4{}^4x^{14}y^9+1/2\,b_2{}^3b_4{}^4x^{14}y^9-4\,b_2b_4{}^5x^{14}y^9-\frac{119}{262144}\,b_2{}^8b_6x^{14}y^9-$$
$$\frac{37099}{1024}\,b_6{}^3b_2{}^2x^{14}y^9+\frac{1205}{16}\,b_6{}^2b_2b_4{}^2x^{14}y^9+\frac{5095}{8192}\,b_2{}^5b_6{}^2x^{14}y^9+\frac{7329}{64}\,b_6{}^3b_4x^{14}y^9+\frac{1537}{256}\,b_6b_4{}^3b_2{}^2x^{14}y^9+$$
$$\frac{47}{8192}\,b_2{}^6b_6b_4x^{14}y^9-\frac{6767}{1024}\,b_4b_6{}^2b_2{}^3x^{14}y^9-\frac{1709}{2048}\,b_4{}^2b_6b_2{}^4x^{14}y^9-\frac{4669}{32}\,b_6b_4{}^4x^{13}y^{10}-\frac{133}{262144}\,b_2{}^8b_6x^{13}y^{10}-$$
$$\frac{49385}{1024}\,b_6{}^3b_2{}^2x^{13}y^{10}-\frac{2765}{2048}\,b_4{}^2b_6b_2{}^4x^{13}y^{10}+\frac{14343}{128}\,b_6{}^2b_2b_4{}^2x^{13}y^{10}+\frac{4865}{256}\,b_6b_4{}^3b_2{}^2x^{13}y^{10}-$$
$$\frac{1197}{128}\,b_4b_6{}^2b_2{}^3x^{13}y^{10}+\frac{5691}{8192}\,b_2{}^5b_6{}^2x^{13}y^{10}+\frac{119}{8192}\,b_2{}^6b_6b_4x^{13}y^{10}+\frac{2037}{8}\,b_6{}^3b_4x^{13}y^{10}+\frac{4013}{32}\,b_6{}^2b_2b_4{}^2x^{12}y^{11}-$$
$$\frac{3965}{2048}\,b_4{}^2b_6b_2{}^4x^{12}y^{11}-\frac{10651}{1024}\,b_4b_6{}^2b_2{}^3x^{12}y^{11}+\frac{215}{8192}\,b_2{}^6b_6b_4x^{12}y^{11}+\frac{5}{64}\,b_2{}^5b_4{}^3x^{12}y^{11}+\frac{8161}{256}\,b_6b_4{}^3b_2{}^2x^{12}y^{11}-$$
$$\frac{5}{2048}\,b_2{}^7b_4{}^2x^{12}y^{11}-\frac{8041}{32}\,b_6b_4{}^4x^{12}y^{11}+\frac{5}{131072}\,b_2{}^9b_4x^{12}y^{11}-\frac{1}{4194304}\,b_2{}^{11}x^{12}y^{11}+\frac{5945}{8192}\,b_2{}^5b_6{}^2x^{12}y^{11}-$$
$$5/4\,b_2{}^3b_4{}^4x^{12}y^{11}+\frac{11373}{32}\,b_6{}^3b_4x^{12}y^{11}+8\,b_2b_4{}^5x^{12}y^{11}-\frac{155}{262144}\,b_2{}^8b_6x^{12}y^{11}-\frac{7091}{128}\,b_6{}^3b_2{}^2x^{12}y^{11}+$$
$$8\,b_2b_4{}^5x^{11}y^{12}-5/4\,b_2{}^3b_4{}^4x^{11}y^{12}+\frac{8161}{256}\,b_6b_4{}^3b_2{}^2x^{11}y^{12}+\frac{5}{64}\,b_2{}^5b_4{}^3x^{11}y^{12}-\frac{1}{4194304}\,b_2{}^{11}x^{11}y^{12}+$$
$$\frac{215}{8192}\,b_2{}^6b_6b_4x^{11}y^{12}+\frac{5945}{8192}\,b_2{}^5b_6{}^2x^{11}y^{12}+\frac{5}{131072}\,b_2{}^9b_4x^{11}y^{12}+\frac{11373}{32}\,b_6{}^3b_4x^{11}y^{12}-\frac{155}{262144}\,b_2{}^8b_6x^{11}y^{12}-$$
$$\frac{5}{2048}\,b_2{}^7b_4{}^2x^{11}y^{12}+\frac{4013}{32}\,b_6{}^2b_2b_4{}^2x^{11}y^{12}-\frac{10651}{1024}\,b_4b_6{}^2b_2{}^3x^{11}y^{12}-\frac{7091}{128}\,b_6{}^3b_2{}^2x^{11}y^{12}-\frac{8041}{32}\,b_6b_4{}^4x^{11}y^{12}-$$
$$\frac{3965}{2048}\,b_4{}^2b_6b_2{}^4x^{11}y^{12}+\frac{2037}{8}\,b_6{}^3b_4x^{10}y^{13}-\frac{133}{262144}\,b_2{}^8b_6x^{10}y^{13}+\frac{14343}{128}\,b_6{}^2b_2b_4{}^2x^{10}y^{13}-\frac{1197}{128}\,b_4b_6{}^2b_2{}^3x^{10}y^{13}-$$
$$\frac{49385}{1024}\,b_6{}^3b_2{}^2x^{10}y^{13}-\frac{4669}{32}\,b_6b_4{}^4x^{10}y^{13}+\frac{5691}{8192}\,b_2{}^5b_6{}^2x^{10}y^{13}-\frac{2765}{2048}\,b_4{}^2b_6b_2{}^4x^{10}y^{13}+\frac{119}{8192}\,b_2{}^6b_6b_4x^{10}y^{13}+$$
$$\frac{4865}{256}\,b_6b_4{}^3b_2{}^2x^{10}y^{13}-\frac{119}{262144}\,b_2{}^8b_6x^9y^{14}-\frac{829}{32}\,b_6b_4{}^4x^9y^{14}+\frac{47}{8192}\,b_2{}^6b_6b_4x^9y^{14}-\frac{1}{262144}\,b_2{}^9b_4x^9y^{14}+$$
$$\frac{5095}{8192}\,b_2{}^5b_6{}^2x^9y^{14}+\frac{7329}{64}\,b_6{}^3b_4x^9y^{14}+1/2\,b_2{}^3b_4{}^4x^9y^{14}+\frac{1}{2048}\,b_2{}^7b_4{}^2x^9y^{14}+\frac{1205}{16}\,b_6{}^2b_2b_4{}^2x^9y^{14}-$$
$$4\,b_2b_4{}^5x^9y^{14}-\frac{6767}{1024}\,b_4b_6{}^2b_2{}^3x^9y^{14}-\frac{37099}{1024}\,b_6{}^3b_2{}^2x^9y^{14}+\frac{1537}{256}\,b_6b_4{}^3b_2{}^2x^9y^{14}-\frac{3}{128}\,b_2{}^5b_4{}^3x^9y^{14}-$$
$$\frac{1709}{2048}\,b_4{}^2b_6b_2{}^4x^9y^{14}+\frac{279}{32}\,b_6{}^3b_4x^8y^{15}-\frac{723}{32}\,b_6{}^3b_2{}^2x^8y^{15}-\frac{15}{32768}\,b_2{}^8b_6x^8y^{15}+\frac{419}{16}\,b_6b_4{}^4x^8y^{15}+$$
$$\frac{2093}{4096}\,b_2{}^5b_6{}^2x^8y^{15}-\frac{161}{64}\,b_4b_6{}^2b_2{}^3x^8y^{15}+\frac{11}{4096}\,b_2{}^6b_6b_4x^8y^{15}-\frac{625}{1024}\,b_4{}^2b_6b_2{}^4x^8y^{15}+\frac{1401}{64}\,b_6{}^2b_2b_4{}^2x^8y^{15}+$$

$$\frac{21}{128}\,b_6b_4{}^3b_2{}^2x^8y^{15}+\frac{9}{32768}\,b_2{}^7b_4{}^2x^7y^{16}-\frac{2181}{128}\,b_6{}^2b_2b_4{}^2x^7y^{16}-\frac{1881}{64}\,b_6{}^3b_4x^7y^{16}-\frac{355}{1024}\,b_4{}^2b_6b_2{}^4x^7y^{16}-$$
$$\frac{339}{128}\,b_6b_4{}^3b_2{}^2x^7y^{16}+\frac{1299}{1024}\,b_4b_6{}^2b_2{}^3x^7y^{16}-\frac{2613}{256}\,b_6{}^3b_2{}^2x^7y^{16}-\frac{27}{65536}\,b_2{}^8b_6x^7y^{16}-\frac{63}{16384}\,b_2{}^6b_6b_4x^7y^{16}-$$
$$\frac{3}{1024}\,b_2{}^5b_4{}^3x^7y^{16}-\frac{1}{262144}\,b_2{}^9b_4x^7y^{16}-\frac{5}{32}\,b_2{}^3b_4{}^4x^7y^{16}+\frac{783}{2048}\,b_2{}^5b_6{}^2x^7y^{16}+3\,b_2b_4{}^5x^7y^{16}+\frac{195}{16}\,b_6b_4{}^4x^7y^{16}-$$
$$\frac{585}{32}\,b_6{}^3b_4x^6y^{17}+\frac{873}{256}\,b_4b_6{}^2b_2{}^3x^6y^{17}-\frac{105}{2048}\,b_4{}^2b_6b_2{}^4x^6y^{17}+\frac{4101}{16384}\,b_2{}^5b_6{}^2x^6y^{17}-\frac{1293}{1024}\,b_6{}^3b_2{}^2x^6y^{17}-$$
$$\frac{195}{16384}\,b_2{}^6b_6b_4x^6y^{17}-\frac{99}{262144}\,b_2{}^8b_6x^6y^{17}-\frac{1269}{256}\,b_6b_4{}^3b_2{}^2x^6y^{17}-\frac{345}{32}\,b_6b_4{}^4x^6y^{17}-\frac{2295}{128}\,b_6{}^2b_2b_4{}^2x^6y^{17}-$$
$$\frac{265}{16384}\,b_2{}^6b_6b_4x^5y^{18}-\frac{45}{2048}\,b_4{}^2b_6b_2{}^4x^5y^{18}+\frac{79}{16}\,b_6{}^2b_2b_4{}^2x^5y^{18}-\frac{1}{262144}\,b_2{}^9b_4x^5y^{18}-5/2\,b_2b_4{}^5x^5y^{18}-$$
$$\frac{725}{256}\,b_6b_4{}^3b_2{}^2x^5y^{18}-\frac{5}{32}\,b_2{}^3b_4{}^4x^5y^{18}+\frac{2077}{16384}\,b_2{}^5b_6{}^2x^5y^{18}-\frac{1}{16384}\,b_2{}^7b_4{}^2x^5y^{18}-\frac{89}{262144}\,b_2{}^8b_6x^5y^{18}-$$
$$\frac{281}{32}\,b_6b_4{}^4x^5y^{18}+\frac{3885}{1024}\,b_4b_6{}^2b_2{}^3x^5y^{18}+\frac{27}{2048}\,b_2{}^5b_4{}^3x^5y^{18}+\frac{3037}{1024}\,b_6{}^3b_2{}^2x^5y^{18}+\frac{141}{64}\,b_6{}^3b_4x^5y^{18}+$$
$$\frac{635}{256}\,b_6b_4{}^3b_2{}^2x^4y^{19}-\frac{365}{16384}\,b_2{}^6b_6b_4x^4y^{19}+\frac{1405}{512}\,b_6{}^3b_2{}^2x^4y^{19}+\frac{125}{32}\,b_6b_4{}^4x^4y^{19}-\frac{575}{4096}\,b_4{}^2b_6b_2{}^4x^4y^{19}-$$
$$\frac{35}{131072}\,b_2{}^8b_6x^4y^{19}+\frac{425}{16384}\,b_2{}^5b_6{}^2x^4y^{19}+\frac{645}{256}\,b_4b_6{}^2b_2{}^3x^4y^{19}+\frac{2155}{128}\,b_6{}^2b_2b_4{}^2x^4y^{19}+\frac{525}{64}\,b_6{}^3b_4x^4y^{19}+$$
$$\frac{399}{64}\,b_6{}^2b_2b_4{}^2x^3y^{20}-\frac{623}{16384}\,b_2{}^5b_6{}^2x^3y^{20}+\frac{161}{32}\,b_6b_4{}^4x^3y^{20}+\frac{21}{512}\,b_4b_6{}^2b_2{}^3x^3y^{20}-\frac{203}{8192}\,b_2{}^6b_6b_4x^3y^{20}-$$
$$\frac{31}{131072}\,b_2{}^8b_6x^3y^{20}+\frac{21}{8}\,b_6{}^3b_4x^3y^{20}+\frac{35}{16}\,b_2b_4{}^5x^3y^{20}+\frac{77}{32}\,b_6b_4{}^3b_2{}^2x^3y^{20}-\frac{1085}{4096}\,b_4{}^2b_6b_2{}^4x^3y^{20}+$$
$$\frac{7}{2048}\,b_2{}^5b_4{}^3x^3y^{20}+\frac{245}{512}\,b_6{}^3b_2{}^2x^3y^{20}+\frac{245}{512}\,b_2{}^3b_4{}^4x^3y^{20}-\frac{1}{262144}\,b_2{}^9b_4x^3y^{20}-\frac{17}{32768}\,b_2{}^7b_4{}^2x^3y^{20}-$$
$$\frac{77}{32}\,b_6b_4{}^4x^2y^{21}-\frac{231}{256}\,b_6{}^3b_2{}^2x^2y^{21}-\frac{33}{262144}\,b_2{}^8b_6x^2y^{21}-\frac{231}{4096}\,b_2{}^5b_6{}^2x^2y^{21}-\frac{231}{128}\,b_4b_6{}^2b_2{}^3x^2y^{21}-$$
$$\frac{1155}{2048}\,b_4{}^2b_6b_2{}^4x^2y^{21}-\frac{231}{64}\,b_6b_4{}^3b_2{}^2x^2y^{21}-\frac{33}{16}\,b_6{}^3b_4x^2y^{21}-\frac{77}{4096}\,b_2{}^6b_6b_4x^2y^{21}-\frac{231}{32}\,b_6{}^2b_2b_4{}^2x^2y^{21}-$$
$$\frac{63}{32}\,b_2b_4{}^5(x)y^{22}-\frac{441}{256}\,b_4b_6{}^2b_2{}^3(x)y^{22}-\frac{9}{8192}\,b_2{}^7b_4{}^2(x)y^{22}-\frac{63}{8}\,b_6{}^2b_2b_4{}^2(x)y^{22}-\frac{189}{32}\,b_6b_4{}^3b_2{}^2(x)y^{22}-$$
$$\frac{105}{128}\,b_2{}^3b_4{}^4(x)y^{22}-\frac{63}{1024}\,b_2{}^5b_4{}^3(x)y^{22}-\frac{27}{262144}\,b_2{}^8b_6(x)y^{22}-\frac{189}{4096}\,b_2{}^5b_6{}^2(x)y^{22}-\frac{1}{262144}\,b_2{}^9b_4(x)y^{22}-$$
$$\frac{21}{1024}\,b_2{}^6b_6b_4(x)y^{22}-\frac{147}{32}\,b_6b_4{}^4(x)y^{22}-\frac{15}{8}\,b_6{}^3b_4(x)y^{22}-\frac{1575}{2048}\,b_4{}^2b_6b_2{}^4(x)y^{22}-\frac{189}{256}\,b_6{}^3b_2{}^2(x)y^{22}$$
$$-\frac{21}{16}\,b_4{}^6x^{24}(y)-\frac{135}{16}\,b_6{}^2b_4{}^3x^{24}(y)-\frac{105}{4096}\,b_2{}^6b_4{}^3x^{24}(y)-\frac{75}{16}\,b_2b_6{}^3b_4x^{24}(y)-\frac{15}{524288}\,b_2{}^9b_6x^{24}(y)-$$
$$\frac{315}{16384}\,b_2{}^6b_6{}^2x^{24}(y)-\frac{1575}{4096}\,b_2{}^5b_6b_4{}^2x^{24}(y)-\frac{45}{131072}\,b_2{}^8b_4{}^2x^{24}(y)-\frac{45}{128}\,b_6{}^4x^{24}(y)-\frac{525}{1024}\,b_2{}^4b_4{}^4x^{24}(y)-$$
$$\frac{1}{1048576}\,b_2{}^{10}b_4x^{24}(y)-\frac{315}{128}\,b_2{}^2b_4{}^5x^{24}(y)-\frac{735}{64}\,b_6b_4{}^4b_2x^{24}(y)-\frac{15}{2048}\,b_4b_2{}^7b_6x^{24}(y)-\frac{2205}{2048}\,b_4b_6{}^2b_2{}^4x^{24}(y)-$$
$$\frac{315}{32}\,b_6{}^2b_4{}^2b_2{}^2x^{24}(y)-\frac{315}{64}\,b_6b_4{}^3b_2{}^3x^{24}(y)-\frac{315}{512}\,b_6{}^3b_2{}^3x^{24}(y)-\frac{27}{4}\,b_6{}^2b_4{}^3x^{23}y^2-\frac{189}{64}\,b_6b_4{}^3b_2{}^3x^{23}y^2-$$
$$\frac{27}{64}\,b_6{}^4x^{23}y^2-\frac{27}{4096}\,b_4b_2{}^7b_6x^{23}y^2-\frac{189}{256}\,b_6{}^3b_2{}^3x^{23}y^2-\frac{9}{262144}\,b_2{}^9b_6x^{23}y^2-\frac{81}{16}\,b_2b_6{}^3b_4x^{23}y^2-$$
$$\frac{189}{8192}\,b_2{}^6b_6{}^2x^{23}y^2-\frac{189}{32}\,b_6b_4{}^4b_2x^{23}y^2-\frac{567}{64}\,b_6{}^2b_4{}^2b_2{}^2x^{23}y^2-\frac{567}{512}\,b_4b_6{}^2b_2{}^4x^{23}y^2-\frac{567}{2048}\,b_2{}^5b_6b_4{}^2x^{23}y^2+$$
$$7/4\,b_4{}^6x^{22}y^3+\frac{189}{1024}\,b_6{}^3b_2{}^3x^{22}y^3+\frac{9}{16}\,b_6{}^4x^{22}y^3-\frac{39}{4096}\,b_4b_2{}^7b_6x^{22}y^3-\frac{1617}{8192}\,b_2{}^5b_6b_4{}^2x^{22}y^3-$$
$$\frac{63}{256}\,b_4b_6{}^2b_2{}^4x^{22}y^3-\frac{3}{16384}\,b_2{}^8b_4{}^2x^{22}y^3+\frac{75}{8}\,b_6{}^2b_4{}^3x^{22}y^3-\frac{7}{4096}\,b_2{}^6b_4{}^3x^{22}y^3+\frac{105}{512}\,b_2{}^4b_4{}^4x^{22}y^3+$$
$$\frac{105}{128}\,b_6b_4{}^3b_2{}^3x^{22}y^3-\frac{69}{1048576}\,b_2{}^9b_6x^{22}y^3+\frac{1155}{128}\,b_6b_4{}^4b_2x^{22}y^3+\frac{273}{128}\,b_2{}^2b_4{}^5x^{22}y^3-\frac{315}{16384}\,b_2{}^6b_6{}^2x^{22}y^3+$$
$$\frac{147}{32}\,b_6{}^2b_4{}^2b_2{}^2x^{22}y^3-\frac{1}{1048576}\,b_2{}^{10}b_4x^{22}y^3+\frac{147}{32}\,b_2b_6{}^3b_4x^{22}y^3+\frac{231}{256}\,b_6b_4{}^3b_2{}^3x^{21}y^4-\frac{77}{1048576}\,b_2{}^9b_6x^{21}y^4+$$
$$\frac{3927}{256}\,b_6{}^2b_4{}^2b_2{}^2x^{21}y^4+\frac{1771}{1024}\,b_6{}^3b_2{}^3x^{21}y^4+\frac{1023}{64}\,b_2b_6{}^3b_4x^{21}y^4-\frac{1155}{8192}\,b_2{}^5b_6b_4{}^2x^{21}y^4+\frac{847}{128}\,b_6b_4{}^4b_2x^{21}y^4+$$
$$\frac{275}{16}\,b_6{}^2b_4{}^3x^{21}y^4+\frac{495}{256}\,b_6{}^4x^{21}y^4+\frac{77}{32768}\,b_2{}^6b_6{}^2x^{21}y^4-\frac{143}{16384}\,b_4b_2{}^7b_6x^{21}y^4+\frac{2079}{2048}\,b_4b_6{}^2b_2{}^4x^{21}y^4-$$
$$\frac{1}{1048576}\,b_2{}^{10}b_4x^{20}y^5+\frac{81}{128}\,b_6{}^4x^{20}y^5+\frac{37}{8192}\,b_2{}^6b_4{}^3x^{20}y^5+\frac{2489}{65536}\,b_2{}^6b_6{}^2x^{20}y^5-\frac{25}{4}\,b_6{}^2b_4{}^3x^{20}y^5-$$
$$\frac{5}{2048}\,b_2{}^4b_4{}^4x^{20}y^5-\frac{55}{32}\,b_2{}^2b_4{}^5x^{20}y^5-5/2\,b_4{}^6x^{20}y^5-\frac{1625}{128}\,b_6b_4{}^4b_2x^{20}y^5+\frac{267}{32}\,b_2b_6{}^3b_4x^{20}y^5-$$
$$\frac{145}{128}\,b_6b_4{}^3b_2{}^3x^{20}y^5+\frac{4645}{2048}\,b_6{}^3b_2{}^3x^{20}y^5-\frac{837}{16384}\,b_2{}^5b_6b_4{}^2x^{20}y^5-\frac{7}{131072}\,b_2{}^8b_4{}^2x^{20}y^5-\frac{25}{262144}\,b_2{}^9b_6x^{20}y^5+$$
$$\frac{2049}{1024}\,b_4b_6{}^2b_2{}^4x^{20}y^5+\frac{2315}{256}\,b_6{}^2b_4{}^2b_2{}^2x^{20}y^5-\frac{243}{32768}\,b_4b_2{}^7b_6x^{20}y^5-\frac{535}{256}\,b_6b_4{}^3b_2{}^3x^{19}y^6-\frac{55}{524288}\,b_2{}^9b_6x^{19}y^6-$$
$$\frac{755}{16384}\,b_2{}^5b_6b_4{}^2x^{19}y^6-\frac{2785}{512}\,b_6{}^2b_4{}^2b_2{}^2x^{19}y^6+\frac{1355}{16384}\,b_2{}^6b_6{}^2x^{19}y^6+\frac{135}{256}\,b_6{}^3b_2{}^3x^{19}y^6-\frac{1015}{32}\,b_6{}^2b_4{}^3x^{19}y^6-$$
$$\frac{205}{32768}\,b_4b_2{}^7b_6x^{19}y^6+\frac{2435}{1024}\,b_4b_6{}^2b_2{}^4x^{19}y^6-\frac{315}{64}\,b_6{}^4x^{19}y^6-\frac{2765}{128}\,b_2b_6{}^3b_4x^{19}y^6-\frac{1945}{128}\,b_6b_4{}^4b_2x^{19}y^6+$$
$$\frac{4379}{32768}\,b_2{}^6b_6{}^2x^{18}y^7-\frac{2643}{1024}\,b_6b_4{}^3b_2{}^3x^{18}y^7-\frac{1}{1048576}\,b_2{}^{10}b_4x^{18}y^7-\frac{10665}{1024}\,b_6{}^2b_4{}^2b_2{}^2x^{18}y^7+\frac{521}{64}\,b_6b_4{}^4b_2x^{18}y^7+$$
$$4\,b_4{}^6x^{18}y^7+\frac{11}{8192}\,b_2{}^6b_4{}^3x^{18}y^7+\frac{7763}{4096}\,b_4b_6{}^2b_2{}^4x^{18}y^7-\frac{2313}{256}\,b_6{}^4x^{18}y^7+\frac{9}{8}\,b_2{}^2b_4{}^5x^{18}y^7+\frac{3}{65536}\,b_2{}^8b_4{}^2x^{18}y^7-$$
$$\frac{49}{32}\,b_6{}^2b_4{}^3x^{18}y^7-\frac{123}{1048576}\,b_2{}^9b_6x^{18}y^7-\frac{471}{4096}\,b_2{}^5b_6b_4{}^2x^{18}y^7-\frac{16171}{4096}\,b_6{}^3b_2{}^3x^{18}y^7-\frac{25}{256}\,b_2{}^4b_4{}^4x^{18}y^7-$$
$$\frac{5735}{128}\,b_2b_6{}^3b_4x^{18}y^7-\frac{119}{32768}\,b_4b_2{}^7b_6x^{18}y^7-\frac{45039}{4096}\,b_6{}^3b_2{}^3x^{17}y^8-\frac{1503}{64}\,b_2b_6{}^3b_4x^{17}y^8-\frac{135}{1048576}\,b_2{}^9b_6x^{17}y^8+$$

$$\frac{1257}{64}\,b_6b_4{}^4b_2x^{17}y^8-\frac{165}{1024}\,b_6{}^2b_4{}^2b_2{}^2x^{17}y^8+\frac{2235}{32}\,b_6{}^2b_4{}^3x^{17}y^8-\frac{2355}{1024}\,b_6b_4{}^3b_2{}^3x^{17}y^8+\frac{243}{128}\,b_6{}^4x^{17}y^8-\frac{729}{4096}\,b_2{}^5b_6b_4{}^2x^{17}y^8+\frac{2529}{4096}\,b_4b_6{}^2b_2{}^4x^{17}y^8+\frac{12171}{65536}\,b_2{}^6b_6{}^2x^{17}y^8-\frac{63}{32768}\,b_4b_2{}^7b_6x^{17}y^8+\frac{7653}{32768}\,b_2{}^6b_6{}^2x^{16}y^9-\frac{69}{524288}\,b_2{}^9b_6x^{16}y^9+\frac{657}{16}\,b_6{}^4x^{16}y^9+\frac{15}{131072}\,b_2{}^8b_4{}^2x^{16}y^9-\frac{4179}{4096}\,b_4b_6{}^2b_2{}^4x^{16}y^9+\frac{879}{16}\,b_6{}^2b_4{}^3x^{16}y^9-\frac{1}{8192}\,b_4b_2{}^7b_6x^{16}y^9-\frac{5}{1024}\,b_2{}^6b_4{}^3x^{16}y^9-\frac{1}{1048576}\,b_2{}^{10}b_4x^{16}y^9-\frac{431}{64}\,b_6b_4{}^4b_2x^{16}y^9-\frac{40203}{2048}\,b_6{}^3b_2{}^3x^{16}y^9-\frac{605}{2048}\,b_2{}^5b_6b_4{}^2x^{16}y^9+\frac{43}{64}\,b_6b_4{}^3b_2{}^3x^{16}y^9+\frac{3423}{64}\,b_2b_6{}^3b_4x^{16}y^9+\frac{11775}{512}\,b_6{}^2b_4{}^2b_2{}^2x^{16}y^9-8\,b_4{}^6x^{16}y^9+\frac{5}{64}\,b_2{}^4b_4{}^4x^{16}y^9+\frac{10251}{64}\,b_2b_6{}^3b_4x^{15}y^{10}+\frac{6921}{64}\,b_6{}^4x^{15}y^{10}+\frac{275}{64}\,b_6b_4{}^3b_2{}^3x^{15}y^{10}-\frac{19}{131072}\,b_2{}^9b_6x^{15}y^{10}+\frac{9}{4096}\,b_4b_2{}^7b_6x^{15}y^{10}+\frac{1119}{4096}\,b_2{}^6b_6{}^2x^{15}y^{10}-\frac{893}{2048}\,b_2{}^5b_6b_4{}^2x^{15}y^{10}+\frac{15063}{256}\,b_6{}^2b_4{}^2b_2{}^2x^{15}y^{10}-\frac{2717}{16}\,b_6{}^2b_4{}^3x^{15}y^{10}-\frac{2817}{1024}\,b_4b_6{}^2b_2{}^4x^{15}y^{10}-\frac{28849}{1024}\,b_6{}^3b_2{}^3x^{15}y^{10}-\frac{2607}{64}\,b_6b_4{}^4b_2x^{15}y^{10}+\frac{15}{8192}\,b_4b_2{}^7b_6x^{14}y^{11}+32\,b_4{}^6x^{14}y^{11}-\frac{1}{1048576}\,b_2{}^{10}b_4x^{14}y^{11}-5\,b_2{}^2b_4{}^5x^{14}y^{11}+\frac{1245}{4096}\,b_2{}^6b_6{}^2x^{14}y^{11}+\frac{5}{16}\,b_2{}^4b_4{}^4x^{14}y^{11}+\frac{16323}{64}\,b_2b_6{}^3b_4x^{14}y^{11}+\frac{104755}{1024}\,b_6{}^2b_4{}^2b_2{}^2x^{14}y^{11}-\frac{5}{512}\,b_2{}^6b_4{}^3x^{14}y^{11}+\frac{46737}{256}\,b_6{}^4x^{14}y^{11}-\frac{142751}{4096}\,b_6{}^3b_2{}^3x^{14}y^{11}-\frac{18159}{4096}\,b_4b_6{}^2b_2{}^4x^{14}y^{11}-\frac{145}{1048576}\,b_2{}^9b_6x^{14}y^{11}+\frac{4403}{1024}\,b_6b_4{}^3b_2{}^3x^{14}y^{11}-\frac{1755}{4096}\,b_2{}^5b_6b_4{}^2x^{14}y^{11}+\frac{5}{32768}\,b_2{}^8b_4{}^2x^{14}y^{11}-\frac{5347}{128}\,b_6b_4{}^4b_2x^{14}y^{11}-\frac{8861}{16}\,b_6{}^2b_4{}^3x^{14}y^{11}-\frac{5}{128}\,b_2{}^6b_4{}^3x^{13}y^{12}+64\,b_4{}^6x^{13}y^{12}+\frac{1}{16777216}\,b_2{}^{12}x^{13}y^{12}+\frac{10565}{32768}\,b_2{}^6b_6{}^2x^{13}y^{12}+\frac{1843}{1024}\,b_6b_4{}^3b_2{}^3x^{13}y^{12}+\frac{15}{16384}\,b_2{}^8b_4{}^2x^{13}y^{12}+\frac{15}{16}\,b_2{}^4b_4{}^4x^{13}y^{12}-\frac{3}{262144}\,b_2{}^{10}b_4x^{13}y^{12}-\frac{1275}{4096}\,b_2{}^5b_6b_4{}^2x^{13}y^{12}+\frac{29691}{128}\,b_6{}^4x^{13}y^{12}-\frac{27493}{32}\,b_6{}^2b_4{}^3x^{13}y^{12}-12\,b_2{}^2b_4{}^5x^{13}y^{12}-\frac{157415}{4096}\,b_6{}^3b_2{}^3x^{13}y^{12}+\frac{137507}{1024}\,b_6{}^2b_4{}^2b_2{}^2x^{13}y^{12}+\frac{19721}{64}\,b_2b_6{}^3b_4x^{13}y^{12}-\frac{125}{1048576}\,b_2{}^9b_6x^{13}y^{12}-\frac{5}{8192}\,b_4b_2{}^7b_6x^{13}y^{12}-\frac{2787}{128}\,b_6b_4{}^4b_2x^{13}y^{12}-\frac{11435}{2048}\,b_4b_6{}^2b_2{}^4x^{13}y^{12}+\frac{10565}{32768}\,b_2{}^6b_6{}^2x^{12}y^{13}-12\,b_2{}^2b_4{}^5x^{12}y^{13}-\frac{5}{128}\,b_2{}^6b_4{}^3x^{12}y^{13}+\frac{1843}{1024}\,b_6b_4{}^3b_2{}^3x^{12}y^{13}-\frac{3}{262144}\,b_2{}^{10}b_4x^{12}y^{13}+64\,b_4{}^6x^{12}y^{13}-\frac{5}{8192}\,b_4b_2{}^7b_6x^{12}y^{13}+\frac{1}{16777216}\,b_2{}^{12}x^{12}y^{13}-\frac{1275}{4096}\,b_2{}^5b_6b_4{}^2x^{12}y^{13}+\frac{15}{16}\,b_2{}^4b_4{}^4x^{12}y^{13}-\frac{125}{1048576}\,b_2{}^9b_6x^{12}y^{13}+\frac{19721}{64}\,b_2b_6{}^3b_4x^{12}y^{13}-\frac{157415}{4096}\,b_6{}^3b_2{}^3x^{12}y^{13}+\frac{15}{16384}\,b_2{}^8b_4{}^2x^{12}y^{13}-\frac{2787}{128}\,b_6b_4{}^4b_2x^{12}y^{13}-\frac{11435}{2048}\,b_4b_6{}^2b_2{}^4x^{12}y^{13}+\frac{137507}{1024}\,b_6{}^2b_4{}^2b_2{}^2x^{12}y^{13}+\frac{29691}{128}\,b_6{}^4x^{12}y^{13}-\frac{27493}{32}\,b_6{}^2b_4{}^3x^{12}y^{13}-\frac{142751}{4096}\,b_6{}^3b_2{}^3x^{11}y^{14}+\frac{104755}{1024}\,b_6{}^2b_4{}^2b_2{}^2x^{11}y^{14}+\frac{15}{8192}\,b_4b_2{}^7b_6x^{11}y^{14}-5\,b_2{}^2b_4{}^5x^{11}y^{14}+32\,b_4{}^6x^{11}y^{14}+\frac{16323}{64}\,b_2b_6{}^3b_4x^{11}y^{14}-\frac{18159}{4096}\,b_4b_6{}^2b_2{}^4x^{11}y^{14}-\frac{5}{512}\,b_2{}^6b_4{}^3x^{11}y^{14}+\frac{46737}{256}\,b_6{}^4x^{11}y^{14}-\frac{1755}{4096}\,b_2{}^5b_6b_4{}^2x^{11}y^{14}+\frac{1245}{4096}\,b_2{}^6b_6{}^2x^{11}y^{14}-\frac{1}{1048576}\,b_2{}^{10}b_4x^{11}y^{14}-\frac{8861}{16}\,b_6{}^2b_4{}^3x^{11}y^{14}+\frac{5}{32768}\,b_2{}^8b_4{}^2x^{11}y^{14}+\frac{4403}{1024}\,b_6b_4{}^3b_2{}^3x^{11}y^{14}-\frac{5347}{128}\,b_6b_4{}^4b_2x^{11}y^{14}+\frac{5}{16}\,b_2{}^4b_4{}^4x^{11}y^{14}-\frac{145}{1048576}\,b_2{}^9b_6x^{11}y^{14}-\frac{28849}{1024}\,b_6{}^3b_2{}^3x^{10}y^{15}-\frac{2817}{1024}\,b_4b_6{}^2b_2{}^4x^{10}y^{15}+\frac{15063}{256}\,b_6{}^2b_4{}^2b_2{}^2x^{10}y^{15}-\frac{19}{131072}\,b_2{}^9b_6x^{10}y^{15}-\frac{893}{2048}\,b_2{}^5b_6b_4{}^2x^{10}y^{15}+\frac{10251}{64}\,b_2b_6{}^3b_4x^{10}y^{15}+\frac{6921}{64}\,b_6{}^4x^{10}y^{15}+\frac{1119}{4096}\,b_2{}^6b_6{}^2x^{10}y^{15}-\frac{2607}{64}\,b_6b_4{}^4b_2x^{10}y^{15}+\frac{275}{64}\,b_6b_4{}^3b_2{}^3x^{10}y^{15}-\frac{2717}{16}\,b_6{}^2b_4{}^3x^{10}y^{15}+\frac{9}{4096}\,b_4b_2{}^7b_6x^{10}y^{15}+\frac{15}{131072}\,b_2{}^8b_4{}^2x^9y^{16}+\frac{7653}{32768}\,b_2{}^6b_6{}^2x^9y^{16}-\frac{1}{8192}\,b_4b_2{}^7b_6x^9y^{16}-\frac{605}{2048}\,b_2{}^5b_6b_4{}^2x^9y^{16}-\frac{4179}{4096}\,b_4b_6{}^2b_2{}^4x^9y^{16}+\frac{879}{16}\,b_6{}^2b_4{}^3x^9y^{16}-\frac{40203}{2048}\,b_6{}^3b_2{}^3x^9y^{16}+\frac{11775}{512}\,b_6{}^2b_4{}^2b_2{}^2x^9y^{16}-\frac{69}{524288}\,b_2{}^9b_6x^9y^{16}-\frac{431}{64}\,b_6b_4{}^4b_2x^9y^{16}-\frac{1}{1048576}\,b_2{}^{10}b_4x^9y^{16}-\frac{5}{1024}\,b_2{}^6b_4{}^3x^9y^{16}+\frac{3423}{64}\,b_2b_6{}^3b_4x^9y^{16}+\frac{5}{64}\,b_2{}^4b_4{}^4x^9y^{16}+\frac{657}{16}\,b_6{}^4x^9y^{16}+\frac{43}{64}\,b_6b_4{}^3b_2{}^3x^9y^{16}-8\,b_4{}^6x^9y^{16}+\frac{2235}{32}\,b_6{}^2b_4{}^3x^8y^{17}-\frac{165}{1024}\,b_6{}^2b_4{}^2b_2{}^2x^8y^{17}-\frac{729}{4096}\,b_2{}^5b_6b_4{}^2x^8y^{17}-\frac{1503}{64}\,b_2b_6{}^3b_4x^8y^{17}-\frac{45039}{4096}\,b_6{}^3b_2{}^3x^8y^{17}+\frac{2529}{4096}\,b_4b_6{}^2b_2{}^4x^8y^{17}-\frac{63}{32768}\,b_4b_2{}^7b_6x^8y^{17}+\frac{243}{128}\,b_6{}^4x^8y^{17}-\frac{135}{1048576}\,b_2{}^9b_6x^8y^{17}+\frac{1257}{64}\,b_6b_4{}^4b_2x^8y^{17}+\frac{12171}{65536}\,b_2{}^6b_6{}^2x^8y^{17}-\frac{2355}{1024}\,b_6b_4{}^3b_2{}^3x^8y^{17}-\frac{49}{32}\,b_6{}^2b_4{}^3x^7y^{18}-\frac{5735}{128}\,b_2b_6{}^3b_4x^7y^{18}+\frac{7763}{4096}\,b_4b_6{}^2b_2{}^4x^7y^{18}-\frac{2643}{1024}\,b_6b_4{}^3b_2{}^3x^7y^{18}-\frac{119}{32768}\,b_4b_2{}^7b_6x^7y^{18}-\frac{471}{4096}\,b_2{}^5b_6b_4{}^2x^7y^{18}+\frac{11}{8192}\,b_2{}^6b_4{}^3x^7y^{18}+4\,b_4{}^6x^7y^{18}-\frac{10665}{1024}\,b_6{}^2b_4{}^2b_2{}^2x^7y^{18}+\frac{3}{65536}\,b_2{}^8b_4{}^2x^7y^{18}-\frac{1}{1048576}\,b_2{}^{10}b_4x^7y^{18}-\frac{25}{256}\,b_2{}^4b_4{}^4x^7y^{18}+\frac{4379}{32768}\,b_2{}^6b_6{}^2x^7y^{18}+\frac{521}{64}\,b_6b_4{}^2b_2x^7y^{18}-\frac{123}{1048576}\,b_2{}^9b_6x^7y^{18}-\frac{16171}{4096}\,b_6{}^3b_2{}^3x^7y^{18}+\frac{9}{8}\,b_2{}^2b_4{}^5x^7y^{18}-\frac{2313}{256}\,b_6{}^4x^7y^{18}-\frac{1015}{32}\,b_6{}^2b_4{}^3x^6y^{19}+\frac{1355}{16384}\,b_2{}^6b_6{}^2x^6y^{19}-\frac{2785}{512}\,b_6{}^2b_4{}^2b_2{}^2x^6y^{19}+\frac{2435}{1024}\,b_4b_6{}^2b_2{}^4x^6y^{19}-\frac{1945}{128}\,b_6b_4{}^4b_2x^6y^{19}-\frac{535}{256}\,b_6b_4{}^3b_2{}^3x^6y^{19}-\frac{315}{64}\,b_6{}^4x^6y^{19}-\frac{55}{524288}\,b_2{}^9b_6x^6y^{19}-\frac{2765}{128}\,b_2b_6{}^3b_4x^6y^{19}+\frac{135}{256}\,b_6{}^3b_2{}^3x^6y^{19}-\frac{205}{32768}\,b_4b_2{}^7b_6x^6y^{19}-\frac{755}{16384}\,b_2{}^5b_6b_4{}^2x^6y^{19}-5/2\,b_4{}^6x^5y^{20}+\frac{267}{32}\,b_2b_6{}^3b_4x^5y^{20}+\frac{4645}{2048}\,b_6{}^3b_2{}^3x^5y^{20}-\frac{1625}{128}\,b_6b_4{}^4b_2x^5y^{20}+\frac{2315}{256}\,b_6{}^2b_4{}^2b_2{}^2x^5y^{20}-\frac{25}{4}\,b_6{}^2b_4{}^3x^5y^{20}-\frac{25}{262144}\,b_2{}^9b_6x^5y^{20}-\frac{145}{128}\,b_6b_4{}^3b_2{}^3x^5y^{20}+\frac{2049}{1024}\,b_4b_6{}^2b_2{}^4x^5y^{20}+\frac{2489}{65536}\,b_2{}^6b_6{}^2x^5y^{20}+\frac{81}{128}\,b_6{}^4x^5y^{20}-\frac{55}{32}\,b_2{}^2b_4{}^5x^5y^{20}-\frac{837}{16384}\,b_2{}^5b_6b_4{}^2x^5y^{20}+$$

$$\frac{37}{8192}\,b_2{}^6b_4{}^3x^5y^{20}-\frac{243}{32768}\,b_4b_2{}^7b_6x^5y^{20}-\frac{5}{2048}\,b_2{}^4b_4{}^4x^5y^{20}-\frac{7}{131072}\,b_2{}^8b_4{}^2x^5y^{20}-\frac{1}{1048576}\,b_2{}^{10}b_4x^5y^{20}-\frac{143}{16384}\,b_4b_2{}^7b_6x^4y^{21}+\frac{847}{128}\,b_6b_4{}^4b_2x^4y^{21}-\frac{1155}{8192}\,b_2{}^5b_6b_4{}^2x^4y^{21}+\frac{275}{16}\,b_6{}^2b_4{}^3x^4y^{21}+\frac{231}{256}\,b_6b_4{}^3b_2{}^3x^4y^{21}-\frac{77}{1048576}\,b_2{}^9b_6x^4y^{21}+\frac{1023}{64}\,b_2b_6{}^3b_4x^4y^{21}+\frac{1771}{1024}\,b_6{}^3b_2{}^3x^4y^{21}+\frac{77}{32768}\,b_2{}^6b_6{}^2x^4y^{21}+\frac{3927}{256}\,b_6{}^2b_4{}^2b_2{}^2x^4y^{21}+\frac{495}{256}\,b_6{}^4x^4y^{21}+\frac{2079}{2048}\,b_4b_6{}^2b_2{}^4x^4y^{21}-\frac{63}{256}\,b_4b_6{}^2b_2{}^4x^3y^{22}-\frac{1617}{8192}\,b_2{}^5b_6b_4{}^2x^3y^{22}+\frac{147}{32}\,b_6{}^2b_4{}^2b_2{}^2x^3y^{22}+\frac{105}{128}\,b_6b_4{}^3b_2{}^3x^3y^{22}+7/4\,b_4{}^6x^3y^{22}-\frac{39}{4096}\,b_4b_2{}^7b_6x^3y^{22}+\frac{273}{128}\,b_2{}^2b_4{}^5x^3y^{22}+\frac{9}{16}\,b_6{}^4x^3y^{22}+\frac{1155}{128}\,b_6b_4{}^4b_2x^3y^{22}+\frac{105}{512}\,b_2{}^4b_4{}^4x^3y^{22}+\frac{147}{32}\,b_2b_6{}^3b_4x^3y^{22}-\frac{1}{1048576}\,b_2{}^{10}b_4x^3y^{22}+\frac{189}{1024}\,b_6{}^3b_2{}^3x^3y^{22}-\frac{315}{16384}\,b_2{}^6b_6{}^2x^3y^{22}-\frac{69}{1048576}\,b_2{}^9b_6x^3y^{22}-\frac{7}{4096}\,b_2{}^6b_4{}^3x^3y^{22}-\frac{3}{16384}\,b_2{}^8b_4{}^2x^3y^{22}+\frac{75}{8}\,b_6{}^2b_4{}^3x^3y^{22}-\frac{27}{4096}\,b_4b_2{}^7b_6x^2y^{23}-\frac{189}{256}\,b_6{}^3b_2{}^3x^2y^{23}-\frac{9}{262144}\,b_2{}^9b_6x^2y^{23}-\frac{567}{64}\,b_6{}^2b_4{}^2b_2{}^2x^2y^{23}-\frac{567}{512}\,b_4b_6{}^2b_2{}^4x^2y^{23}-\frac{189}{32}\,b_6b_4{}^4b_2x^2y^{23}-\frac{567}{2048}\,b_2{}^5b_6b_4{}^2x^2y^{23}-\frac{81}{16}\,b_2b_6{}^3b_4x^2y^{23}-\frac{27}{4}\,b_6{}^2b_4{}^3x^2y^{23}-\frac{27}{64}\,b_6{}^4x^2y^{23}-\frac{189}{64}\,b_6b_4{}^3b_2{}^3x^2y^{23}-\frac{189}{8192}\,b_2{}^6b_6{}^2x^2y^{23}-\frac{45}{128}\,b_6{}^4(x)y^{24}-\frac{1}{1048576}\,b_2{}^{10}b_4(x)y^{24}-\frac{525}{1024}\,b_2{}^4b_4{}^4(x)y^{24}-\frac{2205}{2048}\,b_4b_6{}^2b_2{}^4(x)y^{24}-\frac{315}{64}\,b_6b_4{}^3b_2{}^3(x)y^{24}-\frac{21}{16}\,b_4{}^6(x)y^{24}-\frac{135}{16}\,b_6{}^2b_4{}^3(x)y^{24}-\frac{315}{128}\,b_2{}^2b_4{}^5(x)y^{24}-\frac{735}{64}\,b_6b_4{}^4b_2(x)y^{24}-\frac{15}{2048}\,b_4b_2{}^7b_6(x)y^{24}-\frac{1575}{4096}\,b_2{}^5b_6b_4{}^2(x)y^{24}-\frac{45}{131072}\,b_2{}^8b_4{}^2(x)y^{24}-\frac{315}{16384}\,b_2{}^6b_6{}^2(x)y^{24}-\frac{315}{32}\,b_6{}^2b_4{}^2b_2{}^2(x)y^{24}-\frac{75}{16}\,b_2b_6{}^3b_4(x)y^{24}-\frac{15}{524288}\,b_2{}^9b_6(x)y^{24}-\frac{315}{512}\,b_6{}^3b_2{}^3(x)y^{24}-\frac{105}{4096}\,b_2{}^6b_4{}^3(x)y^{24}-\frac{495}{512}\,b_2b_6{}^4x^{26}(y)-\frac{3465}{8192}\,b_6{}^3b_2{}^4x^{26}(y)-\frac{1}{4194304}\,b_2{}^{11}b_4x^{26}(y)-\frac{55}{524288}\,b_2{}^9b_4{}^2x^{26}(y)-\frac{1155}{4096}\,b_4{}^2b_2{}^5x^{26}(y)-\frac{165}{16384}\,b_2{}^7b_4{}^3x^{26}(y)-\frac{33}{4194304}\,b_2{}^{10}b_6x^{26}(y)-\frac{3465}{1024}\,b_2{}^4b_6b_4{}^3x^{26}(y)-\frac{495}{65536}\,b_2{}^7b_6{}^2x^{26}(y)-\frac{1155}{512}\,b_2{}^3b_4{}^5x^{26}(y)-\frac{33}{4}\,b_6b_4{}^5x^{26}(y)-\frac{231}{64}\,b_2b_4{}^6x^{26}(y)-\frac{1155}{128}\,b_6{}^2b_4{}^2b_2{}^3x^{26}(y)-\frac{8085}{512}\,b_6b_4{}^4b_2{}^2x^{26}(y)-\frac{5775}{32768}\,b_2{}^6b_6b_4{}^2x^{26}(y)-\frac{1485}{64}\,b_4{}^3b_6{}^2b_2x^{26}(y)-\frac{825}{128}\,b_4b_6{}^3b_2{}^2x^{26}(y)-\frac{165}{65536}\,b_2{}^8b_4b_6x^{26}(y)-\frac{4851}{8192}\,b_6{}^2b_4b_2{}^5x^{26}(y)-\frac{1815}{256}\,b_4{}^2b_6{}^3x^{26}(y)-\frac{4095}{2048}\,b_2{}^4b_6b_4{}^3x^{25}y^2-\frac{585}{65536}\,b_2{}^7b_6{}^2x^{25}y^2-\frac{4095}{512}\,b_6b_4{}^4b_2{}^2x^{25}y^2-\frac{117}{32}\,b_6b_4{}^5x^{25}y^2-\frac{2457}{4096}\,b_6{}^2b_4b_2{}^5x^{25}y^2-\frac{585}{512}\,b_2b_6{}^4x^{25}y^2-\frac{4095}{8192}\,b_6{}^3b_2{}^4x^{25}y^2-\frac{39}{4194304}\,b_2{}^{10}b_6x^{25}y^2-\frac{4095}{512}\,b_6{}^2b_4{}^2b_2{}^3x^{25}y^2-\frac{585}{262144}\,b_2{}^8b_4b_6x^{25}y^2-\frac{4095}{32768}\,b_2{}^6b_6b_4{}^2x^{25}y^2-\frac{1755}{256}\,b_4{}^2b_6{}^3x^{25}y^2-\frac{1755}{256}\,b_4b_6{}^3b_2{}^2x^{25}y^2-\frac{585}{32}\,b_4{}^3b_6{}^2b_2x^{25}y^2-\frac{453}{131072}\,b_2{}^8b_4b_6x^{24}y^3+\frac{141}{16}\,b_6b_4{}^5x^{24}y^3+\frac{777}{512}\,b_2{}^3b_4{}^5x^{24}y^3-\frac{1}{4194304}\,b_2{}^{11}b_4x^{24}y^3+\frac{267}{64}\,b_4b_6{}^3b_2{}^2x^{24}y^3+\frac{63}{16}\,b_2b_4{}^6x^{24}y^3+\frac{21}{2048}\,b_6{}^3b_2{}^4x^{24}y^3+\frac{1119}{128}\,b_4{}^2b_6{}^3x^{24}y^3+\frac{147}{128}\,b_2b_6{}^4x^{24}y^3-\frac{1}{16384}\,b_2{}^9b_4{}^2x^{24}y^3-\frac{141}{16384}\,b_2{}^7b_6{}^2x^{24}y^3+\frac{1185}{64}\,b_4{}^3b_6{}^2b_2x^{24}y^3+\frac{483}{256}\,b_6{}^2b_4{}^2b_2{}^3x^{24}y^3-\frac{19}{1048576}\,b_2{}^{10}b_6x^{24}y^3-\frac{1869}{16384}\,b_2{}^6b_6b_4{}^2x^{24}y^3+\frac{147}{2048}\,b_4{}^4b_2{}^5x^{24}y^3-\frac{27}{16384}\,b_2{}^7b_4{}^3x^{24}y^3+\frac{273}{32}\,b_6b_4{}^4b_2{}^2x^{24}y^3-\frac{2079}{8192}\,b_6{}^2b_4b_2{}^5x^{24}y^3-\frac{21}{256}\,b_2{}^4b_6b_4{}^3x^{24}y^3-\frac{91}{1024}\,b_2{}^6b_6b_4{}^2x^{23}y^4-\frac{21}{1048576}\,b_2{}^{10}b_6x^{23}y^4+\frac{2597}{256}\,b_6{}^2b_4{}^2b_2{}^3x^{23}y^4+\frac{2217}{128}\,b_4b_6{}^3b_2{}^2x^{23}y^4+\frac{291}{8}\,b_4{}^3b_6{}^2b_2x^{23}y^4+\frac{21}{1024}\,b_2{}^4b_6b_4{}^3x^{23}y^4+\frac{231}{256}\,b_6{}^3b_2{}^4x^{23}y^4+\frac{1425}{64}\,b_4{}^2b_6{}^3x^{23}y^4+\frac{1107}{256}\,b_2b_6{}^4x^{23}y^4-\frac{51}{32768}\,b_2{}^7b_6{}^2x^{23}y^4+\frac{85}{16}\,b_6b_4{}^5x^{23}y^4-\frac{419}{131072}\,b_2{}^8b_4b_6x^{23}y^4+\frac{21}{64}\,b_6{}^2b_4b_2{}^5x^{23}y^4+\frac{749}{128}\,b_6b_4{}^4b_2{}^2x^{23}y^4+\frac{681}{65536}\,b_2{}^7b_6{}^2x^{22}y^5-\frac{35}{8}\,b_2b_4{}^6x^{22}y^5-\frac{105}{128}\,b_2{}^3b_4{}^5x^{22}y^5+\frac{327}{256}\,b_4{}^2b_6{}^3x^{22}y^5+\frac{22911}{16384}\,b_6{}^3b_2{}^4x^{22}y^5-\frac{453}{32}\,b_6b_4{}^5x^{22}y^5+\frac{1659}{128}\,b_4b_6{}^3b_2{}^2x^{22}y^5-\frac{13}{524288}\,b_2{}^9b_4{}^2x^{22}y^5+\frac{41}{32768}\,b_2{}^7b_4{}^3x^{22}y^5-\frac{1}{4194304}\,b_2{}^{11}b_4x^{22}y^5+\frac{2403}{1024}\,b_2b_6{}^4x^{22}y^5-\frac{2961}{65536}\,b_2{}^6b_6b_4{}^2x^{22}y^5+\frac{189}{8192}\,b_4{}^4b_2{}^5x^{22}y^5-\frac{789}{262144}\,b_2{}^8b_4b_6x^{22}y^5+\frac{4599}{512}\,b_6{}^2b_4{}^2b_2{}^3x^{22}y^5-\frac{231}{512}\,b_2{}^4b_6b_4{}^3x^{22}y^5-\frac{183}{64}\,b_4{}^3b_6{}^2b_2x^{22}y^5-\frac{111}{4194304}\,b_2{}^{10}b_6x^{22}y^5+\frac{14805}{16384}\,b_6{}^2b_4b_2{}^5x^{22}y^5-\frac{2625}{256}\,b_6b_4{}^4b_2{}^2x^{22}y^5-\frac{2541}{65536}\,b_2{}^6b_6b_4{}^2x^{21}y^6+\frac{2695}{1024}\,b_6{}^2b_4{}^2b_2{}^3x^{21}y^6-\frac{3157}{256}\,b_6b_4{}^4b_2{}^2x^{21}y^6-\frac{1441}{32}\,b_4{}^3b_6{}^2b_2x^{21}y^6-\frac{121}{4194304}\,b_2{}^{10}b_6x^{21}y^6-\frac{11}{4096}\,b_2{}^8b_4b_6x^{21}y^6-\frac{10857}{256}\,b_4{}^2b_6{}^3x^{21}y^6+\frac{847}{32768}\,b_2{}^7b_6{}^2x^{21}y^6-\frac{3465}{4096}\,b_2{}^4b_6b_4{}^3x^{21}y^6-\frac{6039}{512}\,b_4b_6{}^3b_2{}^2x^{21}y^6+\frac{10395}{8192}\,b_6{}^2b_4b_2{}^5x^{21}y^6-\frac{7689}{1024}\,b_2b_6{}^4x^{21}y^6-\frac{429}{32}\,b_6b_4{}^5x^{21}y^6+\frac{14245}{16384}\,b_6{}^3b_2{}^4x^{21}y^6-\frac{37}{1024}\,b_4{}^4b_2{}^5x^{20}y^7-\frac{69}{2097152}\,b_2{}^{10}b_6x^{20}y^7-\frac{843}{64}\,b_4{}^3b_6{}^2b_2x^{20}y^7+\frac{1}{262144}\,b_2{}^9b_4{}^2x^{20}y^7-\frac{6335}{4096}\,b_2{}^4b_6b_4{}^3x^{20}y^7-\frac{2505}{64}\,b_4{}^2b_6{}^3x^{20}y^7+\frac{21197}{16384}\,b_6{}^2b_4b_2{}^5x^{20}y^7+\frac{31}{32768}\,b_2{}^7b_4{}^3x^{20}y^7-\frac{1499}{32768}\,b_2{}^6b_6b_4{}^2x^{20}y^7-\frac{4289}{4096}\,b_6{}^3b_2{}^4x^{20}y^7+\frac{5815}{131072}\,b_2{}^7b_6{}^2x^{20}y^7-\frac{503}{262144}\,b_2{}^8b_4b_6x^{20}y^7+5\,b_2b_4{}^6x^{20}y^7+\frac{5}{32}\,b_2{}^3b_4{}^5x^{20}y^7-\frac{1}{4194304}\,b_2{}^{11}b_4x^{20}y^7-\frac{5}{64}\,b_6b_4{}^4b_2{}^2x^{20}y^7+\frac{35}{2}\,b_6b_4{}^5x^{20}y^7-\frac{8523}{512}\,b_2b_6{}^4x^{20}y^7-\frac{19103}{512}\,b_4b_6{}^3b_2{}^2x^{20}y^7-\frac{1253}{512}\,b_6{}^2b_4{}^2b_2{}^3x^{20}y^7-\frac{975}{16384}\,b_2{}^6b_6b_4{}^2x^{19}y^8-\frac{385}{262144}\,b_2{}^8b_4b_6x^{19}y^8-\frac{3609}{512}\,b_2b_6{}^4x^{19}y^8-\frac{20543}{512}\,b_4b_6{}^3b_2{}^2x^{19}y^8+\frac{377}{64}\,b_6b_4{}^4b_2{}^2x^{19}y^8+\frac{8365}{131072}\,b_2{}^7b_6{}^2x^{19}y^8+\frac{6303}{128}\,b_4{}^2b_6{}^3x^{19}y^8+\frac{8445}{128}\,b_4{}^3b_6{}^2b_2x^{19}y^8+\frac{16199}{16384}\,b_6{}^2b_4b_2{}^5x^{19}y^8-\frac{2901}{1024}\,b_6{}^2b_4{}^2b_2{}^3x^{19}y^8-\frac{75}{2097152}\,b_2{}^{10}b_6x^{19}y^8-\frac{6827}{4096}\,b_2{}^4b_6b_4{}^3x^{19}y^8+\frac{49}{2}\,b_6b_4{}^5x^{19}y^8-$$

$\frac{18191}{4096}\, b_6{}^3 b_2{}^4 x^{19} y^8 - \frac{99}{131072}\, b_2{}^8 b_4 b_6 x^{18} y^9 + \frac{37925}{1024}\, b_2 b_6{}^4 x^{18} y^9 - \frac{3}{4096}\, b_2{}^7 b_4{}^3 x^{18} y^9 - \frac{3187}{4096}\, b_2{}^4 b_6 b_4{}^3 x^{18} y^9 + \frac{9809}{128}\, b_4{}^3 b_6{}^2 b_2 x^{18} y^9 + 1/2\, b_2{}^3 b_4{}^5 x^{18} y^9 - \frac{157}{4194304}\, b_2{}^{10} b_6 x^{18} y^9 - \frac{4247}{512}\, b_4 b_6{}^3 b_2{}^2 x^{18} y^9 - \frac{18345}{2048}\, b_6{}^3 b_2{}^4 x^{18} y^9 - \frac{963}{32}\, b_6 b_4{}^5 x^{18} y^9 - \frac{1}{256}\, b_4{}^4 b_2{}^5 x^{18} y^9 + \frac{2521}{512}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{18} y^9 + \frac{7137}{16384}\, b_6{}^2 b_4 b_2{}^5 x^{18} y^9 + \frac{31951}{256}\, b_4{}^2 b_6{}^3 x^{18} y^9 + \frac{13}{524288}\, b_2{}^9 b_4{}^2 x^{18} y^9 - 6\, b_2 b_4{}^6 x^{18} y^9 + \frac{513}{256}\, b_6 b_4{}^4 b_2{}^2 x^{18} y^9 + \frac{1357}{16384}\, b_2{}^7 b_6{}^2 x^{18} y^9 - \frac{1}{4194304}\, b_2{}^{11} b_4 x^{18} y^9 - \frac{1653}{16384}\, b_2{}^6 b_6 b_4{}^2 x^{18} y^9 - \frac{5049}{128}\, b_4{}^3 b_6{}^2 b_2 x^{17} y^{10} + \frac{1641}{16384}\, b_2{}^7 b_6{}^2 x^{17} y^{10} - \frac{39}{262144}\, b_2{}^8 b_4 b_6 x^{17} y^{10} + \frac{119097}{1024}\, b_2 b_6{}^4 x^{17} y^{10} + \frac{11127}{512}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{17} y^{10} - \frac{2115}{32}\, b_6 b_4{}^5 x^{17} y^{10} - \frac{171}{4194304}\, b_2{}^{10} b_6 x^{17} y^{10} + \frac{429}{4096}\, b_2{}^4 b_6 b_4{}^3 x^{17} y^{10} - \frac{1023}{256}\, b_6 b_4{}^4 b_2{}^2 x^{17} y^{10} - \frac{4101}{256}\, b_4{}^2 b_6{}^3 x^{17} y^{10} + \frac{29049}{512}\, b_4 b_6{}^3 b_2{}^2 x^{17} y^{10} - \frac{4803}{16384}\, b_6{}^2 b_4 b_2{}^5 x^{17} y^{10} - \frac{2253}{16384}\, b_2{}^6 b_6 b_4{}^2 x^{17} y^{10} - \frac{28563}{2048}\, b_6{}^3 b_2{}^4 x^{17} y^{10} + \frac{5}{65536}\, b_2{}^8 b_4 b_6 x^{16} y^{11} + \frac{36585}{256}\, b_4 b_6{}^3 b_2{}^2 x^{16} y^{11} - \frac{38253}{2048}\, b_6{}^3 b_2{}^4 x^{16} y^{11} + \frac{42191}{1024}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{16} y^{11} - \frac{62985}{128}\, b_4{}^2 b_6{}^3 x^{16} y^{11} + 8\, b_2 b_4{}^6 x^{16} y^{11} - \frac{1}{4194304}\, b_2{}^{11} b_4 x^{16} y^{11} - \frac{26961}{128}\, b_4{}^3 b_6{}^2 b_2 x^{16} y^{11} + \frac{54513}{256}\, b_2 b_6{}^4 x^{16} y^{11} + \frac{1095}{1024}\, b_2{}^4 b_6 b_4{}^3 x^{16} y^{11} - 5/4\, b_2{}^3 b_4{}^5 x^{16} y^{11} + \frac{5}{64}\, b_4{}^4 b_2{}^5 x^{16} y^{11} + \frac{901}{16}\, b_6 b_4{}^5 x^{16} y^{11} - \frac{165}{1024}\, b_2{}^6 b_6 b_4{}^2 x^{16} y^{11} - \frac{21}{524288}\, b_2{}^{10} b_6 x^{16} y^{11} - \frac{16677}{16384}\, b_6{}^2 b_4 b_2{}^5 x^{16} y^{11} + \frac{5}{131072}\, b_2{}^9 b_4{}^2 x^{16} y^{11} - \frac{5}{2048}\, b_2{}^7 b_4{}^3 x^{16} y^{11} - \frac{2771}{128}\, b_6 b_4{}^4 b_2{}^2 x^{16} y^{11} + \frac{1875}{16384}\, b_2{}^7 b_6{}^2 x^{16} y^{11} - \frac{7891}{128}\, b_6 b_4{}^4 b_2{}^2 x^{15} y^{12} - \frac{22963}{1024}\, b_6{}^3 b_2{}^4 x^{15} y^{12} + \frac{3335}{1024}\, b_2{}^4 b_6 b_4{}^3 x^{15} y^{12} - \frac{23}{524288}\, b_2{}^{10} b_6 x^{15} y^{12} + \frac{58293}{256}\, b_4 b_6{}^3 b_2{}^2 x^{15} y^{12} + \frac{38283}{128}\, b_2 b_6{}^4 x^{15} y^{12} + \frac{1015}{8192}\, b_2{}^7 b_6{}^2 x^{15} y^{12} - \frac{37071}{32}\, b_4{}^2 b_6{}^3 x^{15} y^{12} + \frac{5509}{16}\, b_6 b_4{}^5 x^{15} y^{12} + \frac{55}{65536}\, b_2{}^8 b_4 b_6 x^{15} y^{12} + \frac{13959}{256}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{15} y^{12} - \frac{225}{1024}\, b_2{}^6 b_6 b_4{}^2 x^{15} y^{12} - \frac{21171}{64}\, b_4{}^3 b_6{}^2 b_2 x^{15} y^{12} - \frac{6165}{4096}\, b_6{}^2 b_4 b_2{}^5 x^{15} y^{12} - \frac{3139}{128}\, b_6{}^3 b_2{}^4 x^{14} y^{13} - \frac{211083}{128}\, b_4{}^2 b_6{}^3 x^{14} y^{13} + \frac{357741}{1024}\, b_2 b_6{}^4 x^{14} y^{13} + \frac{3}{1048576}\, b_2{}^{11} b_4 x^{14} y^{13} + \frac{4195}{32768}\, b_2{}^7 b_6{}^2 x^{14} y^{13} - 16\, b_2 b_4{}^6 x^{14} y^{13} + 3\, b_2{}^3 b_4{}^5 x^{14} y^{13} - \frac{25773}{256}\, b_6 b_4{}^4 b_2{}^2 x^{14} y^{13} - \frac{4785}{16384}\, b_2{}^6 b_6 b_4{}^2 x^{14} y^{13} + \frac{19159}{32}\, b_6 b_4{}^5 x^{14} y^{13} - \frac{15}{65536}\, b_2{}^9 b_4{}^2 x^{14} y^{13} + \frac{505}{262144}\, b_2{}^8 b_4 b_6 x^{14} y^{13} - \frac{15}{64}\, b_4{}^4 b_2{}^5 x^{14} y^{13} - \frac{6949}{4096}\, b_6{}^2 b_4 b_2{}^5 x^{14} y^{13} + \frac{23107}{4096}\, b_2{}^4 b_6 b_4{}^3 x^{14} y^{13} + \frac{61019}{1024}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{14} y^{13} + \frac{5}{512}\, b_2{}^7 b_4{}^3 x^{14} y^{13} - \frac{1}{67108864}\, b_2{}^{13} x^{14} y^{13} + \frac{144109}{512}\, b_4 b_6{}^3 b_2{}^2 x^{14} y^{13} - \frac{23943}{64}\, b_4{}^3 b_6{}^2 b_2 x^{14} y^{13} - \frac{105}{2097152}\, b_2{}^{10} b_6 x^{14} y^{13} + \frac{144109}{512}\, b_4 b_6{}^3 b_2{}^2 x^{13} y^{14} + \frac{505}{262144}\, b_2{}^8 b_4 b_6 x^{13} y^{14} + \frac{61019}{1024}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{13} y^{14} - \frac{6949}{4096}\, b_6{}^2 b_4 b_2{}^5 x^{13} y^{14} - \frac{15}{65536}\, b_2{}^9 b_4{}^2 x^{13} y^{14} + \frac{4195}{32768}\, b_2{}^7 b_6{}^2 x^{13} y^{14} - \frac{15}{64}\, b_4{}^4 b_2{}^5 x^{13} y^{14} + \frac{5}{512}\, b_2{}^7 b_4{}^3 x^{13} y^{14} - 16\, b_2 b_4{}^6 x^{13} y^{14} - \frac{25773}{256}\, b_6 b_4{}^4 b_2{}^2 x^{13} y^{14} + 3\, b_2{}^3 b_4{}^5 x^{13} y^{14} + \frac{19159}{32}\, b_6 b_4{}^5 x^{13} y^{14} + \frac{23107}{4096}\, b_2{}^4 b_6 b_4{}^3 x^{13} y^{14} + \frac{3}{1048576}\, b_2{}^{11} b_4 x^{13} y^{14} - \frac{211083}{128}\, b_4{}^2 b_6{}^3 x^{13} y^{14} - \frac{105}{2097152}\, b_2{}^{10} b_6 x^{13} y^{14} + \frac{357741}{1024}\, b_2 b_6{}^4 x^{13} y^{14} - \frac{1}{67108864}\, b_2{}^{13} x^{13} y^{14} - \frac{4785}{16384}\, b_2{}^6 b_6 b_4{}^2 x^{13} y^{14} - \frac{23943}{64}\, b_4{}^3 b_6{}^2 b_2 x^{13} y^{14} - \frac{3139}{128}\, b_6{}^3 b_2{}^4 x^{13} y^{14} + \frac{13959}{256}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{12} y^{15} + \frac{58293}{256}\, b_4 b_6{}^3 b_2{}^2 x^{12} y^{15} + \frac{5509}{16}\, b_6 b_4{}^5 x^{12} y^{15} + \frac{3335}{1024}\, b_2{}^4 b_6 b_4{}^3 x^{12} y^{15} - \frac{21171}{64}\, b_4{}^3 b_6{}^2 b_2 x^{12} y^{15} - \frac{225}{1024}\, b_2{}^6 b_6 b_4{}^2 x^{12} y^{15} - \frac{37071}{32}\, b_4{}^2 b_6{}^3 x^{12} y^{15} + \frac{1015}{8192}\, b_2{}^7 b_6{}^2 x^{12} y^{15} + \frac{55}{65536}\, b_2{}^8 b_4 b_6 x^{12} y^{15} - \frac{6165}{4096}\, b_6{}^2 b_4 b_2{}^5 x^{12} y^{15} - \frac{7891}{128}\, b_6 b_4{}^4 b_2{}^2 x^{12} y^{15} - \frac{23}{524288}\, b_2{}^{10} b_6 x^{12} y^{15} - \frac{22963}{1024}\, b_6{}^3 b_2{}^4 x^{12} y^{15} + \frac{38283}{128}\, b_2 b_6{}^4 x^{12} y^{15} + 8\, b_2 b_4{}^6 x^{11} y^{16} - \frac{2771}{128}\, b_6 b_4{}^4 b_2{}^2 x^{11} y^{16} - \frac{16677}{16384}\, b_6{}^2 b_4 b_2{}^5 x^{11} y^{16} + \frac{1095}{1024}\, b_2{}^4 b_6 b_4{}^3 x^{11} y^{16} + \frac{42191}{1024}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{11} y^{16} - \frac{38253}{2048}\, b_6{}^3 b_2{}^4 x^{11} y^{16} + \frac{1875}{16384}\, b_2{}^7 b_6{}^2 x^{11} y^{16} - 5/4\, b_2{}^3 b_4{}^5 x^{11} y^{16} + \frac{5}{64}\, b_4{}^4 b_2{}^5 x^{11} y^{16} - \frac{26961}{128}\, b_4{}^3 b_6{}^2 b_2 x^{11} y^{16} + \frac{901}{16}\, b_6 b_4{}^5 x^{11} y^{16} - \frac{1}{4194304}\, b_2{}^{11} b_4 x^{11} y^{16} + \frac{36585}{256}\, b_4 b_6{}^3 b_2{}^2 x^{11} y^{16} - \frac{165}{1024}\, b_2{}^6 b_6 b_4{}^2 x^{11} y^{16} + \frac{5}{131072}\, b_2{}^9 b_4{}^2 x^{11} y^{16} + \frac{5}{65536}\, b_2{}^8 b_4 b_6 x^{11} y^{16} - \frac{21}{524288}\, b_2{}^{10} b_6 x^{11} y^{16} - \frac{62985}{128}\, b_4{}^2 b_6{}^3 x^{11} y^{16} + \frac{54513}{256}\, b_2 b_6{}^4 x^{11} y^{16} - \frac{5}{2048}\, b_2{}^7 b_4{}^3 x^{11} y^{16} - \frac{4803}{16384}\, b_6{}^2 b_4 b_2{}^5 x^{10} y^{17} - \frac{171}{4194304}\, b_2{}^{10} b_6 x^{10} y^{17} + \frac{1641}{16384}\, b_2{}^7 b_6{}^2 x^{10} y^{17} - \frac{1023}{256}\, b_6 b_4{}^4 b_2{}^2 x^{10} y^{17} - \frac{28563}{2048}\, b_6{}^3 b_2{}^4 x^{10} y^{17} + \frac{119097}{1024}\, b_2 b_6{}^4 x^{10} y^{17} - \frac{5049}{128}\, b_4{}^3 b_6{}^2 b_2 x^{10} y^{17} + \frac{429}{4096}\, b_2{}^4 b_6 b_4{}^3 x^{10} y^{17} - \frac{2253}{16384}\, b_2{}^6 b_6 b_4{}^2 x^{10} y^{17} - \frac{2115}{32}\, b_6 b_4{}^5 x^{10} y^{17} + \frac{29049}{512}\, b_4 b_6{}^3 b_2{}^2 x^{10} y^{17} - \frac{4101}{256}\, b_4{}^2 b_6{}^3 x^{10} y^{17} - \frac{39}{262144}\, b_2{}^8 b_4 b_6 x^{10} y^{17} + \frac{11127}{512}\, b_6{}^2 b_4{}^2 b_2{}^3 x^{10} y^{17} + \frac{2521}{512}\, b_6{}^2 b_4{}^2 b_2{}^3 x^9 y^{18} + \frac{9809}{128}\, b_4{}^3 b_6{}^2 b_2 x^9 y^{18} - \frac{18345}{2048}\, b_6{}^3 b_2{}^4 x^9 y^{18} - \frac{1653}{16384}\, b_2{}^6 b_6 b_4{}^2 x^9 y^{18} - \frac{157}{4194304}\, b_2{}^{10} b_6 x^9 y^{18} - \frac{1}{256}\, b_4{}^4 b_2{}^5 x^9 y^{18} - \frac{4247}{512}\, b_4 b_6{}^3 b_2{}^2 x^9 y^{18} - \frac{963}{32}\, b_6 b_4{}^5 x^9 y^{18} + 1/2\, b_2{}^3 b_4{}^5 x^9 y^{18} - \frac{3}{4096}\, b_2{}^7 b_4{}^3 x^9 y^{18} + \frac{13}{524288}\, b_2{}^9 b_4{}^2 x^9 y^{18} + \frac{7137}{16384}\, b_6{}^2 b_4 b_2{}^5 x^9 y^{18} - \frac{99}{131072}\, b_2{}^8 b_4 b_6 x^9 y^{18} + \frac{513}{256}\, b_6 b_4{}^4 b_2{}^2 x^9 y^{18} - \frac{3187}{4096}\, b_2{}^4 b_6 b_4{}^3 x^9 y^{18} - \frac{1}{4194304}\, b_2{}^{11} b_4 x^9 y^{18} - 6\, b_2 b_4{}^6 x^9 y^{18} + \frac{37925}{1024}\, b_2 b_6{}^4 x^9 y^{18} + \frac{31951}{256}\, b_4{}^2 b_6{}^3 x^9 y^{18} + \frac{1357}{16384}\, b_2{}^7 b_6{}^2 x^9 y^{18} - \frac{18191}{4096}\, b_6{}^3 b_2{}^4 x^8 y^{19} - \frac{20543}{512}\, b_4 b_6{}^3 b_2{}^2 x^8 y^{19} + \frac{6303}{128}\, b_4{}^2 b_6{}^3 x^8 y^{19} - \frac{2901}{1024}\, b_6{}^2 b_4{}^2 b_2{}^3 x^8 y^{19} + \frac{8445}{128}\, b_4{}^3 b_6{}^2 b_2 x^8 y^{19} + \frac{377}{64}\, b_6 b_4{}^4 b_2{}^2 x^8 y^{19} + \frac{49}{2}\, b_6 b_4{}^5 x^8 y^{19} +$

$\frac{8365}{131072}\, b_2{}^7 b_6{}^2 x^8 y^{19} - \frac{6827}{4096}\, b_2{}^4 b_6 b_4{}^3 x^8 y^{19} - \frac{975}{16384}\, b_2{}^6 b_6 b_4{}^2 x^8 y^{19} - \frac{3609}{512}\, b_2 b_6{}^4 x^8 y^{19} - \frac{75}{2097152}\, b_2{}^{10} b_6 x^8 y^{19} - \frac{385}{262144}\, b_2{}^8 b_4 b_6 x^8 y^{19} + \frac{16199}{16384}\, b_6{}^2 b_4 b_2{}^5 x^8 y^{19} + \frac{35}{2}\, b_6 b_4{}^5 x^7 y^{20} + \frac{21197}{16384}\, b_6{}^2 b_4 b_2{}^5 x^7 y^{20} - \frac{1499}{32768}\, b_2{}^6 b_6 b_4{}^2 x^7 y^{20} - \frac{503}{262144}\, b_2{}^8 b_4 b_6 x^7 y^{20} + 5\, b_2 b_4{}^6 x^7 y^{20} - \frac{5}{64}\, b_6 b_4{}^4 b_2{}^2 x^7 y^{20} - \frac{19103}{512}\, b_4 b_6{}^3 b_2{}^2 x^7 y^{20} + \frac{5}{32}\, b_2{}^3 b_4{}^5 x^7 y^{20} + \frac{5815}{131072}\, b_2{}^7 b_6{}^2 x^7 y^{20} + \frac{31}{32768}\, b_2{}^7 b_4{}^3 x^7 y^{20} - \frac{1}{4194304}\, b_2{}^{11} b_4 x^7 y^{20} - \frac{8523}{512}\, b_2 b_6{}^4 x^7 y^{20} + \frac{1}{262144}\, b_2{}^9 b_4{}^2 x^7 y^{20} - \frac{4289}{4096}\, b_6{}^3 b_2{}^4 x^7 y^{20} - \frac{2505}{64}\, b_4{}^2 b_6{}^3 x^7 y^{20} - \frac{1253}{512}\, b_6{}^2 b_4{}^2 b_2{}^3 x^7 y^{20} - \frac{843}{64}\, b_4{}^3 b_6{}^2 b_2 x^7 y^{20} - \frac{37}{1024}\, b_4{}^4 b_2{}^5 x^7 y^{20} - \frac{6335}{4096}\, b_2{}^4 b_6 b_4{}^3 x^7 y^{20} - \frac{69}{2097152}\, b_2{}^{10} b_6 x^7 y^{20} - \frac{3157}{256}\, b_6 b_4{}^4 b_2{}^2 x^6 y^{21} + \frac{2695}{1024}\, b_6{}^2 b_4{}^2 b_2{}^3 x^6 y^{21} + \frac{847}{32768}\, b_2{}^7 b_6{}^2 x^6 y^{21} - \frac{7689}{1024}\, b_2 b_6{}^4 x^6 y^{21} - \frac{2541}{65536}\, b_2{}^6 b_6 b_4{}^2 x^6 y^{21} - \frac{121}{4194304}\, b_2{}^{10} b_6 x^6 y^{21} - \frac{1441}{32}\, b_4{}^3 b_6{}^2 b_2 x^6 y^{21} - \frac{6039}{512}\, b_4 b_6{}^3 b_2{}^2 x^6 y^{21} + \frac{10395}{8192}\, b_6{}^2 b_4 b_2{}^5 x^6 y^{21} - \frac{10857}{256}\, b_4{}^2 b_6{}^3 x^6 y^{21} - \frac{11}{4096}\, b_2{}^8 b_4 b_6 x^6 y^{21} - \frac{3465}{4096}\, b_2{}^4 b_6 b_4{}^3 x^6 y^{21} - \frac{429}{32}\, b_6 b_4{}^5 x^6 y^{21} + \frac{14245}{16384}\, b_6{}^3 b_2{}^4 x^6 y^{21} - \frac{789}{262144}\, b_2{}^8 b_4 b_6 x^5 y^{22} + \frac{41}{32768}\, b_2{}^7 b_4{}^3 x^5 y^{22} - \frac{105}{128}\, b_2{}^3 b_4{}^5 x^5 y^{22} + \frac{681}{65536}\, b_2{}^7 b_6{}^2 x^5 y^{22} + \frac{1659}{128}\, b_4 b_6{}^3 b_2{}^2 x^5 y^{22} - \frac{453}{32}\, b_6 b_4{}^5 x^5 y^{22} + \frac{22911}{16384}\, b_6{}^3 b_2{}^4 x^5 y^{22} - \frac{111}{4194304}\, b_2{}^{10} b_6 x^5 y^{22} - \frac{35}{8}\, b_2 b_4{}^6 x^5 y^{22} - \frac{231}{512}\, b_2{}^4 b_6 b_4{}^3 x^5 y^{22} + \frac{2403}{1024}\, b_2 b_6{}^4 x^5 y^{22} + \frac{4599}{512}\, b_6{}^2 b_4{}^2 b_2{}^3 x^5 y^{22} - \frac{13}{524288}\, b_2{}^9 b_4{}^2 x^5 y^{22} - \frac{2961}{65536}\, b_2{}^6 b_6 b_4{}^2 x^5 y^{22} + \frac{14805}{16384}\, b_6{}^2 b_4 b_2{}^5 x^5 y^{22} + \frac{327}{256}\, b_4{}^2 b_6{}^3 x^5 y^{22} - \frac{183}{64}\, b_4{}^3 b_6{}^2 b_2 x^5 y^{22} + \frac{189}{8192}\, b_4{}^4 b_2{}^5 x^5 y^{22} - \frac{1}{4194304}\, b_2{}^{11} b_4 x^5 y^{22} - \frac{2625}{256}\, b_6 b_4{}^4 b_2{}^2 x^5 y^{22} + \frac{85}{16}\, b_6 b_4{}^5 x^4 y^{23} + \frac{21}{1024}\, b_2{}^4 b_6 b_4{}^3 x^4 y^{23} + \frac{231}{256}\, b_6{}^3 b_2{}^4 x^4 y^{23} + \frac{291}{8}\, b_4{}^3 b_6{}^2 b_2 x^4 y^{23} - \frac{21}{1048576}\, b_6{}^{10} b_6 x^4 y^{23} + \frac{1107}{256}\, b_2 b_6{}^4 x^4 y^{23} - \frac{51}{32768}\, b_2{}^7 b_6{}^2 x^4 y^{23} + \frac{2597}{256}\, b_6{}^2 b_4{}^2 b_2{}^3 x^4 y^{23} + \frac{21}{64}\, b_6{}^2 b_4 b_2{}^5 x^4 y^{23} + \frac{749}{128}\, b_6 b_4{}^4 b_2{}^2 x^4 y^{23} + \frac{1425}{64}\, b_4{}^2 b_6{}^3 x^4 y^{23} + \frac{2217}{128}\, b_4 b_6{}^3 b_2{}^2 x^4 y^{23} - \frac{91}{1024}\, b_2{}^6 b_6 b_4{}^2 x^4 y^{23} - \frac{419}{131072}\, b_2{}^8 b_4 b_6 x^4 y^{23} + \frac{267}{64}\, b_4 b_6{}^3 b_2{}^2 x^3 y^{24} - \frac{21}{256}\, b_2{}^4 b_6 b_4{}^3 x^3 y^{24} + \frac{147}{2048}\, b_4{}^4 b_2{}^5 x^3 y^{24} - \frac{1}{4194304}\, b_2{}^{11} b_4 x^3 y^{24} + \frac{483}{256}\, b_6{}^2 b_4{}^2 b_2{}^3 x^3 y^{24} + \frac{21}{2048}\, b_6{}^3 b_2{}^4 x^3 y^{24} + \frac{141}{16}\, b_6 b_4{}^5 x^3 y^{24} - \frac{453}{131072}\, b_2{}^8 b_4 b_6 x^3 y^{24} - \frac{141}{16384}\, b_2{}^7 b_6{}^2 x^3 y^{24} - \frac{2079}{8192}\, b_6{}^2 b_4 b_2{}^5 x^3 y^{24} + \frac{63}{16}\, b_2 b_4{}^6 x^3 y^{24} - \frac{1}{16384}\, b_2{}^9 b_4{}^2 x^3 y^{24} - \frac{19}{1048576}\, b_2{}^{10} b_6 x^3 y^{24} + \frac{777}{512}\, b_2{}^3 b_4{}^5 x^3 y^{24} + \frac{147}{128}\, b_2 b_6{}^4 x^3 y^{24} - \frac{1869}{16384}\, b_2{}^6 b_6 b_4{}^2 x^3 y^{24} + \frac{1185}{64}\, b_4{}^3 b_6{}^2 b_2 x^3 y^{24} - \frac{27}{16384}\, b_2{}^7 b_4{}^3 x^3 y^{24} + \frac{1119}{128}\, b_4{}^2 b_6{}^3 x^3 y^{24} + \frac{273}{32}\, b_6 b_4{}^4 b_2{}^2 x^3 y^{24} - \frac{1755}{256}\, b_4{}^2 b_6{}^3 x^2 y^{25} - \frac{39}{4194304}\, b_2{}^{10} b_6 x^2 y^{25} - \frac{4095}{32768}\, b_2{}^6 b_6 b_4{}^2 x^2 y^{25} - \frac{2457}{4096}\, b_6{}^2 b_4 b_2{}^5 x^2 y^{25} - \frac{4095}{512}\, b_6{}^2 b_4{}^2 b_2{}^3 x^2 y^{25} - \frac{585}{32}\, b_4{}^3 b_6{}^2 b_2 x^2 y^{25} - \frac{585}{512}\, b_2 b_6{}^4 x^2 y^{25} - \frac{117}{32}\, b_6 b_4{}^5 x^2 y^{25} - \frac{585}{65536}\, b_2{}^7 b_6{}^2 x^2 y^{25} - \frac{4095}{8192}\, b_6{}^3 b_2{}^4 x^2 y^{25} - \frac{4095}{512}\, b_6 b_4{}^4 b_2{}^2 x^2 y^{25} - \frac{4095}{2048}\, b_2{}^4 b_6 b_4{}^3 x^2 y^{25} - \frac{585}{262144}\, b_2{}^8 b_4 b_6 x^2 y^{25} - \frac{1755}{256}\, b_4 b_6{}^3 b_2{}^2 x^2 y^{25} - \frac{1155}{512}\, b_2{}^3 b_4{}^5 (x) y^{26} - \frac{1}{4194304}\, b_2{}^{11} b_4 (x) y^{26} - \frac{33}{4194304}\, b_2{}^{10} b_6 (x) y^{26} - \frac{8085}{512}\, b_6 b_4{}^4 b_2{}^2 (x) y^{26} - \frac{1155}{128}\, b_6{}^2 b_4{}^2 b_2{}^3 (x) y^{26} - \frac{165}{16384}\, b_2{}^7 b_4{}^3 (x) y^{26} - \frac{1485}{64}\, b_4{}^3 b_6{}^2 b_2 (x) y^{26} - \frac{33}{4}\, b_6 b_4{}^5 (x) y^{26} - \frac{231}{64}\, b_2 b_4{}^6 (x) y^{26} - \frac{165}{65536}\, b_2{}^8 b_4 b_6 (x) y^{26} - \frac{1155}{4096}\, b_4{}^4 b_2{}^5 (x) y^{26} - \frac{55}{524288}\, b_2{}^9 b_4{}^2 (x) y^{26} - \frac{3465}{8192}\, b_6{}^3 b_2{}^4 (x) y^{26} - \frac{495}{512}\, b_2 b_6{}^4 (x) y^{26} - \frac{5775}{32768}\, b_2{}^6 b_6 b_4{}^2 (x) y^{26} - \frac{4851}{8192}\, b_6{}^2 b_4 b_2{}^5 (x) y^{26} - \frac{3465}{1024}\, b_2{}^4 b_6 b_4{}^3 (x) y^{26} - \frac{825}{128}\, b_4 b_6{}^3 b_2{}^2 (x) y^{26} - \frac{495}{65536}\, b_2{}^7 b_6{}^2 (x) y^{26} - \frac{1815}{256}\, b_4{}^2 b_6{}^3 (x) y^{26}$

Some values of the n-series for $F_C(x,y)$ over $\mathbb{Z}[\frac{1}{2}, b_2, b_4, b_6]$ are:

$[2]_C(x) = 2\,x - 1/2\, b_2 x^3 + (1/8\, b_2{}^2 - 6\, b_4) x^5 + (-1/32\, b_2{}^3 + 1/2\, b_4 b_2 - \frac{27}{2}\, b_6) x^7 + (\frac{1}{128}\, b_2{}^4 - 3/4\, b_4 b_2{}^2 + 11\, b_4{}^2 - 5\, b_6 b_2) x^9 + (1/16\, b_4 b_2{}^3 - \frac{1}{512}\, b_2{}^5 - \frac{55}{16}\, b_6 b_2{}^2 - 7/4\, b_4{}^2 b_2 + 39\, b_6 b_4) x^{11} + (11/2\, b_2 b_6 b_4 - \frac{9}{128}\, b_4 b_2{}^4 + \frac{459}{8}\, b_6{}^2 - 23\, b_4{}^3 - \frac{19}{16}\, b_6 b_2{}^3 + \frac{29}{16}\, b_4{}^2 b_2{}^2 + \frac{1}{2048}\, b_2{}^6) x^{13} + (-\frac{1017}{8}\, b_4{}^2 b_6 + \frac{1527}{32}\, b_2 b_6{}^2 - \frac{25}{64}\, b_4{}^2 b_2{}^3 + \frac{3}{512}\, b_4 b_2{}^5 - \frac{1}{8192}\, b_2{}^7 - \frac{281}{512}\, b_6 b_2{}^4 + 9/4\, b_4{}^3 b_2 + \frac{103}{16}\, b_4 b_2{}^2 b_6) x^{15} + (-\frac{495}{2}\, b_4 b_6{}^2 + \frac{1}{32768}\, b_2{}^8 - 6\, b_4{}^3 b_2{}^2 - \frac{309}{8}\, b_6 b_2 b_4{}^2 - 1/8\, b_4 b_2{}^3 b_6 + \frac{25}{128}\, b_2{}^4 b_4{}^2 - \frac{23}{128}\, b_2{}^5 b_6 + \frac{1245}{32}\, b_6{}^2 b_2{}^2 + \frac{179}{4}\, b_4{}^4 - \frac{3}{512}\, b_2{}^6 b_4) x^{17} + (-\frac{1}{131072}\, b_2{}^9 - \frac{2025}{8}\, b_6{}^3 + \frac{617}{2}\, b_4{}^3 b_6 - \frac{1583}{32}\, b_4{}^2 b_6 b_2{}^2 + \frac{17}{128}\, b_4 b_6 b_2{}^4 - \frac{107}{16}\, b_4{}^4 b_2 + \frac{2945}{128}\, b_6{}^2 b_2{}^3 - 145\, b_6{}^2 b_2 b_4 + \frac{1}{2048}\, b_2{}^7 b_4 - \frac{29}{512}\, b_2{}^5 b_4{}^2 + 3/8\, b_2{}^3 b_4{}^3 - \frac{143}{2048}\, b_2{}^6 b_6) x^{19} + (\frac{7647}{8}\, b_4{}^2 b_6{}^2 - \frac{1783}{16}\, b_4 b_6 b_2{}^2 - \frac{2395}{128}\, b_4{}^2 b_6 b_2{}^3 - \frac{89}{256}\, b_2{}^5 b_6 b_4 + \frac{807}{64}\, b_2{}^2 b_4{}^4 - \frac{133}{128}\, b_2{}^4 b_4{}^3 - \frac{45}{2048}\, b_2{}^7 b_6 + \frac{13259}{1024}\, b_6{}^2 b_2{}^4 - \frac{10623}{32}\, b_2 b_6{}^3 + \frac{93}{2}\, b_6 b_2 b_4{}^3 - \frac{365}{4}\, b_4{}^5 - \frac{15}{32768}\, b_2{}^8 b_4 + \frac{1}{524288}\, b_2{}^{10} + \frac{35}{2048}\, b_2{}^6 b_4{}^2) x^{21} + (-\frac{43359}{128}\, b_6{}^3 b_2{}^2 + \frac{11115}{8}\, b_6{}^3 b_4 - \frac{1}{2097152}\, b_2{}^{11} - \frac{12875}{16}\, b_6 b_4{}^4 - \frac{5471}{128}\, b_4 b_6{}^2 b_2{}^3 - \frac{14109}{1024}\, b_4{}^2 b_6 b_2{}^4 + \frac{2687}{32}\, b_6 b_4{}^3 b_2{}^2 - \frac{55}{8192}\, b_2{}^7 b_4{}^2 - \frac{1015}{131072}\, b_2{}^8 b_6 + \frac{20007}{32}\, b_6{}^2 b_2 b_4{}^2 + \frac{26199}{4096}\, b_2{}^5 b_6{}^2 - \frac{719}{256}\, b_2{}^3 b_4{}^4 + \frac{151}{16}\, b_2 b_4{}^5 + \frac{7}{512}\, b_2{}^5 b_4{}^3 - \frac{283}{2048}\, b_2{}^6 b_6 b_4 + \frac{5}{131072}\, b_2{}^9 b_4) x^{23} + (\frac{141831}{128}\, b_6{}^4 + \frac{5649}{4}\, b_2 b_6{}^3 b_4 - \frac{9}{262144}\, b_2{}^{10} b_4 + \frac{1}{8388608}\, b_2{}^{12} - \frac{51}{8}\, b_6 b_4{}^3 b_2{}^3 - \frac{903}{4}\, b_6 b_4{}^4 b_2 - \frac{67929}{256}\, b_6{}^3 b_2{}^3 - \frac{11889}{4}\, b_6{}^2 b_4{}^3 - \frac{8511}{512}\, b_4 b_6{}^2 b_2{}^4 + \frac{40023}{64}\, b_6{}^2 b_4{}^2 b_2{}^2 + \frac{85}{65536}\, b_2{}^8 b_4{}^2 - \frac{77}{512}\, b_2{}^6 b_4{}^3 - \frac{155}{65536}\, b_2{}^9 b_6 + \frac{24805}{8192}\, b_2{}^6 b_6{}^2 -$

$$\frac{1147}{32}\,b_2{}^2b_4{}^5+\frac{1885}{1024}\,b_2{}^4b_4{}^4-\frac{11719}{2048}\,b_2{}^5b_6b_4{}^2-\frac{197}{2048}\,b_4b_2{}^7b_6+\frac{1439}{8}\,b_4{}^6)x^{25}+(\frac{14717}{8}\,b_6b_4{}^5+\frac{217}{128}\,b_2{}^3b_4{}^5-\frac{835}{32}\,b_2b_4{}^6-\frac{677}{512}\,b_2{}^4b_6b_4{}^3-\frac{1515}{1024}\,b_6{}^2b_4b_2{}^5-\frac{54309}{128}\,b_6b_4{}^4b_2{}^2+\frac{43721}{32768}\,b_2{}^7b_6{}^2-\frac{26291}{8192}\,b_2{}^6b_6b_4{}^2-\frac{410215}{64}\,b_4{}^2b_6{}^3-\frac{27521}{16}\,b_4{}^3b_6{}^2b_2+\frac{1012973}{512}\,b_2b_6{}^4-\frac{1}{33554432}\,b_2{}^{13}+\frac{93859}{256}\,b_6{}^2b_4{}^2b_2{}^3-\frac{375855}{2048}\,b_6{}^3b_2{}^4+\frac{80953}{64}\,b_4b_6{}^3b_2{}^2+\frac{3}{1048576}\,b_2{}^{11}b_4-\frac{185}{262144}\,b_2{}^9b_4{}^2-\frac{3141}{4096}\,b_4{}^4b_2{}^5-\frac{3}{512}\,b_2{}^7b_4{}^3-\frac{821}{1048576}\,b_2{}^{10}b_6-\frac{2431}{65536}\,b_2{}^8b_4b_6)x^{27}+O(x^{29})$$

$$[3]_C(x)=3\,x-2\,b_2x^3+(-48\,b_4+3/2\,b_2{}^2)x^5+(36\,b_4b_2-\frac{9}{8}\,b_2{}^3-234\,b_6)x^7+(-46\,b_4b_2{}^2+\frac{27}{32}\,b_2{}^4-20\,b_6b_2+608\,b_4{}^2)x^9+(\frac{81}{2}\,b_4b_2{}^3-\frac{81}{128}\,b_2{}^5-648\,b_4{}^2b_2-\frac{747}{4}\,b_6b_2{}^2+4938\,b_6b_4)x^{11}+(-2061\,b_2b_6b_4-\frac{609}{16}\,b_4b_2{}^4+\frac{25929}{2}\,b_6{}^2-7872\,b_4{}^3+\frac{87}{2}\,b_6b_2{}^3+978\,b_4{}^2b_2{}^2+\frac{243}{512}\,b_2{}^6)x^{13}+(-\frac{188049}{2}\,b_4{}^2b_6+\frac{59487}{8}\,b_2b_6{}^2-\frac{2059}{2}\,b_4{}^2b_2{}^3+\frac{2123}{64}\,b_4b_2{}^5-\frac{729}{2048}\,b_2{}^7-\frac{13787}{128}\,b_6b_2{}^4+10640\,b_4{}^3b_2+\frac{47577}{8}\,b_4b_2{}^2b_6)x^{15}+(-412002\,b_4b_6{}^2+\frac{2187}{8192}\,b_2{}^8-18288\,b_4{}^3b_2{}^2+\frac{128151}{2}\,b_6b_2b_4{}^2-\frac{16809}{4}\,b_4b_2{}^3b_6+\frac{4473}{4}\,b_2{}^4b_4{}^2+\frac{1911}{32}\,b_2{}^5b_6+\frac{155619}{8}\,b_6{}^2b_2{}^2+101760\,b_4{}^4-\frac{1839}{64}\,b_2{}^6b_4)x^{17}+(-\frac{6561}{32768}\,b_2{}^9-\frac{1458225}{2}\,b_6{}^3+\frac{3164319}{2}\,b_4{}^3b_6-166143\,b_4{}^2b_6b_2{}^2+\frac{356187}{64}\,b_4b_6b_2{}^4-166944\,b_4{}^4b_2+\frac{187905}{32}\,b_6{}^2b_2{}^3-20250\,b_6{}^2b_2b_4+\frac{6225}{256}\,b_2{}^7b_4-\frac{17667}{16}\,b_2{}^5b_4{}^2+22212\,b_2{}^3b_4{}^3-\frac{33759}{512}\,b_2{}^6b_6)x^{19}+(\frac{40019013}{4}\,b_4{}^2b_6{}^2-\frac{5326389}{8}\,b_4b_6{}^2b_2{}^2+\frac{4734727}{32}\,b_4{}^2b_6b_2{}^3-\frac{610801}{128}\,b_2{}^5b_6b_4+317816\,b_2{}^2b_4{}^4-\frac{54015}{2}\,b_2{}^4b_4{}^3+\frac{6261}{128}\,b_2{}^7b_6+\frac{3864857}{256}\,b_6{}^2b_2{}^4-\frac{6252123}{8}\,b_2b_6{}^3-\frac{6325245}{4}\,b_6b_2b_4{}^3-1315584\,b_4{}^5-\frac{83359}{4096}\,b_2{}^8b_4+\frac{19683}{131072}\,b_2{}^{10}+\frac{68559}{64}\,b_2{}^6b_4{}^2)x^{21}+(-\frac{28491759}{16}\,b_6{}^3b_2{}^2+\frac{2453239899}{8}\,b_6{}^3b_4-\frac{59049}{524288}\,b_2{}^{11}-\frac{101179413}{4}\,b_6b_4{}^4+\frac{336285}{2}\,b_4b_6{}^2b_2{}^3-\frac{52982715}{256}\,b_4{}^2b_6b_2{}^4+\frac{120570897}{32}\,b_6b_4{}^3b_2{}^2-\frac{256461}{256}\,b_2{}^7b_4{}^2-\frac{1413873}{32768}\,b_2{}^8b_6-\frac{43270389}{16}\,b_6{}^2b_2b_4{}^2+\frac{483303}{1024}\,b_2{}^5b_6{}^2-435354\,b_2{}^3b_4{}^4+2538048\,b_2b_4{}^5+\frac{237069}{8}\,b_2{}^5b_4{}^3+\frac{4972755}{1024}\,b_2{}^6b_6b_4+\frac{275853}{16384}\,b_2{}^9b_4)x^{23}+(\frac{1311213069}{32}\,b_6{}^4+\frac{129710457}{8}\,b_2b_6{}^3b_4-\frac{452565}{32768}\,b_2{}^{10}b_4+\frac{177147}{2097152}\,b_2{}^{12}-\frac{134636247}{32}\,b_6b_4{}^3b_2{}^3+32664249\,b_6b_4{}^4b_2-\frac{82464831}{64}\,b_6{}^3b_2{}^3-206640747\,b_6{}^2b_4{}^3-\frac{84880359}{128}\,b_4b_6{}^2b_2{}^4+\frac{659054853}{32}\,b_6{}^2b_4{}^2b_2{}^2+\frac{1882269}{2048}\,b_2{}^8b_4{}^2-\frac{505179}{16}\,b_2{}^6b_4{}^3+\frac{564705}{16384}\,b_2{}^9b_6+\frac{18891963}{2048}\,b_2{}^6b_6{}^2-5270688\,b_2{}^2b_4{}^5+\frac{1162629}{2}\,b_2{}^4b_4{}^4+\frac{102975633}{512}\,b_2{}^5b_6b_4{}^2-\frac{4436397}{1024}\,b_4b_2{}^7b_6+17008128\,b_4{}^6)x^{25}+(\frac{1556646149}{4}\,b_6b_4{}^5+8003480\,b_2{}^3b_4{}^5-37722240\,b_2b_4{}^6+\frac{3058798405}{512}\,b_2{}^4b_6b_4{}^3+\frac{47176549}{128}\,b_6{}^2b_4b_2{}^5-\frac{2504512893}{32}\,b_6b_4{}^4b_2{}^2-\frac{21341231}{8192}\,b_2{}^7b_6{}^2-\frac{227385799}{1024}\,b_2{}^6b_6b_4{}^2-\frac{14482934563}{16}\,b_4{}^2b_6{}^3+\frac{495533057}{4}\,b_4{}^3b_6{}^2b_2+\frac{8232581021}{128}\,b_2b_6{}^4-\frac{531441}{8388608}\,b_2{}^{13}-\frac{1440065937}{128}\,b_6{}^2b_4{}^2b_2{}^3-\frac{1019630545}{512}\,b_6{}^3b_2{}^4+\frac{4453416173}{64}\,b_4b_6{}^3b_2{}^2+\frac{1473907}{131072}\,b_2{}^{11}b_4-\frac{6771551}{8192}\,b_2{}^9b_4{}^2-\frac{5587871}{8}\,b_4{}^4b_2{}^5+\frac{2059221}{64}\,b_2{}^7b_4{}^3-\frac{7466201}{262144}\,b_2{}^{10}b_6+\frac{130952067}{32768}\,b_2{}^8b_4b_6)x^{27}+O(x^{29})$$

$$[4]_C(x)=4\,x-5\,b_2x^3+(\frac{29}{4}\,b_2{}^2-204\,b_4)x^5+(-\frac{169}{16}\,b_2{}^3+341\,b_4b_2-1755\,b_6)x^7+(\frac{985}{64}\,b_2{}^4-\frac{1517}{2}\,b_4b_2{}^2+535\,b_6b_2+8534\,b_4{}^2)x^9+(-\frac{5741}{256}\,b_2{}^5+\frac{10967}{8}\,b_4b_2{}^3-\frac{35651}{8}\,b_6b_2{}^2-\frac{41795}{2}\,b_4{}^2b_2+122718\,b_6b_4)x^{11}+(-170741\,b_2b_6b_4-\frac{156229}{64}\,b_4b_2{}^4+\frac{2207115}{4}\,b_6{}^2-363086\,b_4{}^3+\frac{79879}{16}\,b_6b_2{}^3+\frac{448017}{8}\,b_4{}^2b_2{}^2+\frac{33461}{1024}\,b_2{}^6)x^{13}+(-\frac{30533625}{4}\,b_4{}^2b_6+\frac{1577415}{16}\,b_2b_6{}^2-\frac{3877113}{32}\,b_4{}^2b_2{}^3+\frac{1069755}{256}\,b_4b_2{}^5-\frac{195025}{4096}\,b_2{}^7-\frac{2753145}{256}\,b_6b_2{}^4+\frac{2316637}{2}\,b_4{}^3b_2+\frac{4569095}{8}\,b_4b_2{}^2b_6)x^{15}+(-58522491\,b_4b_6{}^2+\frac{1136689}{16384}\,b_2{}^8-\frac{7182633}{2}\,b_4{}^3b_2{}^2+\frac{32339787}{2}\,b_6b_2b_4{}^2-\frac{4214141}{4}\,b_4b_2{}^3b_6+\frac{16016281}{64}\,b_2{}^4b_4{}^2+\frac{2146585}{128}\,b_2{}^5b_6+\frac{36208329}{16}\,b_6{}^2b_2{}^2+\frac{30887155}{2}\,b_4{}^4-\frac{1793201}{256}\,b_2{}^6b_4)x^{17}+(-\frac{6625109}{65536}\,b_2{}^9-\frac{703820745}{4}\,b_6{}^3+423046885\,b_4{}^3b_6-\frac{888448605}{16}\,b_4{}^2b_6b_2{}^2+\frac{142224825}{64}\,b_4b_6b_2{}^4-\frac{485803607}{8}\,b_4{}^4b_2-\frac{81314695}{64}\,b_6{}^2b_2{}^3+\frac{217290275}{4}\,b_6{}^2b_2b_4+\frac{11814283}{1024}\,b_2{}^7b_4-\frac{124708481}{256}\,b_2{}^5b_4{}^2+\frac{71876047}{8}\,b_2{}^3b_4{}^3-\frac{29175275}{1024}\,b_2{}^6b_6)x^{19}+(\frac{18682455567}{4}\,b_4{}^2b_6{}^2-\frac{5244186463}{16}\,b_4b_6{}^2b_2{}^2+\frac{3957274121}{32}\,b_4{}^2b_6b_2{}^3-\frac{531349073}{128}\,b_2{}^5b_6b_4+\frac{6806355259}{32}\,b_2{}^2b_4{}^4-\frac{1338715839}{64}\,b_2{}^4b_4{}^3+\frac{94315341}{2048}\,b_2{}^7b_6+\frac{3168055883}{512}\,b_6{}^2b_2{}^4-\frac{955656525}{8}\,b_2b_6{}^3-\frac{2454779653}{2}\,b_6b_2b_4{}^3-\frac{1313732349}{2}\,b_4{}^5-\frac{307226791}{16384}\,b_2{}^8b_4+\frac{38613965}{262144}\,b_2{}^{10}+\frac{937184159}{1024}\,b_2{}^6b_4{}^2)x^{21}+(-\frac{66186937371}{64}\,b_6{}^3b_2{}^2+\frac{99259139619}{4}\,b_6{}^3b_4-\frac{225058681}{1048576}\,b_2{}^{11}-\frac{177817819531}{8}\,b_6b_4{}^4+\frac{33562817927}{64}\,b_4b_6{}^2b_2{}^3-\frac{147311302021}{512}\,b_4{}^2b_6b_2{}^4+\frac{70736418943}{16}\,b_6b_4{}^3b_2{}^2-\frac{6837869911}{4096}\,b_2{}^7b_4{}^2-\frac{4877374615}{65536}\,b_2{}^8b_6-\frac{129933701505}{16}\,b_6{}^2b_2b_4{}^2-\frac{16145875521}{2048}\,b_2{}^5b_6{}^2-\frac{76879028375}{128}\,b_2{}^3b_4{}^4+\frac{24562026851}{8}\,b_2b_4{}^5+\frac{11609917469}{256}\,b_2{}^5b_4{}^3+\frac{7907355253}{1024}\,b_2{}^6b_6b_4+\frac{1975916977}{65536}\,b_2{}^9b_4)x^{23}+(\frac{3589126808391}{64}\,b_6{}^4-\frac{44593525821}{4}\,b_2b_6{}^3b_4-\frac{6298174367}{131072}\,b_2{}^{10}b_4+\frac{1311738121}{4194304}\,b_2{}^{12}-\frac{183848571203}{16}\,b_6b_4{}^3b_2{}^3+\frac{649814540925}{8}\,b_6b_4{}^4b_2+\frac{1301786637}{64}\,b_6{}^3b_2{}^3-\frac{635670719289}{2}\,b_6{}^2b_4{}^3-\frac{357691747557}{256}\,b_4b_6{}^2b_2{}^4+\frac{1196522590851}{32}\,b_6{}^2b_4{}^2b_2{}^2+\frac{97531683029}{32768}\,b_2{}^8b_4{}^2-$$

$$\frac{48047404649}{512}\,b_2{}^6b_4{}^3+\frac{7783393249}{65536}\,b_2{}^9b_6+\frac{71639284129}{4096}\,b_2{}^6b_6{}^2-\frac{191330876145}{16}\,b_2{}^2b_4{}^5+\frac{792635372501}{512}\,b_2{}^4b_4{}^4+\frac{307904576601}{512}\,b_2{}^5b_6b_4{}^2-\frac{14195398217}{1024}\,b_4b_2{}^7b_6+\frac{111754945279}{4}\,b_4{}^6)x^{25}+(\frac{4499574271749}{4}\,b_6b_4{}^5+\frac{2398013271323}{64}\,b_2{}^3b_4{}^5-\frac{2421098946607}{16}\,b_2b_4{}^6+\frac{7451624678991}{256}\,b_2{}^4b_6b_4{}^3+\frac{2702316703165}{1024}\,b_6{}^2b_4b_2{}^5-\frac{20166638707425}{64}\,b_6b_4{}^4b_2{}^2-\frac{466756710663}{16384}\,b_2{}^7b_6{}^2-\frac{5024642724217}{4096}\,b_2{}^6b_6b_4{}^2-\frac{77374208029799}{32}\,b_4{}^2b_6{}^3+\frac{6470136102609}{8}\,b_4{}^3b_6{}^2b_2+\frac{16919006068969}{256}\,b_2b_6{}^4-\frac{7645370045}{16777216}\,b_2{}^{13}-\frac{10217218174977}{128}\,b_6{}^2b_4{}^2b_2{}^3-\frac{3422364321195}{1024}\,b_6{}^3b_2{}^4+\frac{5395802007657}{32}\,b_4b_6{}^3b_2{}^2+\frac{39855369085}{524288}\,b_2{}^{11}b_4-\frac{682682415485}{131072}\,b_2{}^9b_4{}^2-\frac{7543880700961}{2048}\,b_4{}^4b_2{}^5+\frac{382766986775}{2048}\,b_2{}^7b_4{}^3-\frac{98698213529}{524288}\,b_2{}^{10}b_6+\frac{801675205145}{32768}\,b_2{}^8b_4b_6)x^{27}+O(x^{29})$$

$$[5]_C(x)=5\,x-10\,b_2x^3+(\frac{47}{2}\,b_2{}^2-624\,b_4)x^5+(-\frac{445}{8}\,b_2{}^3+1780\,b_4b_2-8370\,b_6)x^7+(\frac{4215}{32}\,b_2{}^4-6230\,b_4b_2{}^2+6740\,b_6b_2+64480\,b_4{}^2)x^9+(\frac{37045}{2}\,b_4b_2{}^3-\frac{39925}{128}\,b_2{}^5-\frac{215975}{4}\,b_6b_2{}^2-273320\,b_4{}^2b_2+1446450\,b_6b_4)x^{11}+(-3856225\,b_2b_6b_4-\frac{854445}{16}\,b_4b_2{}^4+\frac{20108925}{2}\,b_6{}^2-6769600\,b_4{}^3+118025\,b_6b_2{}^3+1164090\,b_4{}^2b_2{}^2+\frac{378175}{512}\,b_2{}^6)x^{13}+(-\frac{443329605}{2}\,b_4{}^2b_6-\frac{26563605}{8}\,b_2b_6{}^2-\frac{8295303}{2}\,b_4{}^2b_2{}^3+\frac{9518791}{64}\,b_4b_2{}^5-\frac{3582125}{2048}\,b_2{}^7-\frac{47074455}{128}\,b_6b_2{}^4+37738192\,b_4{}^3b_2+\frac{147867565}{8}\,b_4b_2{}^2b_6)x^{15}+(-2641285890\,b_4b_6{}^2+\frac{33930375}{8192}\,b_2{}^8-187788720\,b_4{}^3b_2{}^2+\frac{1768029735}{2}\,b_6b_2b_4{}^2-\frac{236793085}{4}\,b_4b_2{}^3b_6+\frac{55583805}{4}\,b_2{}^4b_4{}^2+\frac{31277525}{32}\,b_2{}^5b_6+\frac{803669775}{8}\,b_6{}^2b_2{}^2+710704000\,b_4{}^4-\frac{25925795}{64}\,b_2{}^6b_4)x^{17}+(-\frac{321393125}{32768}\,b_2{}^9-\frac{24497403885}{2}\,b_6{}^3+\frac{60647273755}{2}\,b_4{}^3b_6-4554386160\,b_4{}^2b_6b_2{}^2+\frac{12608754695}{64}\,b_4b_6b_2{}^4-4910863520\,b_4{}^4b_2-\frac{5384412475}{32}\,b_6{}^2b_2{}^3+5851592230\,b_6{}^2b_2b_4+\frac{277618965}{256}\,b_2{}^7b_4-\frac{705118415}{16}\,b_2{}^5b_4{}^2+774618580\,b_2{}^3b_4{}^3-\frac{1355640075}{512}\,b_2{}^6b_6)x^{19}+(\frac{2080659226425}{4}\,b_4{}^2b_6{}^2-\frac{321981655525}{8}\,b_4b_6{}^2b_2{}^2+\frac{554978140975}{32}\,b_4{}^2b_6b_2{}^3-\frac{77723612725}{128}\,b_2{}^5b_6b_4+27867155800\,b_2{}^2b_4{}^4-\frac{5868378275}{2}\,b_2{}^4b_4{}^3+\frac{1792610175}{256}\,b_2{}^7b_6+\frac{199992466925}{256}\,b_6{}^2b_2{}^4-\frac{16713757275}{8}\,b_2b_6{}^3-\frac{653106654625}{4}\,b_6b_2b_4{}^3-74610988800\,b_4{}^5-\frac{11732873875}{4096}\,b_2{}^8b_4+\frac{3044279375}{131072}\,b_2{}^{10}+\frac{8616702875}{64}\,b_6{}^2b_4{}^2)x^{21}+(-\frac{2681889996075}{16}\,b_6{}^3b_2{}^2+\frac{34272684415575}{8}\,b_6{}^3b_4-\frac{28835828125}{524288}\,b_2{}^{11}-\frac{15725191466425}{4}\,b_6b_4{}^4+\frac{252857236325}{2}\,b_4b_6{}^2b_2{}^3-\frac{16509802097975}{256}\,b_4{}^2b_6b_2{}^4+\frac{29281113497125}{32}\,b_6b_4{}^3b_2{}^2-\frac{102257723025}{256}\,b_2{}^7b_4{}^2-\frac{601360505925}{32768}\,b_2{}^8b_6-\frac{30478769912025}{16}\,b_6{}^2b_2b_4{}^2-\frac{2090117592525}{1024}\,b_2{}^5b_6{}^2-129946364450\,b_2{}^3b_4{}^4+615187822400\,b_2b_4{}^5+\frac{83037481425}{8}\,b_2{}^5b_4{}^3+\frac{1871987474575}{1024}\,b_2{}^6b_6b_4+\frac{122637183825}{16384}\,b_2{}^9b_4)x^{23}+(\frac{477257452119153}{32}\,b_6{}^4-\frac{59746497824163}{8}\,b_2b_6{}^3b_4-\frac{635291502417}{32768}\,b_2{}^{10}b_4+\frac{273136884375}{2097152}\,b_2{}^{12}-\frac{128404651319891}{32}\,b_6b_4{}^3b_2{}^3+26492104933284\,b_6b_4{}^4b_2+\frac{12168020354889}{64}\,b_6{}^3b_2{}^3-87391059227847\,b_6{}^2b_4{}^3-\frac{62469162908247}{128}\,b_4b_6{}^2b_2{}^4+\frac{379858525781481}{32}\,b_6{}^2b_4{}^2b_2{}^2+\frac{2371690035281}{2048}\,b_2{}^8b_4{}^2-\frac{559559317679}{16}\,b_2{}^6b_4{}^3+\frac{780360194823}{16384}\,b_2{}^9b_6+\frac{13119878729191}{2048}\,b_2{}^6b_6{}^2-3914489147424\,b_2{}^2b_4{}^5+\frac{1093350480329}{2}\,b_2{}^4b_4{}^4+\frac{113608632839121}{512}\,b_2{}^5b_6b_4{}^2-\frac{5477819319729}{1024}\,b_4b_2{}^7b_6+7832805006848\,b_4{}^6)x^{25}+(\frac{1964099816736825}{4}\,b_6b_4{}^5+20291013643000\,b_2{}^3b_4{}^5-75043564636800\,b_2b_4{}^6+\frac{8419640500794425}{512}\,b_2{}^4b_6b_4{}^3+\frac{204156498061445}{128}\,b_6{}^2b_4b_2{}^5-\frac{5228397990650625}{32}\,b_6b_4{}^4b_2{}^2-\frac{148227316726475}{8192}\,b_2{}^7b_6{}^2-\frac{752411664705575}{1024}\,b_2{}^6b_6b_4{}^2-\frac{16500992065608575}{16}\,b_4{}^2b_6{}^3+\frac{17810007488857651}{4}\,b_4{}^3b_6{}^2b_2+\frac{1279870272466225}{128}\,b_2b_6{}^4-\frac{2587189703125}{8388608}\,b_2{}^{13}-\frac{5925544269723765}{128}\,b_6{}^2b_4{}^2b_2{}^3-\frac{762884338388125}{512}\,b_6{}^3b_2{}^4+\frac{4922811935844225}{64}\,b_4b_6{}^3b_2{}^2+\frac{6533547358175}{131072}\,b_2{}^{11}b_4-\frac{26992065794875}{8192}\,b_2{}^9b_4{}^2-\frac{17006118746875}{8}\,b_4{}^4b_2{}^5+\frac{7257950991625}{64}\,b_2{}^7b_4{}^3-\frac{32158935070125}{262144}\,b_2{}^{10}b_6+\frac{502801351950575}{32768}\,b_2{}^8b_4b_6)x^{27}+O(x^{29})$$

$$[6]_C(x)=6\,x-\frac{35}{2}\,b_2x^3+(\frac{483}{8}\,b_2{}^2-1554\,b_4)x^5+(-\frac{6723}{32}\,b_2{}^3+\frac{13347}{2}\,b_4b_2-\frac{59985}{2}\,b_6)x^7+(\frac{93635}{128}\,b_2{}^4-\frac{135449}{4}\,b_4b_2{}^2+42485\,b_6b_2+334369\,b_4{}^2)x^9+(\frac{2379123}{16}\,b_4b_2{}^3-\frac{1304163}{512}\,b_2{}^5-\frac{6616197}{16}\,b_6b_2{}^2-\frac{8599797}{4}\,b_4{}^2b_2+10793973\,b_6b_4)x^{11}+(-\frac{91334367}{2}\,b_2b_6b_4-\frac{80599803}{128}\,b_4b_2{}^4+\frac{860964705}{8}\,b_6{}^2-73072965\,b_4{}^3+\frac{22824699}{16}\,b_6b_2{}^3+\frac{213618423}{16}\,b_4{}^2b_2{}^2+\frac{18164643}{2048}\,b_2{}^6)x^{13}+(-\frac{2752977713}{8}\,b_4{}^2b_6-\frac{3279619995}{32}\,b_2b_6{}^2-\frac{4500031051}{64}\,b_4{}^2b_2{}^3+\frac{1320625865}{512}\,b_4b_2{}^5-\frac{253000835}{8192}\,b_2{}^7-\frac{3224687179}{512}\,b_6b_2{}^4+\frac{2483068219}{4}\,b_4{}^3b_2+\frac{4899509301}{16}\,b_4b_2{}^2b_6)x^{15}+(-\frac{117850607757}{2}\,b_4b_6{}^2+\frac{3523847043}{32768}\,b_2{}^8-4528720044\,b_4{}^3b_2{}^2+\frac{172906226361}{8}\,b_6b_2b_4{}^2-\frac{11825774691}{16}\,b_4b_2{}^3b_6+\frac{44333768907}{128}\,b_2{}^4b_4{}^2+\frac{3192175383}{128}\,b_2{}^5b_6+\frac{72602448183}{32}\,b_6{}^2b_2{}^2+\frac{63880701465}{4}\,b_4{}^4-\frac{5288818617}{512}\,b_2{}^6b_4)x^{17}+$$

$$(-\frac{49080857763}{131072}\,{b_2}^9-\frac{3132952905915}{8}\,{b_6}^3+\frac{1959989527035}{2}\,{b_4}^3b_6-\frac{5093467418685}{32}\,{b_4}^2b_6{b_2}^2+\frac{918148786995}{128}\,b_4b_6{b_2}^4-\frac{2698069032609}{16}\,{b_4}^4b_2-\frac{867433527165}{128}\,b_6{b_2}^3+223797321900\,{b_6}^2b_2b_4+\frac{83277183891}{2048}\,{b_2}^7b_4-\frac{827779831287}{512}\,{b_2}^5{b_4}^2+\frac{221100224157}{8}\,{b_2}^3{b_4}^3-\frac{202602540045}{2048}\,{b_2}^6b_6)x^{19}+(\frac{193242500429085}{8}\,{b_4}^2{b_6}^2-\frac{32022765846729}{16}\,b_4{b_6}^2{b_2}^2+\frac{116229759534935}{128}\,{b_4}^2b_6{b_2}^3-\frac{8358989530699}{256}\,{b_2}^5b_6b_4+\frac{90230069784853}{64}\,{b_2}^2{b_4}^4-\frac{19733041444383}{128}\,{b_2}^4{b_4}^3+\frac{788830173653}{2048}\,{b_2}^7b_6+\frac{41065926446689}{1024}\,{b_6}^2{b_2}^4+\frac{5652400226475}{32}\,{b_2}{b_6}^3-\frac{16525204657605}{2}\,b_6{b_2}b_4{}^3-\frac{13960822078791}{4}\,{b_4}^5-\frac{5175210140525}{32768}\,{b_2}^8b_4+\frac{683608161635}{524288}\,{b_2}^{10}+\frac{14880956520649}{2048}\,{b_2}^6{b_4}^2)x^{21}+(-\frac{1424212391418237}{128}\,{b_6}^3{b_2}^2+\frac{2284946203280193}{8}\,{b_6}^3b_4-\frac{9521433405123}{2097152}\,{b_2}^{11}-\frac{4231343173469409}{16}\,b_6{b_4}^4+\frac{1263949906111443}{128}\,b_4{b_6}^2{b_2}^3-\frac{5067353550835095}{1024}\,{b_4}^2b_6{b_2}^4+\frac{2152116173744061}{32}\,b_6b_4{}^3{b_2}^2-\frac{259781038771749}{8192}\,{b_2}^7{b_4}^2-\frac{194508026366181}{131072}\,{b_2}^8b_6-\frac{4656713409797067}{32}\,{b_6}^2b_2{b_4}^2-\frac{672801274075323}{4096}\,{b_2}^5{b_6}^2-\frac{2492848032885165}{256}\,{b_2}^3{b_4}^4+\frac{704918323310757}{16}\,b_2{b_4}^5+\frac{4113424413069445}{512}\,{b_2}^5{b_4}^3+\frac{295905683062575}{2048}\,{b_2}^6b_6b_4+\frac{79541359041519}{131072}\,{b_2}^9b_4)x^{23}+(\frac{18231675817780757}{128}\,{b_6}^4-\frac{3810950154314361}{4}\,b_2{b_6}^3b_4-\frac{605886185552139}{262144}\,{b_2}^{10}b_4+\frac{132616459510083}{8388608}\,{b_2}^{12}-\frac{3519853572220191}{8}\,b_6{b_4}^3{b_2}^3+\frac{1113198798258141}{4}\,b_6{b_4}^4b_2+\frac{7043955929801613}{256}\,{b_6}^3{b_2}^3-\frac{33795521443578195}{4}\,{b_6}^2{b_4}^3-\frac{27822374450128845}{512}\,b_4{b_6}^2{b_2}^4+\frac{80303366407161573}{64}\,{b_6}^2{b_4}^2{b_2}^2+\frac{8862339864524031}{65536}\,{b_2}^8{b_4}^2-\frac{2040347750735475}{512}\,{b_2}^6{b_4}^3+\frac{371180225756043}{65536}\,{b_2}^9b_6+\frac{6027258298795983}{8192}\,{b_2}^6{b_6}^2-\frac{13273584989807457}{32}\,{b_2}^2{b_4}^5+\frac{61874159825050839}{1024}\,{b_2}^4{b_4}^4+\frac{51489099970904691}{2048}\,{b_2}^5b_6{b_4}^2-\frac{1274347154480751}{2048}\,b_4{b_2}^7b_6+\frac{6102146502432477}{8}\,{b_4}^6)x^{25}+(\frac{550077907106378231}{8}\,b_6{b_4}^5+\frac{40818378201251017 1}{128}\,{b_2}^3{b_4}^5-\frac{358495794918210089}{32}\,b_2{b_4}^6+\frac{1358926208054956049}{512}\,{b_2}^4b_6{b_4}^3+\frac{271952054995921051}{1024}\,{b_6}^2b_4{b_2}^5-\frac{322181810129210823 9}{128}\,b_6{b_4}^4{b_2}^2-\frac{101414810714370021}{32768}\,{b_2}^7{b_6}^2-\frac{1003611762298730889}{8192}\,{b_2}^6b_6{b_4}^2-\frac{916372671600968683 7}{64}\,{b_4}^2{b_6}^3+\frac{111222532234345479 7}{16}\,{b_4}^3{b_6}^2b_2+\frac{35641671498170023}{512}\,{b_2}{b_6}^4-\frac{1847108999736035}{33554432}\,{b_2}^{13}-\frac{191747237818583327 1}{256}\,{b_6}^2{b_4}^2{b_2}^3-\frac{461189390731858413}{2048}\,{b_6}^3{b_2}^4+\frac{728176887111851851}{64}\,b_4{b_6}^3{b_2}^2+\frac{9162505009442585}{1048576}\,{b_2}^{11}b_4-\frac{148348193247444555}{262144}\,{b_2}^9{b_4}^2-\frac{1419191306370340527}{4096}\,{b_4}^4{b_2}^5+\frac{4869179494998525}{256}\,{b_2}^7{b_4}^3-\frac{22492709856695103}{1048576}\,{b_2}^{10}b_6+\frac{172055851611219715}{65536}\,{b_2}^8b_4b_6)x^{27}+O(x^{29})$$

$$[7]_C(x)=7\,x-28\,b_2x^3+(133\,{b_2}^2-3360\,b_4)x^5+(-\frac{2551}{4}\,{b_2}^3+20152\,b_4b_2-88236\,b_6)x^7+(\frac{48965}{16}\,{b_2}^4-139860\,b_4{b_2}^2+188720\,b_6b_2+1341760\,{b_4}^2)x^9+(848183\,b_4{b_2}^3-\frac{939911}{64}\,{b_2}^5-\frac{4602661}{2}\,b_6{b_2}^2-12103280\,{b_4}^2b_2+58937676\,b_6b_4)x^{11}+(-358520470\,b_2b_6b_4-\frac{39582851}{8}\,b_4{b_2}^4+798469623\,{b_6}^2-544136320\,{b_4}^3+\frac{22668611}{2}\,b_6{b_2}^3+103166812\,{b_4}^2{b_2}^2+\frac{18042213}{256}\,{b_2}^6)x^{13}+(-34859091519\,{b_4}^2b_6-\frac{5389528431}{4}\,b_2{b_6}^2-750755621\,{b_4}^2{b_2}^3+\frac{893901477}{32}\,b_4{b_2}^5-\frac{346332343}{1024}\,{b_2}^7-\frac{4341807701}{64}\,b_6{b_2}^4+6501967584\,{b_4}^3b_2+\frac{12926257463}{4}\,b_4{b_2}^2b_6)x^{15}+(-811711643652\,b_4{b_6}^2+\frac{6648081125}{4096}\,{b_2}^8-65324781984\,{b_4}^3{b_2}^2+313497872583\,b_6{b_2}b_4{}^2-\frac{43517529671}{2}\,b_4{b_2}^3b_6+\frac{10195001215}{2}\,{b_2}^4{b_4}^2+372174292\,{b_2}^5b_6+\frac{126818513157}{4}\,{b_6}^2{b_2}^2+220687156480\,{b_4}^4-\frac{4933636253}{32}\,{b_2}^6b_4)x^{17}+(-\frac{127614367111}{16384}\,{b_2}^9-7327455378075\,{b_6}^3+18422185835417\,{b_4}^3b_6-3140722651493\,{b_4}^2{b_6}^2{b_2}^2+\frac{4640812494941}{32}\,b_4{b_6}{b_2}^4-3282848465344\,{b_4}^4b_2-\frac{2285441228665}{16}\,{b_6}^2{b_2}^3+4604188075900\,{b_6}^2b_2b_4+\frac{107063134311}{128}\,{b_2}^7b_4-\frac{262479616469}{8}\,{b_2}^5{b_4}^2+551231140152\,{b_2}^3{b_4}^3-\frac{520130022657}{256}\,{b_2}^6b_6)x^{19}+(\frac{1234924106179827}{2}\,{b_4}^2{b_6}^2-\frac{214179650052773}{4}\,b_4{b_6}^2{b_2}^2+\frac{398704904537195}{16}\,{b_4}^2{b_6}{b_2}^3-\frac{58340019008919}{64}\,{b_2}^5b_6b_4+37908401235600\,{b_2}^2{b_4}^4-4242185642629\,{b_2}^4{b_4}^3+\frac{2792010378335}{256}\,{b_2}^7b_6+\frac{140461337871095}{128}\,{b_6}^2{b_2}^4+\frac{34752875787789}{4}\,b_2{b_6}^3-\frac{443494984388883}{2}\,b_6{b_2}b_4{}^3-89502449881600\,{b_4}^5-\frac{9169534892221}{2048}\,{b_2}^8b_4+\frac{2449643196357}{65536}\,{b_2}^{10}+\frac{6504898688161}{32}\,{b_2}^6{b_4}^2)x^{21}+(-\frac{3116864604094185}{8}\,{b_6}^3{b_2}^2+\frac{39697264766732517}{4}\,{b_6}^3b_4-\frac{47022540842487}{262144}\,{b_2}^{11}-\frac{1845021102213987}{2}\,b_6b_4{}^4+375527894891275\,b_4{b_6}^2{b_2}^3-\frac{23937253357153493}{128}\,{b_4}^2{b_6}{b_2}^4+\frac{39621790851007631}{16}\,b_6{b_4}^3{b_2}^2-\frac{156540345430931}{128}\,{b_2}^7{b_4}^2-\frac{948757053651407}{16384}\,{b_2}^8b_6-\frac{43573508231123115}{8}\,{b_6}^2{b_2}b_4{}^2-\frac{3255214364146311}{512}\,{b_2}^5{b_6}^2-362330865149260\,{b_2}^3{b_4}^4+1593356782037888\,b_2{b_4}^5+\frac{1220034748606 59}{4}\,{b_2}^5{b_4}^3+\frac{2846342874670925}{512}\,{b_2}^6b_6b_4+\frac{194230898410675}{8192}\,{b_2}^9b_4)x^{23}+(\frac{1075357840738003011}{16}\,{b_6}^4-\frac{207307500643857201}{4}\,b_2{b_6}^3b_4-\frac{2039025792701807}{16384}\,{b_2}^{10}b_4+\frac{902629146389509}{1048576}\,{b_2}^{12}-\frac{359884702269913233}{16}\,b_6{b_4}^3{b_2}^3+1383973325719083 75\,b_6{b_4}^4b_2+\frac{50117703109573701}{32}\,{b_6}^3{b_2}^3-400798512354247434\,{b_6}^2{b_4}^3-\frac{180073189709962647}{64}\,b_4{b_6}^2{b_2}^4+\frac{1007743939313904891}{16}\,{b_6}^2{b_4}^2{b_2}^2+\frac{7361287150841099}{1024}\,{b_2}^8{b_4}^2-\frac{1669279295348217}{8}\,{b_2}^6{b_4}^3+\frac{1247648714157307}{4096}\,{b_2}^9b_6+\frac{3977163224063094 1}{1024}\,{b_2}^6{b_6}^2-207704726833878 40\,{b_2}^2{b_4}^5+3104881630425547\,{b_2}^4{b_4}^4+\frac{335888781135518009}{256}\,{b_2}^5b_6{b_4}^2-\frac{16901118449448275}{512}\,b_4{b_2}^7b_6+3629886514810572 8\,{b_4}^6)x^{25}+(\frac{8901947677468815571}{2}\,b_6{b_4}^5+221167121643333712\,{b_2}^3{b_4}^5-752445740547925760\,{b_2}b_4{}^6+\frac{4793671847679825681 9}{256}\,{b_2}^4b_6{b_4}^3+\frac{1221295427716023457}{64}\,{b_6}^2{b_2}^4{b_4}^2-\frac{2762133696920702544 3}{16}\,b_6{b_4}^4{b_2}^2-\frac{926244642687858809}{4096}\,{b_2}^7{b_6}^2-\frac{4514588537218598111}{512}\,{b_2}^6b_6{b_4}^2-\frac{7387133657706517978 9}{8}\,{b_4}^2{b_6}^3+\frac{9568247818630866967}{2}\,{b_4}^3{b_6}^2{b_2}-\frac{2949862680064800325}{64}\,b_2{b_6}^4-\frac{17326570647067143}{4194304}\,{b_2}^{13}-\frac{3379398920929569955 9}{64}\,{b_6}^2{b_4}^2{b_2}^3-\frac{3973859942313738995}{256}\,{b_6}^3{b_2}^4+\frac{2458162524758366874 7}{32}\,b_4{b_6}^3{b_2}^2+\frac{4249643879299270 9}{65536}\,{b_2}^{11}b_4-\frac{169847673564223305}{4096}\,{b_2}^9{b_4}^2-\frac{9831568722224132 1}{4}\,{b_4}^4{b_2}^5+\frac{43947601204036243}{32}\,{b_2}^7{b_4}^3-\frac{2083969477547320 23}{131072}\,{b_2}^{10}b_6+\frac{3145631611444556325}{16384}\,{b_2}^8b_4b_6)x^{27}+O(x^{29})$$

$$[8]_C(x)=8\,x-42\,b_2x^3+(\frac{525}{2}\,{b_2}^2-6552\,b_4)x^5+(-\frac{13257}{8}\,{b_2}^3+52170\,b_4b_2-224694\,b_6)x^7+(\frac{335033}{32}\,{b_2}^4-474549\,b_4{b_2}^2+4467372\,{b_4}^2+667830\,b_6b_2)x^9+(\frac{15174351}{4}\,b_4{b_2}^3-\frac{8467613}{128}\,{b_2}^5-\frac{40576179}{4}\,b_6{b_2}^2-53653683\,{b_4}^2b_2+256264380\,b_6b_4)x^{11}+(-2106931434\,b_2b_6b_4-\frac{932161973}{32}\,b_4{b_2}^4+\frac{9061571979}{2}\,{b_6}^2-3093141660\,{b_4}^3+\frac{537044859}{8}\,b_6{b_2}^3+\frac{2403198561}{4}\,{b_4}^2{b_2}^2+\frac{214011525}{512}\,{b_2}^6)x^{13}+(-\frac{517490114553}{2}\,{b_4}^2b_6-\frac{91909208313}{8}\,b_2{b_6}^2-\frac{92244499449}{16}\,{b_4}^2{b_2}^3+\frac{27717617179}{128}\,b_4{b_2}^5-\frac{5408957457}{2048}\,{b_2}^7-\frac{67124996601}{128}\,b_6{b_2}^4+49291381101\,{b_4}^3b_2+\frac{98590613511}{4}\,b_4{b_2}^2b_6)x^{15}+(-7865833250934\,b_4{b_6}^2+\frac{136706760177}{8192}\,{b_2}^8-651972805245\,{b_4}^3{b_2}^2+3137220545697\,b_6b_2{b_4}^2-\frac{439992891597}{2}\,b_4{b_2}^3b_6+\frac{1649562360281}{32}\,{b_2}^4{b_4}^2+\frac{243065145621}{64}\,{b_2}^5b_6+\frac{2487425633433}{8}\,{b_6}^2{b_2}^2+2141858476275\,{b_4}^4-\frac{201418709129}{128}\,{b_2}^6b_4)x^{17}+(-\frac{3455146118053}{32768}\,{b_2}^9-\frac{185296195578825}{2}\,{b_6}^3+233462486188362\,{b_4}^3b_6-\frac{328730945313909}{8}\,{b_4}^2b_6{b_2}^2+\frac{61678777087801}{32}\,b_4{b_6}{b_2}^4-\frac{170133112411911}{4}\,{b_4}^4b_2-\frac{62071545487815}{32}\,{b_6}^2{b_2}^3+\frac{123284706897855}{2}\,{b_6}^2b_2b_4+\frac{5754960531283}{512}\,{b_2}^7b_4-\frac{55934964752337}{128}\,{b_2}^5{b_4}^2+\frac{29032524737283}{4}\,{b_2}^3{b_4}^3-\frac{13967964223899}{512}\,{b_2}^6b_6)x^{19}+(\frac{20431275224899599}{2}\,{b_4}^2{b_6}^2-\frac{7310601785948163}{8}\,b_4{b_6}^2{b_2}^2+\frac{6904052131519299}{16}\,{b_4}^2b_6{b_2}^3-\frac{1021928871347569}{64}\,{b_2}^5b_6b_4+\frac{10364816844737547}{16}\,{b_2}^2{b_4}^4-\frac{2355201241704775}{32}\,{b_2}^4{b_4}^3+\frac{197427231010057}{1024}\,{b_2}^7b_6+\frac{4869564952817739}{256}\,{b_6}^2{b_2}^4+\frac{753560550738621}{4}\,b_2{b_6}^3-3782059181604417\,b_6b_2{b_4}^3-1483099732930557\,{b_4}^5-\frac{648963000414151}{8192}\,{b_2}^8b_4+\frac{87325854890365}{131072}\,{b_2}^{10}+\frac{1825496109048399}{512}\,{b_2}^6{b_4}^2)x^{21}+(-\frac{271684570865684427}{32}\,{b_6}^3{b_2}^2+\frac{42863233821324662 7}{2}\,{b_6}^3b_4-\frac{2207086088994009}{524288}\,{b_2}^{11}-\frac{79839662441797466 7}{4}\,b_6{b_4}^4+\frac{274705446480024063}{32}\,b_4{b_6}^2{b_2}^3-\frac{109134689992596291 7}{256}\,{b_4}^2{b_6}{b_2}^4+\frac{4440394243280409 27}{8}\,b_6{b_4}^3{b_2}^2-\frac{57850082404117783}{2048}\,{b_2}^7{b_4}^2-\frac{4417549079356311}{32768}\,{b_2}^8b_6-\frac{984821883471243297}{8}\,{b_6}^2{b_2}b_4{}^2-\frac{150558403117394721}{1024}\,{b_2}^5{b_6}^2-\frac{523091955914812215}{64}\,{b_2}^3{b_4}^4+\frac{141078531601810515}{4}\,b_2{b_4}^5+\frac{89244201066939157}{128}\,{b_2}^5{b_4}^3+\frac{65653476871458421}{512}\,{b_2}^6b_6b_4+\frac{180992988963420 49}{32768}\,{b_2}^9b_4)x^{23}+(\frac{6059472274848318752 7}{32}\,{b_6}^4-\frac{3172403939058053577}{2}\,b_2{b_6}^3b_4-\frac{250171227563748439}{65536}\,{b_2}^{10}b_4+\frac{5578220803405200 9}{2097152}\,{b_2}^{12}-\frac{5333582093689737951}{8}\,b_6{b_4}^3{b_2}^3+\frac{16106267690682795297}{4}\,b_6{b_4}^4b_2+\frac{1570387730542294851}{32}\,{b_6}^3{b_2}^3-11321627263147144377\,{b_6}^2{b_4}^3-\frac{1077583633525033089 3}{128}\,b_4{b_6}^2{b_2}^4+\frac{2955629303196456437 1}{16}\,{b_6}^2{b_4}^2{b_2}^2+\frac{3582240732273628629}{16384}\,{b_2}^8{b_4}^2-\frac{160849160383370075 7}{256}\,{b_2}^6{b_4}^3+\frac{3059547708757023 33}{32768}\,{b_2}^9b_6+\frac{2410436164457282481}{2048}\,{b_2}^6{b_6}^2-\frac{485876479322275652 1}{8}\,{b_2}^2{b_4}^5+\frac{2363970088414120325 3}{256}\,{b_2}^4{b_4}^4+\frac{1009342183058461053 9}{256}\,{b_2}^5b_6{b_4}^2-\frac{513415670728593145}{512}\,b_4{b_2}^7b_6+\frac{2053904121464604927}{2}\,{b_4}^6)x^{25}+(\frac{3288438034618327648 05}{2}\,b_6{b_4}^5+\frac{2733432295243660458 27}{32}\,{b_2}^3{b_4}^5-\frac{2276048305906252612447}{8}\,b_2{b_4}^6+\frac{9364206155204031397 59}{128}\,{b_2}^4b_6{b_4}^3+\frac{3862759443947122668 09}{512}\,{b_6}^2b_4{b_2}^5-\frac{2118849934797403532049}{32}\,b_6{b_4}^4{b_2}^2-\frac{7405661615144653539 9}{8192}\,{b_2}^7{b_6}^2-\frac{7148421681443077190 25}{2048}\,{b_2}^6b_6{b_4}^2-\frac{5447689211374648644711}{16}\,{b_4}^2{b_6}^3+$$

$\frac{7345127358958148204 73}{4}\,{b_4}^3{b_6}^2b_2 - \frac{3716845249322099013 51}{128}\,b_2{b_6}^4 - \frac{1409847467514687789}{8388608}\,{b_2}^{13} - \frac{1318808854071310967697}{64}\,{b_6}^2{b_4}^2{b_2}^3 - \frac{3075250904072343479 95}{512}\,{b_6}^3{b_2}^4 + \frac{4681339693246056498 81}{16}\,b_4{b_6}^3{b_2}^2 + \frac{6864970803384628549}{262144}\,{b_2}^{11}b_4 - \frac{1088364812377232183 17}{65536}\,{b_2}^9{b_4}^2 - \frac{9866672492402478356 65}{1024}\,{b_4}^4{b_2}^5 + \frac{5577820426099788947 5}{1024}\,{b_2}^7{b_4}^3 - \frac{1682178680537639216 9}{262144}\,{b_2}^{10}b_6 + \frac{1258358501640764138 49}{16384}\,{b_2}^8b_4b_6)x^{27} + O(x^{29})$

$[9]_C(x) = 9\,x - 60\,b_2x^3 + (477\,{b_2}^2 - 11808\,b_4)x^5 + (-\frac{15327}{4}\,{b_2}^3 + 120312\,b_4b_2 - 512460\,b_6)x^7 + (\frac{492925}{16}\,{b_2}^4 - 1388532\,b_4{b_2}^2 + 12902208\,{b_4}^2 + 2007120\,b_6b_2)x^9 + (14135679\,b_4{b_2}^3 - \frac{15854031}{64}\,{b_2}^5 - \frac{74892573}{2}\,b_6{b_2}^2 - 198677232\,{b_4}^2b_2 + 936632556\,b_6b_4)x^{11} + (-9971721702\,b_2b_6b_4 - \frac{1104888411}{8}\,b_4{b_2}^4 + 20949059295\,{b_6}^2 - 14315499648\,{b_4}^3 + \frac{638876511}{2}\,b_6{b_2}^3 + 2827234044\,{b_4}^2{b_2}^2 + \frac{509919741}{256}\,{b_2}^6)x^{13} + (-1515370792743\,{b_4}^2b_6 - \frac{293035882455}{4}\,b_2{b_6}^2 - 34558845597\,{b_4}^2{b_2}^3 + \frac{41809136157}{32}\,b_4{b_2}^5 - \frac{16400770527}{1024}\,{b_2}^7 - \frac{202168883277}{64}\,b_6{b_2}^4 + 292815358944\,{b_4}^3b_2 + \frac{588423548511}{4}\,b_4{b_2}^2b_6)x^{15} + (-58289503152132\,b_4{b_6}^2 + \frac{527505153885}{4096}\,{b_2}^8 - 4929160250016\,{b_4}^3{b_2}^2 + 23752854066951\,b_6b_2{b_4}^2 - \frac{3356047210095}{2}\,b_4{b_2}^3b_6 + \frac{786554831367}{2}\,{b_2}^4{b_4}^2 + \frac{116627236371}{4}\,{b_2}^5b_6 + \frac{9303234365277}{4}\,{b_6}^2{b_2}^2 + 15885315341568\,{b_4}^4 - \frac{386630449605}{32}\,{b_2}^6b_4)x^{17} + (-\frac{16966379025423}{16384}\,{b_2}^9 - 868459206170835\,{b_6}^3 + 2191095300492945\,{b_4}^3b_6 - 394239681964665\,{b_4}^2b_6{b_2}^2 + \frac{598145677870005}{32}\,b_4b_6{b_2}^4 - 405171321988032\,{b_4}^4b_2 - \frac{304830473222385}{16}\,{b_6}^2{b_2}^3 + 599854855621500\,{b_6}^2b_2b_4 + \frac{14057933814639}{128}\,{b_2}^7b_4 - \frac{33948248920173}{8}\,{b_2}^5{b_4}^2 + 69923887026552\,{b_2}^3{b_4}^3 - \frac{68208580210905}{256}\,{b_2}^6b_6)x^{19} + (\frac{242624336811512283}{2}\,{b_4}^2{b_6}^2 - \frac{44368968288269925}{4}\,b_4{b_6}^2{b_2}^2 + \frac{84572041471675803}{16}\,{b_4}^2b_6{b_2}^3 - \frac{12619557393972255}{64}\,{b_2}^5b_6b_4 + 7863490106693136\,{b_2}^2{b_4}^4 - 902809208779533\,{b_2}^4{b_4}^3 + \frac{613623870928323}{256}\,{b_2}^7b_6 + \frac{29880885994783263}{128}\,{b_6}^2{b_2}^4 + \frac{10401022112057325}{4}\,b_2{b_6}^3 - \frac{91671657773731803}{2}\,b_6b_2{b_4}^3 - 17626815418065408\,{b_4}^5 - \frac{2017356030149733}{2048}\,{b_2}^8b_4 + \frac{545697070972317}{65536}\,{b_2}^{10} + \frac{1410118309465785}{32}\,{b_2}^6{b_4}^2)x^{21} + (-\frac{102865426591268 4129}{8}\,{b_6}^3{b_2}^2 + \frac{12879695726747666973}{4}\,{b_6}^3b_4 - \frac{17551493623791711}{262144}\,{b_2}^{11} - \frac{6003793374269283891}{2}\,b_6{b_4}^4 + 1340189820376414 83\,b_4{b_6}^2{b_2}^3 - \frac{8506603863583693389}{128}\,{b_4}^2b_6{b_2}^4 + \frac{136845390894358377 51}{16}\,b_6{b_4}^3{b_2}^2 - \frac{56873249086633371}{128}\,{b_2}^7{b_4}^2 - \frac{34937376474436991 1}{16384}\,{b_2}^8b_6 - \frac{15248150065605349107}{8}\,{b_6}^2{b_2}^2{b_4}^2 - \frac{11846999473256372 31}{512}\,{b_2}^5{b_6}^2 - 126475389469009260\,{b_2}^3{b_4}^4 + 538644566619398016\,b_2{b_4}^5 + \frac{43554726665571195}{4}\,{b_2}^5{b_4}^3 + \frac{10318317306200970 93}{512}\,{b_2}^6b_6b_4 + \frac{715992251564543 31}{8192}\,{b_2}^9b_4)x^{23} + (\frac{5757577428961839166 83}{16}\,{b_6}^4 - \frac{1271489228043478879 77}{4}\,b_2{b_6}^3b_4 - \frac{1259413201330556967}{16384}\,{b_2}^{10}b_4 + \frac{5645163678054022 1}{1048576}\,{b_2}^{12} - \frac{2097693600813845925 21}{16}\,b_6{b_4}^3{b_2}^3 + 781557209827602 43059\,b_6{b_4}^4b_2 + \frac{3192620945972174795 7}{32}\,{b_6}^3{b_2}^3 - 215451315324163605114\,{b_6}^2{b_4}^3 - \frac{1066874547751383608 55}{64}\,b_4{b_6}^2{b_2}^4 + \frac{5773341712877641449 63}{16}\,{b_6}^2{b_4}^2{b_2}^2 + \frac{4482072385998289011}{1024}\,{b_2}^8{b_4}^2 - \frac{99931893920898646 5}{8}\,{b_2}^6{b_4}^3 + \frac{769830700678837641}{4096}\,{b_2}^9b_6 + \frac{2407509816868449688 5}{1024}\,{b_2}^6{b_6}^2 - 11831883957274474944\,{b_2}^2{b_4}^5 + 1820158954231288275\,{b_2}^4{b_4}^4 + \frac{2003906885809539077 37}{256}\,{b_2}^5b_6{b_4}^2 - \frac{1027018835043538 5171}{512}\,b_4{b_2}^7b_6 + 19559244929607300096\,{b_4}^6)x^{25} + (\frac{7925427596616348106299}{2}\,b_6{b_4}^5 + 212224707913557450192\,{b_2}^3{b_4}^5 - 696513601358060072704\,b_2{b_4}^6 + \frac{4690729333828350683791 5}{256}\,{b_2}^4b_6{b_4}^3 + \frac{1219263969161437995105}{64}\,{b_6}^2b_4{b_2}^5 - \frac{2619965572734039471 5307}{16}\,b_6{b_4}^4{b_2}^2 - \frac{9422767234599846476 01}{4096}\,{b_2}^7{b_6}^2 - \frac{4516812196750157517759}{512}\,{b_2}^6b_6{b_4}^2 - \frac{6558243235876726098 6309}{8}\,{b_4}^2{b_6}^3 + \frac{9081214298527292031135}{2}\,{b_4}^3{b_6}^2b_2 - \frac{5744248429947501766173}{64}\,b_2{b_6}^4 - \frac{1815678690095933819 1}{4194304}\,{b_2}^{13} - \frac{3299797296934952803614 3}{64}\,{b_6}^2{b_4}^2{b_2}^3 - \frac{3833920000564582484939}{256}\,{b_6}^3{b_2}^4 + \frac{2307481611921678635064 3}{32}\,b_4{b_6}^3{b_2}^2 + \frac{4397989206771602614 1}{65536}\,{b_2}^{11}b_4 - \frac{1733054378812927818 25}{4096}\,{b_2}^9{b_4}^2 - \frac{9675013852524441699 3}{4}\,{b_4}^4{b_2}^5 + \frac{4411131173454368140 3}{32}\,{b_2}^7{b_4}^3 - \frac{2154556931970797238 07}{131072}\,{b_2}^{10}b_6 + \frac{3203674805651443600893}{16384}\,{b_2}^8b_4b_6)x^{27} + O(x^{29})$

9.3. $F_C(x,y)$ **for** $C : y^2 = x^3 - \frac{1}{48}c_4x - \frac{1}{864}c_6$ **over** $\mathbb{Z}[\frac{1}{6}, c_4, c_6]$**,** $\mathbb{Z}/(5)[c_4, c_6]$**, and** $\mathbb{Z}/(7)[c_4, c_6]$ **with coordinate** $z = -\frac{x}{y}$**.**

```
> restart: with(powseries):
> m:=55:
> Order:=m:
> assign({a[1]=0,a[2]=0,a[3]=0,a[4]=-c[4]/48,a[6]=-c[6]/864});
> z^3 + a[1]*z*w + a[2]*z^2*w + a[3]*w^2 + a[4]*z*w^2 + a[6]*w^3;
> simplify(mtaylor(subs(
  w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3,%),
  [z,w],m)): # O(4)
> simplify(mtaylor(subs(
  w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3,%),
  [z,w],m)): # O(5)
> # Repeat this until O(55)
> series(%,z);
> # Let's "hard code" the result above
> w:=z->1*z^3+(-1/48*c[4])*z^7+(-1/864*c[6])*z^9+(terms omitted);
> x:=z->z/w(z);
> y:=z->-1/w(z);
> # Let's calculate the invariant differential.
> simplify(series((diff( simplify(series(x(z),z)), z))
  / (2*y(z) + a[1]*x(z) + a[3]), z));
> # Let's hard code the result of the invariant differential.
> eta_a:=z->1+(-1/24*c[4])*z^4
  +(-1/288*c[6])*z^6+1/384*c[4]^2*z^8+(terms omitted);
> latex(%);
> f:=x->add(coeff(eta_a(x),x,i-1)*x^i/i,i=1..(m-1));
> latex(series(f(x),x,m));
> log_C:=powpoly(f(x),x);
> exp_C:=reversion(log_C);
> simplify(tpsform(exp_C,x,50));
> latex(%);
> # Let's hard code the result of the exponential.
> e:=x->1*x+1/120*c[4]*x^5+1/2016*c[6]*x^7+(terms omitted);
> F_C:=(x,y)->sort(simplify(mtaylor(e(f(x)+f(y)),[x,y],26)),[x,y]);
> F_C(x,y);
> latex(%);
> # Hard code the result.
> F:=(x,y)->-5/30958682112*c[6]^4*x^24*y-7/1019215872*c[4]^6*x^24*y+...;
> # Let's look at this fgl mod some primes p>3.
> sort(F(x,y) mod 5,[x,y]);
> latex(%);
> sort(F(x,y) mod 7,[x,y]);\
> latex(%);
> simplify(series(e(5*f(x)),x,26)) mod 5;
```

```
> latex(%);
> simplify(series(e(7*f(x)),x,50)) mod 7;
> latex(%);
```

The results of these computations are that the invariant differential $\eta_{\vec{a}}$ equals

$$1 + (-\frac{2042975}{2300255995468485073056}\,{c_6}^7{c_4}^2 + \frac{2860165}{4259733324941639002464}\,{c_6}^5{c_4}^5 + \frac{1300075}{5609525366178290073 6}\,{c_4}^{11}c_6 - \frac{10214875}{2524286414780230533 12}\,{c_6}^3{c_4}^8)z^{50} + (\frac{46189}{16231265527136256}\,{c_4}^{10} + \frac{734825}{2465123451933818 88}\,{c_6}^4{c_4}^4 - \frac{20995}{1521681143169024}\,{c_4}^7{c_6}^2 - \frac{11305}{4159895821338319 36}\,{c_6}^6c_4)z^{40} + (\frac{124355}{1331166664044262195 2}\,{c_6}^6{c_4}^2 - \frac{870485}{1972098761547055104}\,{c_4}^5{c_6}^4 + \frac{1616615}{1168651117953810432}\,{c_4}^8{c_6}^2 - \frac{29393}{129850124217090048}\,{c_4}^{11})z^{44} + (-\frac{385}{764411904}\,{c_4}^4c_6 + \frac{55}{1289945088}\,c_4{c_6}^3)z^{22} + (\frac{143}{3057647616}\,{c_4}^5{c_6} - \frac{715}{82556485632}\,{c_6}^3{c_4}^2)z^{26} + (\frac{77}{1019215872}\,{c_4}^6 - \frac{55}{573308928}\,{c_4}^3{c_6}^2 + \frac{55}{61917364224}\,{c_6}^4)z^{24} + (-\frac{7}{7077888}\,{c_4}^5 + \frac{35}{47775744}\,{c_6}^2{c_4}^2)z^{20} + (\frac{7}{1327104}\,{c_4}^3c_6 - \frac{7}{53747712}\,{c_6}^3)z^{18} + (\frac{35}{2654208}\,{c_4}^4 - \frac{7}{1492992}\,c_4{c_6}^2)z^{16} - \frac{1}{288}\,{c_6}z^6 + \frac{1}{384}\,{c_4}^2z^8 + (\frac{132793375}{2726229327962648975 6696}\,{c_4}^7{c_6}^4 - \frac{58429085}{6058287395472553279488}\,{c_4}^{10}{c_6}^2 - \frac{10935925}{4089343991943973463 6544}\,{c_4}^4{c_6}^6 + \frac{1562275}{1863207356329472909377536}\,c_4{c_6}^8 + \frac{185725}{1495873430980877352 96}\,{c_4}^{13})z^{52} - 1/24\,c_4z^4 + (\frac{81719}{3594149992919507927 04}\,{c_6}^7c_4 - \frac{2860165}{7099555541569398374 4}\,{c_6}^5{c_4}^4 + \frac{2860165}{7888395046188220416}\,{c_4}^7{c_6}^3 - \frac{7436429}{2804762683089145036 8}\,{c_4}^{10}c_6)z^{46} + (-\frac{572033}{2396099995279671951 36}\,{c_4}^3{c_6}^6 + \frac{6760 39}{3739683577452193382 4}\,{c_4}^{12} + \frac{2860165}{4733037027712932249 6}\,{c_4}^6{c_6}^4 - \frac{2860165}{2103572012316858777 6}\,{c_6}^2{c_4}^9 + \frac{81719}{3450383993202727609 9584}\,{c_6}^8)z^{48} + (\frac{79135}{3697685177900728 32}\,{c_6}^5{c_4}^3 - \frac{1615}{4991874990165983232}\,{c_6}^7 - \frac{1028755}{3286831269245091 84}\,{c_6}^3{c_4}^6 + \frac{146965}{4869379658140876 8}\,{c_4}^9c_6)z^{42} + (-\frac{29393}{3081404314917273 6}\,{c_4}^2{c_6}^5 + \frac{29393}{1141260857376768}\,{c_4}^5{c_6}^3 - \frac{46189}{1352605460594688}\,{c_4}^8c_6)z^{38} + (\frac{1547}{3466579854281932 8}\,{c_6}^6 - \frac{7735}{4279728215162 88}\,{c_4}^3{c_6}^4 + \frac{17017}{126806761930752}\,{c_4}^6{c_6}^2 - \frac{12155}{338151365148672}\,{c_4}^9)z^{36} + (\frac{5005}{5349660268953 6}\,{c_4}^4{c_4}^2 - \frac{5005}{3962711310336}\,{c_6}^2{c_4}^5 + \frac{715}{1565515579392}\,{c_4}^8)z^{32} + (-\frac{1001}{1604898080686 08}\,{c_6}^5 + \frac{25025}{1783220089651 2}\,{c_6}^3{c_4}^3 - \frac{5005}{1174136684544}\,{c_4}^6c_6)z^{30} + (-\frac{5005}{1337415006738 4}\,{c_6}^4c_4 + \frac{5005}{4403012567 04}\,{c_4}^4{c_6}^2 - \frac{143}{24461180928}\,{c_4}^7)z^{28} + (-\frac{5}{27648}\,{c_4}^3 + \frac{5}{248832}\,{c_6}^2)z^{12} + (-\frac{85085}{4279728215162 88}\,{c_4}^4{c_6}^3 + \frac{1547}{4814694242058 24}\,{c_6}^5c_4 + \frac{12155}{3170169048268 8}\,{c_4}^7{c_6})z^{34} - \frac{35}{663552}\,{c_4}^2{c_6}z^{14} + \frac{5}{10368}\,c_4{c_6}z^{10}$$

The logarithm $\log_C(x)$ equals

$$x - \frac{1}{120}\,c_4x^5 - \frac{1}{2016}\,c_6x^7 + \frac{1}{3456}\,{c_4}^2x^9 + \frac{5}{114048}\,c_4c_6x^{11} + (-\frac{5}{359424}\,{c_4}^3 + \frac{5}{3234816}\,{c_6}^2)x^{13} - \frac{7}{1990656}\,{c_4}^2c_6x^{15} + (\frac{35}{45121536}\,{c_4}^4 - \frac{7}{25380864}\,c_4{c_6}^2)x^{17} + (\frac{7}{25214976}\,{c_4}^3c_6 - \frac{7}{1021206528}\,{c_6}^3)x^{19} + (-\frac{1}{21233664}\,{c_4}^5 + \frac{5}{143327232}\,{c_6}^2{c_4}^2)x^{21} + (-\frac{385}{17581473792}\,{c_4}^4c_6 + \frac{55}{29668737024}\,c_4{c_6}^3)x^{23} + (\frac{77}{25480396800}\,{c_4}^6 - \frac{11}{2866544640}\,{c_4}^3{c_6}^2 + \frac{11}{309586821120}\,{c_6}^4)x^{25} + (\frac{143}{82556485632}\,{c_4}^5c_6 - \frac{715}{2229025112064}\,{c_6}^3{c_4}^2)x^{27} + (-\frac{5005}{387850369499136}\,{c_6}^4c_4 + \frac{5005}{127687364444 16}\,{c_4}^4{c_6}^2 - \frac{143}{709374246912}\,{c_4}^7)x^{29} + (-\frac{1001}{4975184050126848}\,{c_6}^5 + \frac{25025}{5527982277918 72}\,{c_6}^3{c_4}^3 - \frac{5005}{3639823722086 4}\,{c_4}^6c_6)x^{31} + (\frac{455}{160489808068608}\,{c_6}^4{c_4}^2 - \frac{455}{11888133931008}\,{c_6}^2{c_4}^5 + \frac{65}{4696546738176}\,{c_4}^8)x^{33} + (-\frac{2431}{427972821516288}\,{c_4}^4{c_6}^3 + \frac{221}{2407347121029120}\,{c_6}^5c_4 + \frac{2431}{2219118333788 16}\,{c_4}^7{c_6})x^{35} + (\frac{1547}{1282634546084315136}\,{c_6}^6 - \frac{7735}{1583499439610265 6}\,{c_4}^3{c_6}^4 + \frac{17017}{4691850191437824}\,{c_4}^6{c_6}^2 - \frac{12155}{1251160051050086 4}\,{c_4}^9)x^{37} + (-\frac{2261}{9244212944751820 8}\,{c_4}^2{c_6}^5 + \frac{2261}{3423782572130304}\,{c_4}^5{c_6}^3 - \frac{3553}{4057816381784064}\,{c_4}^8c_6)x^{39} + (\frac{46189}{6654818866125864 96}\,{c_4}^{10} + \frac{734825}{1010700615292865 7408}\,{c_6}^4{c_4}^4 - \frac{20995}{6238892686992998 4}\,{c_4}^7{c_6}^2 - \frac{11305}{1705557288306710 9376}\,{c_6}^6c_4)x^{41} + (\frac{79135}{1590004626497313 1776}\,{c_6}^5{c_4}^3 - \frac{1615}{2146506245771372 78976}\,{c_6}^7 - \frac{1028755}{1413337445775389 4912}\,{c_6}^3{c_4}^6 + \frac{146965}{2093833253000577024}\,{c_4}^9c_6)x^{43} + (\frac{24871}{1198049997639835 97568}\,{c_6}^6{c_4}^2 - \frac{174097}{1774888885392349 5936}\,{c_4}^5{c_6}^4 + \frac{323323}{1051786006158429 3888}\,{c_4}^8{c_6}^2 - \frac{29393}{5843255589769052160}\,{c_4}^{11})x^{45} + (\frac{81719}{1689250496672168725 7088}\,{c_6}^7c_4 - \frac{2860165}{3336791104537617235968}\,{c_6}^5{c_4}^4 + \frac{2860165}{3707545671708463595 52}\,{c_4}^7{c_6}^3 - \frac{7436429}{1318238461051898167296}\,{c_4}^{10}c_6)x^{47} + (-\frac{81719}{1677269996695770365952}\,{c_4}^3{c_6}^6 + \frac{96577}{2617778504216535367 68}\,{c_4}^{12} + \frac{408595}{3313125919399905257472}\,{c_4}^6{c_6}^4 - \frac{408595}{1472500408621801 4432}\,{c_6}^2{c_4}^9 + \frac{81719}{1690688156669336528879616}\,{c_6}^8)x^{49} + (-\frac{120175}{6900767986405455219 9168}\,{c_6}^7{c_4}^2 + \frac{168245}{1277919997482491707392}\,{c_6}^5{c_4}^5 + \frac{76475}{1682857609853487022 08}\,{c_4}^{11}c_6 - \frac{600875}{7572859244340691599 36}\,{c_6}^3{c_4}^8)x^{51} +$$

$$(\frac{132793375}{1444901543820203957157888}\,{c_4}^7{c_6}^4 - \frac{58429085}{3210892319600453238 12864}\,{c_4}^{10}{c_6}^2 - \frac{10935925}{2167352315730305935736832}\,{c_4}^4{c_6}^6 + \frac{1562275}{9874998988546206419 7009408}\,c_4{c_6}^8 + \frac{185725}{7928129184198649970688}\,{c_4}^{13})x^{53}$$

The formal group law $F_C(x,y)$ over $\mathbb{Z}[\frac{1}{6}, c_4, c_6]$ equals

$$x + y$$
$$+1/24\,c_4x^4y + 1/12\,c_4x^3y^2 + 1/12\,c_4x^2y^3 + 1/24\,c_4xy^4$$
$$+\frac{1}{288}\,c_6x^6y + \frac{1}{96}\,c_6x^5y^2 + \frac{5}{288}\,c_6x^4y^3 + \frac{5}{288}\,c_6x^3y^4 + \frac{1}{96}\,c_6x^2y^5 + \frac{1}{288}\,c_6xy^6$$
$$-\frac{1}{1152}\,{c_4}^2x^8y + \frac{1}{288}\,{c_4}^2x^6y^3 + \frac{1}{144}\,{c_4}^2x^5y^4 + \frac{1}{144}\,{c_4}^2x^4y^5 + \frac{1}{288}\,{c_4}^2x^3y^6 - \frac{1}{1152}\,{c_4}^2xy^8$$
$$-\frac{1}{5184}\,c_4c_6x^{10}y - \frac{5}{20736}\,c_4c_6x^9y^2 + \frac{1}{3456}\,c_4c_6x^8y^3 + \frac{5}{3456}\,c_4c_6x^7y^4 + \frac{17}{6912}\,c_6c_4x^6y^5 + \frac{17}{6912}\,c_6c_4x^5y^6 + \frac{5}{3456}\,c_4c_6x^4y^7 + \frac{1}{3456}\,c_4c_6x^3y^8 - \frac{5}{20736}\,c_4c_6x^2y^9 - \frac{1}{5184}\,c_4c_6xy^{10}$$
$$-\frac{1}{124416}\,{c_6}^2x^{12}y + \frac{1}{27648}\,{c_4}^3x^{12}y - \frac{1}{82944}\,{c_6}^2x^{11}y^2 + \frac{1}{62208}\,{c_6}^2x^{10}y^3 - \frac{1}{13824}\,{c_4}^3x^{10}y^3 + \frac{25}{248832}\,{c_6}^2x^9y^4 + \frac{1}{4608}\,{c_6}^2x^8y^5 + \frac{1}{3456}\,{c_4}^3x^8y^5 + \frac{25}{82944}\,{c_6}^2x^7y^6 + \frac{1}{1728}\,{c_4}^3x^7y^6 + \frac{25}{82944}\,{c_6}^2x^6y^7 + \frac{1}{1728}\,{c_4}^3x^6y^7 + \frac{1}{3456}\,{c_4}^3x^5y^8 + \frac{1}{4608}\,{c_6}^2x^5y^8 + \frac{25}{248832}\,{c_6}^2x^4y^9 - \frac{1}{13824}\,{c_4}^3x^3y^{10} + \frac{1}{62208}\,{c_6}^2x^3y^{10} - \frac{1}{82944}\,{c_6}^2x^2y^{11} - \frac{1}{124416}\,{c_6}^2xy^{12} + \frac{1}{27648}\,{c_4}^3xy^{12}$$
$$+\frac{25}{1990656}\,{c_4}^2c_6x^{14}y + \frac{7}{663552}\,{c_4}^2c_6x^{13}y^2 - \frac{31}{1990656}\,{c_4}^2c_6x^{12}y^3 - \frac{55}{1990656}\,{c_4}^2c_6x^{11}y^4 + \frac{77}{1990656}\,{c_4}^2c_6x^{10}y^5 + \frac{365}{1990656}\,{c_4}^2c_6x^9y^6 + \frac{205}{663552}\,{c_4}^2c_6x^8y^7 + \frac{205}{663552}\,{c_4}^2c_6x^7y^8 + \frac{365}{1990656}\,{c_4}^2c_6x^6y^9 + \frac{77}{1990656}\,{c_4}^2c_6x^5y^{10} - \frac{55}{1990656}\,{c_4}^2c_6x^4y^{11} - \frac{31}{1990656}\,{c_4}^2c_6x^3y^{12} + \frac{7}{663552}\,{c_4}^2c_6x^2y^{13} + \frac{25}{1990656}\,{c_4}^2c_6xy^{14}$$
$$-\frac{5}{2654208}\,{c_4}^4x^{16}y + \frac{7}{5971968}\,c_4{c_6}^2x^{16}y + \frac{1}{746496}\,c_4{c_6}^2x^{15}y^2 - \frac{5}{2985984}\,c_4{c_6}^2x^{14}y^3 + \frac{1}{331776}\,{c_4}^4x^{14}y^3 - \frac{35}{5971968}\,c_4{c_6}^2x^{13}y^4 - \frac{1}{165888}\,{c_4}^4x^{12}y^5 - \frac{1}{373248}\,c_4{c_6}^2x^{12}y^5 + \frac{11}{746496}\,c_4{c_6}^2x^{11}y^6 + \frac{31}{746496}\,c_4{c_6}^2x^{10}y^7 + \frac{1}{41472}\,{c_4}^4x^{10}y^7 + \frac{1}{20736}\,{c_4}^4x^9y^8 + \frac{185}{2985984}\,c_4{c_6}^2x^9y^8 + \frac{1}{20736}\,{c_4}^4x^8y^9 + \frac{185}{2985984}\,c_4{c_6}^2x^8y^9 + \frac{31}{746496}\,c_4{c_6}^2x^7y^{10} + \frac{1}{41472}\,{c_4}^4x^7y^{10} + \frac{11}{746496}\,c_4{c_6}^2x^6y^{11} - \frac{1}{165888}\,{c_4}^4x^5y^{12} - \frac{1}{373248}\,c_4{c_6}^2x^5y^{12} - \frac{35}{5971968}\,c_4{c_6}^2x^4y^{13} - \frac{5}{2985984}\,c_4{c_6}^2x^3y^{14} + \frac{1}{331776}\,{c_4}^4x^3y^{14} + \frac{1}{746496}\,c_4{c_6}^2x^2y^{15} + \frac{7}{5971968}\,c_4{c_6}^2xy^{16} - \frac{5}{2654208}\,{c_4}^4xy^{16}$$
$$+\frac{7}{214990848}\,{c_6}^3x^{18}y - \frac{7}{7962624}\,{c_4}^3c_6x^{18}y - \frac{1}{1769472}\,{c_4}^3c_6x^{17}y^2 + \frac{1}{23887872}\,{c_6}^3x^{17}y^2 + \frac{1}{995328}\,{c_4}^3c_6x^{16}y^3 - \frac{1}{17915904}\,{c_6}^3x^{16}y^3 + \frac{13}{11943936}\,{c_4}^3c_6x^{15}y^4 - \frac{1}{4478976}\,{c_6}^3x^{15}y^4 - \frac{1}{7962624}\,{c_6}^3x^{14}y^5 - \frac{95}{47775744}\,{c_4}^3c_6x^{14}y^5 + \frac{49}{71663616}\,{c_6}^3x^{13}y^6 - \frac{175}{47775744}\,{c_4}^3c_6x^{13}y^6 + \frac{83}{35831808}\,{c_6}^3x^{12}y^7 + \frac{167}{47775744}\,{c_4}^3c_6x^{12}y^7 + \frac{17}{3981312}\,{c_6}^3x^{11}y^8 + \frac{935}{47775744}\,{c_4}^3c_6x^{11}y^8 + \frac{151}{26873856}\,{c_6}^3x^{10}y^9 + \frac{535}{15925248}\,{c_4}^3c_6x^{10}y^9 + \frac{151}{26873856}\,{c_6}^3x^9y^{10} + \frac{535}{15925248}\,{c_4}^3c_6x^9y^{10} + \frac{17}{3981312}\,{c_6}^3x^8y^{11} + \frac{935}{47775744}\,{c_4}^3c_6x^8y^{11} + \frac{167}{47775744}\,{c_4}^3c_6x^7y^{12} + \frac{83}{35831808}\,{c_6}^3x^7y^{12} - \frac{175}{47775744}\,{c_4}^3c_6x^6y^{13} + \frac{49}{71663616}\,{c_6}^3x^6y^{13} - \frac{1}{7962624}\,{c_6}^3x^5y^{14} - \frac{95}{47775744}\,{c_4}^3c_6x^5y^{14} - \frac{1}{4478976}\,{c_6}^3x^4y^{15} + \frac{13}{11943936}\,{c_4}^3c_6x^4y^{15} + \frac{1}{995328}\,{c_4}^3c_6x^3y^{16} - \frac{1}{17915904}\,{c_6}^3x^3y^{16} - \frac{1}{1769472}\,{c_4}^3c_6x^2y^{17} + \frac{1}{23887872}\,{c_6}^3x^2y^{17} - \frac{7}{7962624}\,{c_4}^3c_6xy^{18} + \frac{7}{214990848}\,{c_6}^3xy^{18}$$
$$+\frac{7}{63700992}\,{c_4}^5x^{20}y - \frac{7}{53747712}\,{c_6}^2{c_4}^2x^{20}y - \frac{35}{286654464}\,{c_6}^2{c_4}^2x^{19}y^2 - \frac{5}{31850496}\,{c_4}^5x^{18}y^3 + \frac{17}{107495424}\,{c_6}^2{c_4}^2x^{18}y^3 + \frac{55}{143327232}\,{c_6}^2{c_4}^2x^{17}y^4 - \frac{1}{71663616}\,{c_6}^2{c_4}^2x^{16}y^5 + \frac{1}{3981312}\,{c_4}^5x^{16}y^5 - \frac{37}{47775744}\,{c_6}^2{c_4}^2x^{15}y^6 - \frac{1}{1990656}\,{c_4}^5x^{14}y^7 - \frac{263}{573308928}\,{c_6}^2{c_4}^2x^{14}y^7 + \frac{1267}{573308928}\,{c_6}^2{c_4}^2x^{13}y^8 + \frac{1}{497664}\,{c_4}^5x^{12}y^9 + \frac{11291}{1719926784}\,{c_6}^2{c_4}^2x^{12}y^9 + \frac{17143}{1719926784}\,{c_6}^2{c_4}^2x^{11}y^{10} + \frac{1}{248832}\,{c_4}^5x^{11}y^{10} + \frac{1}{248832}\,{c_4}^5x^{10}y^{11} + \frac{17143}{1719926784}\,{c_6}^2{c_4}^2x^{10}y^{11} + \frac{1}{497664}\,{c_4}^5x^9y^{12} + \frac{11291}{1719926784}\,{c_6}^2{c_4}^2x^9y^{12} + \frac{1267}{573308928}\,{c_6}^2{c_4}^2x^8y^{13} - \frac{1}{1990656}\,{c_4}^5x^7y^{14} - \frac{263}{573308928}\,{c_6}^2{c_4}^2x^7y^{14} - \frac{37}{47775744}\,{c_6}^2{c_4}^2x^6y^{15} - \frac{1}{71663616}\,{c_6}^2{c_4}^2x^5y^{16} + \frac{1}{3981312}\,{c_4}^5x^5y^{16} + \frac{55}{143327232}\,{c_6}^2{c_4}^2x^4y^{17} - \frac{5}{31850496}\,{c_4}^5x^3y^{18} + \frac{17}{107495424}\,{c_6}^2{c_4}^2x^3y^{18} - \frac{35}{286654464}\,{c_6}^2{c_4}^2x^2y^{19} + \frac{7}{63700992}\,{c_4}^5xy^{20} - \frac{7}{53747712}\,{c_6}^2{c_4}^2xy^{20}$$

$$+\tfrac{49}{764411904}\,{c_4}^4c_6x^{22}y-\tfrac{5}{644972544}\,c_4{c_6}^3x^{22}y-\tfrac{11}{1289945088}\,c_4{c_6}^3x^{21}y^2+\tfrac{77}{2293235712}\,{c_4}^4c_6x^{21}y^2-$$
$$\tfrac{161}{2293235712}\,{c_4}^4c_6x^{20}y^3+\tfrac{7}{644972544}\,c_4{c_6}^3x^{20}y^3+\tfrac{175}{5159780352}\,c_4{c_6}^3x^{19}y^4-\tfrac{125}{2293235712}\,{c_4}^4c_6x^{19}y^4+$$
$$\tfrac{281}{2293235712}\,{c_4}^4c_6x^{18}y^5+\tfrac{47}{5159780352}\,c_4{c_6}^3x^{18}y^5+\tfrac{115}{764411904}\,{c_4}^4c_6x^{17}y^6-\tfrac{65}{859963392}\,c_4{c_6}^3x^{17}y^6-$$
$$\tfrac{209}{1719926784}\,c_4{c_6}^3x^{16}y^7-\tfrac{65}{382205952}\,{c_4}^4c_6x^{16}y^7-\tfrac{419}{1146617856}\,{c_4}^4c_6x^{15}y^8+\tfrac{31}{859963392}\,c_4{c_6}^3x^{15}y^8+$$
$$\tfrac{2443}{5159780352}\,c_4{c_6}^3x^{14}y^9+\tfrac{829}{2293235712}\,{c_4}^4c_6x^{14}y^9+\tfrac{4669}{2293235712}\,{c_4}^4c_6x^{13}y^{10}+\tfrac{679}{644972544}\,c_4{c_6}^3x^{13}y^{10}+$$
$$\tfrac{3791}{2579890176}\,c_4{c_6}^3x^{12}y^{11}+\tfrac{8041}{2293235712}\,{c_4}^4c_6x^{12}y^{11}+\tfrac{8041}{2293235712}\,{c_4}^4c_6x^{11}y^{12}+\tfrac{3791}{2579890176}\,c_4{c_6}^3x^{11}y^{12}+$$
$$\tfrac{4669}{2293235712}\,{c_4}^4c_6x^{10}y^{13}+\tfrac{679}{644972544}\,c_4{c_6}^3x^{10}y^{13}+\tfrac{829}{2293235712}\,{c_4}^4c_6x^9y^{14}+\tfrac{2443}{5159780352}\,c_4{c_6}^3x^9y^{14}-$$
$$\tfrac{419}{1146617856}\,{c_4}^4c_6x^8y^{15}+\tfrac{31}{859963392}\,c_4{c_6}^3x^8y^{15}-\tfrac{209}{1719926784}\,c_4{c_6}^3x^7y^{16}-\tfrac{65}{382205952}\,{c_4}^4c_6x^7y^{16}+$$
$$\tfrac{115}{764411904}\,{c_4}^4c_6x^6y^{17}-\tfrac{65}{859963392}\,c_4{c_6}^3x^6y^{17}+\tfrac{281}{2293235712}\,{c_4}^4c_6x^5y^{18}+\tfrac{47}{5159780352}\,c_4{c_6}^3x^5y^{18}+$$
$$\tfrac{175}{5159780352}\,c_4{c_6}^3x^4y^{19}-\tfrac{125}{2293235712}\,{c_4}^4c_6x^4y^{19}-\tfrac{161}{2293235712}\,{c_4}^4c_6x^3y^{20}+\tfrac{7}{644972544}\,c_4{c_6}^3x^3y^{20}-$$
$$\tfrac{11}{1289945088}\,c_4{c_6}^3x^2y^{21}+\tfrac{77}{2293235712}\,{c_4}^4c_6x^2y^{21}+\tfrac{49}{764411904}\,{c_4}^4c_6xy^{22}-\tfrac{5}{644972544}\,c_4{c_6}^3xy^{22}$$

$$-\tfrac{5}{309586821 12}\,{c_6}^4x^{24}y-\tfrac{7}{1019215872}\,{c_4}^6x^{24}y+\tfrac{5}{382205952}\,{c_4}^3{c_6}^2x^{24}y+\tfrac{1}{95551488}\,{c_4}^3{c_6}^2x^{23}y^2-$$
$$\tfrac{1}{5159780352}\,{c_6}^4x^{23}y^2+\tfrac{1}{3869835264}\,{c_6}^4x^{22}y^3+\tfrac{7}{764411904}\,{c_4}^6x^{22}y^3-\tfrac{25}{1719926784}\,{c_4}^3{c_6}^2x^{22}y^3+\tfrac{55}{61917364224}\,{c_6}^4x^{21}y^4-$$
$$\tfrac{275}{10319560704}\,{c_4}^3{c_6}^2x^{21}y^4+\tfrac{25}{2579890176}\,{c_4}^3{c_6}^2x^{20}y^5-\tfrac{5}{382205952}\,{c_4}^6x^{20}y^5+\tfrac{1}{3439853568}\,{c_6}^4x^{20}y^5-$$
$$\tfrac{35}{15479341056}\,{c_6}^4x^{19}y^6+\tfrac{1015}{20639121408}\,{c_4}^3{c_6}^2x^{19}y^6-\tfrac{257}{61917364224}\,{c_6}^4x^{18}y^7+\tfrac{49}{20639121408}\,{c_4}^3{c_6}^2x^{18}y^7+$$
$$\tfrac{1}{47775744}\,{c_4}^6x^{18}y^7-\tfrac{745}{6879707136}\,{c_4}^3{c_6}^2x^{17}y^8+\tfrac{1}{1146617856}\,{c_6}^4x^{17}y^8-\tfrac{293}{3439853568}\,{c_4}^3{c_6}^2x^{16}y^9+$$
$$\tfrac{73}{3869835264}\,{c_6}^4x^{16}y^9-\tfrac{1}{23887872}\,{c_4}^6x^{16}y^9+\tfrac{769}{15479341056}\,{c_6}^4x^{15}y^{10}+\tfrac{2717}{10319560704}\,{c_4}^3{c_6}^2x^{15}y^{10}+$$
$$\tfrac{8861}{10319560704}\,{c_4}^3{c_6}^2x^{14}y^{11}+\tfrac{577}{6879707136}\,{c_6}^4x^{14}y^{11}+\tfrac{1}{5971968}\,{c_4}^6x^{14}y^{11}+\tfrac{1}{2985984}\,{c_4}^6x^{13}y^{12}+$$
$$\tfrac{3299}{30958682112}\,{c_6}^4x^{13}y^{12}+\tfrac{27493}{20639121408}\,{c_4}^3{c_6}^2x^{13}y^{12}+\tfrac{3299}{30958682112}\,{c_6}^4x^{12}y^{13}+\tfrac{27493}{20639121408}\,{c_4}^3{c_6}^2x^{12}y^{13}+$$
$$\tfrac{1}{2985984}\,{c_4}^6x^{12}y^{13}+\tfrac{1}{5971968}\,{c_4}^6x^{11}y^{14}+\tfrac{577}{6879707136}\,{c_6}^4x^{11}y^{14}+\tfrac{8861}{10319560704}\,{c_4}^3{c_6}^2x^{11}y^{14}+$$
$$\tfrac{2717}{10319560704}\,{c_4}^3{c_6}^2x^{10}y^{15}+\tfrac{769}{15479341056}\,{c_6}^4x^{10}y^{15}+\tfrac{73}{3869835264}\,{c_6}^4x^9y^{16}-\tfrac{1}{23887872}\,{c_4}^6x^9y^{16}-$$
$$\tfrac{293}{3439853568}\,{c_4}^3{c_6}^2x^9y^{16}-\tfrac{745}{6879707136}\,{c_4}^3{c_6}^2x^8y^{17}+\tfrac{1}{1146617856}\,{c_6}^4x^8y^{17}+\tfrac{49}{20639121408}\,{c_4}^3{c_6}^2x^7y^{18}+$$
$$\tfrac{1}{47775744}\,{c_4}^6x^7y^{18}-\tfrac{257}{61917364224}\,{c_6}^4x^7y^{18}+\tfrac{1015}{20639121408}\,{c_4}^3{c_6}^2x^6y^{19}-\tfrac{35}{15479341056}\,{c_6}^4x^6y^{19}-$$
$$\tfrac{5}{382205952}\,{c_4}^6x^5y^{20}+\tfrac{1}{3439853568}\,{c_6}^4x^5y^{20}+\tfrac{25}{2579890176}\,{c_4}^3{c_6}^2x^5y^{20}-\tfrac{275}{10319560704}\,{c_4}^3{c_6}^2x^4y^{21}+$$
$$\tfrac{55}{61917364224}\,{c_6}^4x^4y^{21}-\tfrac{25}{1719926784}\,{c_4}^3{c_6}^2x^3y^{22}+\tfrac{1}{3869835264}\,{c_6}^4x^3y^{22}+\tfrac{7}{764411904}\,{c_4}^6x^3y^{22}+$$
$$\tfrac{1}{95551488}\,{c_4}^3{c_6}^2x^2y^{23}-\tfrac{1}{5159780352}\,{c_6}^4x^2y^{23}+\tfrac{5}{382205952}\,{c_4}^3{c_6}^2xy^{24}-\tfrac{5}{309586821 12}\,{c_6}^4xy^{24}-\tfrac{7}{1019215872}\,{c_4}^6xy^{24}$$

The formal group law $F_C(x,y)$ over $\mathbb{Z}/(5)[c_4,c_6]$ equals

$$x+y$$
$$+4\,c_4x^4y+3\,c_4x^3y^2+3\,c_4x^2y^3+4\,c_4xy^4$$
$$+2\,c_6x^6y+c_6x^5y^2+c_6x^2y^5+2\,c_6xy^6$$
$$+2\,{c_4}^2x^8y+2\,{c_4}^2x^6y^3+4\,{c_4}^2x^5y^4+4\,{c_4}^2x^4y^5+2\,{c_4}^2x^3y^6+2\,{c_4}^2xy^8$$
$$+c_4c_6x^{10}y+c_4c_6x^8y^3+c_6c_4x^6y^5+c_6c_4x^5y^6+c_4c_6x^3y^8+c_4c_6xy^{10}$$
$$+4\,{c_6}^2x^{12}y+2\,{c_4}^3x^{12}y+{c_6}^2x^{11}y^2+{c_4}^3x^{10}y^3+2\,{c_6}^2x^{10}y^3+{c_4}^3x^8y^5+2\,{c_6}^2x^8y^5+2\,{c_4}^3x^7y^6+$$
$$2\,{c_4}^3x^6y^7+{c_4}^3x^5y^8+2\,{c_6}^2x^5y^8+2\,{c_6}^2x^3y^{10}+{c_4}^3x^3y^{10}+{c_6}^2x^2y^{11}+2\,{c_4}^3xy^{12}+4\,{c_6}^2xy^{12}$$
$$+{c_4}^2c_6x^{13}y^2+4\,{c_4}^2c_6x^{12}y^3+2\,{c_4}^2c_6x^{10}y^5+2\,{c_4}^2c_6x^5y^{10}+4\,{c_4}^2c_6x^3y^{12}+{c_4}^2c_6x^2y^{13}$$
$$+4\,c_4{c_6}^2x^{16}y+c_4{c_6}^2x^{15}y^2+{c_4}^4x^{14}y^3+3\,c_4{c_6}^2x^{12}y^5+3\,{c_4}^4x^{12}y^5+c_4{c_6}^2x^{11}y^6+3\,{c_4}^4x^{10}y^7+$$
$$c_4{c_6}^2x^{10}y^7+{c_4}^4x^9y^8+{c_4}^4x^8y^9+c_4{c_6}^2x^7y^{10}+3\,{c_4}^4x^7y^{10}+c_4{c_6}^2x^6y^{11}+3\,{c_4}^4x^5y^{12}+3\,c_4{c_6}^2x^5y^{12}+$$
$$+{c_4}^4x^3y^{14}+c_4{c_6}^2x^2y^{15}+4\,c_4{c_6}^2xy^{16}$$

$$+4\,{c_6}^3x^{18}y+2\,{c_4}^3c_6x^{18}y+2\,{c_4}^3c_6x^{17}y^2+3\,{c_6}^3x^{17}y^2+{c_6}^3x^{16}y^3+2\,{c_4}^3c_6x^{16}y^3+3\,{c_4}^3c_6x^{15}y^4+$$
$$4\,{c_6}^3x^{15}y^4+{c_6}^3x^{14}y^5+4\,{c_6}^3x^{13}y^6+3\,{c_4}^3c_6x^{12}y^7+{c_6}^3x^{12}y^7+{c_6}^3x^{11}y^8+{c_6}^3x^{10}y^9+{c_6}^3x^9y^{10}+$$
$$c_6{}^3x^8y^{11}+3\,{c_4}^3c_6x^7y^{12}+{c_6}^3x^7y^{12}+4\,{c_6}^3x^6y^{13}+{c_6}^3x^5y^{14}+3\,{c_4}^3c_6x^4y^{15}+4\,{c_6}^3x^4y^{15}+$$
$$2\,{c_4}^3c_6x^3y^{16}+{c_6}^3x^3y^{16}+2\,{c_4}^3c_6x^2y^{17}+3\,{c_6}^3x^2y^{17}+2\,{c_4}^3c_6xy^{18}+4\,{c_6}^3xy^{18}$$

$$+4\,{c_6}^2{c_4}^2x^{20}y+{c_4}^5x^{20}y+3\,{c_6}^2{c_4}^2x^{18}y^3+4\,{c_6}^2{c_4}^2x^{16}y^5+3\,{c_4}^5x^{16}y^5+2\,{c_6}^2{c_4}^2x^{15}y^6+4\,{c_6}^2{c_4}^2x^{14}y^7+$$
$$4\,{c_4}^5x^{14}y^7+4\,{c_6}^2{c_4}^2x^{13}y^8+4\,{c_4}^5x^{12}y^9+4\,{c_6}^2{c_4}^2x^{12}y^9+3\,{c_4}^5x^{11}y^{10}+2\,{c_6}^2{c_4}^2x^{11}y^{10}+3\,{c_4}^5x^{10}y^{11}+$$
$$2\,{c_6}^2{c_4}^2x^{10}y^{11}+4\,{c_4}^5x^9y^{12}+4\,{c_6}^2{c_4}^2x^9y^{12}+4\,{c_6}^2{c_4}^2x^8y^{13}+4\,{c_6}^2{c_4}^2x^7y^{14}+4\,{c_4}^5x^7y^{14}+$$
$$2\,{c_6}^2{c_4}^2x^6y^{15}+4\,{c_6}^2{c_4}^2x^5y^{16}+3\,{c_4}^5x^5y^{16}+3\,{c_6}^2{c_4}^2x^3y^{18}+{c_4}^5xy^{20}+4\,{c_6}^2{c_4}^2xy^{20}$$

$$+{c_4}^4c_6x^{22}y+{c_4}^4c_6x^{21}y^2+3\,c_4{c_6}^3x^{21}y^2+2\,{c_4}^4c_6x^{20}y^3+3\,c_4{c_6}^3x^{20}y^3+3\,{c_4}^4c_6x^{18}y^5+c_4{c_6}^3x^{18}y^5+$$
$$4\,c_4{c_6}^3x^{16}y^7+3\,c_4{c_6}^3x^{15}y^8+{c_4}^4c_6x^{15}y^8+4\,c_4{c_6}^3x^{14}y^9+2\,{c_4}^4c_6x^{14}y^9+c_4{c_6}^3x^{13}y^{10}+2\,{c_4}^4c_6x^{13}y^{10}+$$
$$3\,{c_4}^4c_6x^{12}y^{11}+c_4{c_6}^3x^{12}y^{11}+3\,{c_4}^4c_6x^{11}y^{12}+c_4{c_6}^3x^{11}y^{12}+c_4{c_6}^3x^{10}y^{13}+2\,{c_4}^4c_6x^{10}y^{13}+$$
$$4\,c_4{c_6}^3x^9y^{14}+2\,{c_4}^4c_6x^9y^{14}+{c_4}^4c_6x^8y^{15}+3\,c_4{c_6}^3x^8y^{15}+4\,c_4{c_6}^3x^7y^{16}+c_4{c_6}^3x^5y^{18}+3\,{c_4}^4c_6x^5y^{18}+$$
$$2\,{c_4}^4c_6x^3y^{20}+3\,c_4{c_6}^3x^3y^{20}+{c_4}^4c_6x^2y^{21}+3\,c_4{c_6}^3x^2y^{21}+{c_4}^4c_6xy^{22}$$

$$4\,{c_4}^6x^{24}y+2\,{c_4}^3{c_6}^2x^{23}y^2+2\,{c_6}^4x^{23}y^2+4\,{c_6}^4x^{22}y^3+3\,{c_4}^6x^{22}y^3+2\,{c_6}^4x^{20}y^5+2\,{c_6}^4x^{18}y^7+$$
$$4\,{c_4}^6x^{18}y^7+3\,{c_4}^3{c_6}^2x^{18}y^7+{c_6}^4x^{17}y^8+4\,{c_4}^3{c_6}^2x^{16}y^9+2\,{c_4}^6x^{16}y^9+2\,{c_6}^4x^{16}y^9+4\,{c_6}^4x^{15}y^{10}+$$
$$3\,{c_4}^3{c_6}^2x^{15}y^{10}+4\,{c_4}^3{c_6}^2x^{14}y^{11}+2\,{c_6}^4x^{14}y^{11}+2\,{c_4}^6x^{14}y^{11}+4\,{c_4}^6x^{13}y^{12}+{c_4}^3{c_6}^2x^{13}y^{12}+$$
$$2\,{c_6}^4x^{13}y^{12}+2\,{c_6}^4x^{12}y^{13}+4\,{c_4}^6x^{12}y^{13}+{c_4}^3{c_6}^2x^{12}y^{13}+2\,{c_4}^6x^{11}y^{14}+4\,{c_4}^3{c_6}^2x^{11}y^{14}+2\,{c_6}^4x^{11}y^{14}+$$
$$4\,{c_6}^4x^{10}y^{15}+3\,{c_4}^3{c_6}^2x^{10}y^{15}+2\,{c_6}^4x^9y^{16}+2\,{c_4}^6x^9y^{16}+4\,{c_4}^3{c_6}^2x^9y^{16}+{c_6}^4x^8y^{17}+3\,{c_4}^3{c_6}^2x^7y^{18}+$$
$$4\,{c_4}^6x^7y^{18}+2\,{c_6}^4x^7y^{18}+2\,{c_6}^4x^5y^{20}+3\,{c_4}^6x^3y^{22}+4\,{c_6}^4x^3y^{22}+2\,{c_6}^4x^2y^{23}+2\,{c_4}^3{c_6}^2x^2y^{23}+4\,{c_4}^6xy^{24}$$

The formal group law $F_C(x,y)$ over $\mathbb{Z}/(7)[c_4,c_6]$ equals

$$x+y$$
$$+5\,c_4x^4y+3\,c_4x^3y^2+3\,c_4x^2y^3+5\,c_4xy^4$$
$$+c_6x^6y+3\,c_6x^5y^2+5\,c_6x^4y^3+5\,c_6x^3y^4+3\,c_6x^2y^5+c_6xy^6$$
$$+5\,{c_4}^2x^8y+{c_4}^2x^6y^3+2\,{c_4}^2x^5y^4+2\,{c_4}^2x^4y^5+{c_4}^2x^3y^6+5\,{c_4}^2xy^8$$
$$+5\,c_4c_6x^{10}y+c_4c_6x^9y^2+3\,c_4c_6x^8y^3+c_4c_6x^7y^4+c_6c_4x^6y^5+c_6c_4x^5y^6+c_4c_6x^4y^7+3\,c_4c_6x^3y^8+$$
$$c_4c_6x^2y^9+5\,c_4c_6xy^{10}$$
$$+3\,{c_4}^3x^{12}y+4\,{c_6}^2x^{12}y+6\,{c_6}^2x^{11}y^2+{c_4}^3x^{10}y^3+6\,{c_6}^2x^{10}y^3+6\,{c_6}^2x^9y^4+4\,{c_6}^2x^8y^5+3\,{c_4}^3x^8y^5+$$
$$4\,{c_6}^2x^7y^6+6\,{c_4}^3x^7y^6+6\,{c_4}^3x^6y^7+4\,{c_6}^2x^6y^7+3\,{c_4}^3x^5y^8+4\,{c_6}^2x^5y^8+6\,{c_6}^2x^4y^9+6\,{c_6}^2x^3y^{10}+$$
$$c_4{}^3x^3y^{10}+6\,{c_6}^2x^2y^{11}+4\,{c_6}^2xy^{12}+3\,{c_4}^3xy^{12}$$
$$+6\,{c_4}^2c_6x^{14}y+6\,{c_4}^2c_6x^{12}y^3+5\,{c_4}^2c_6x^{11}y^4+5\,{c_4}^2c_6x^9y^6+2\,{c_4}^2c_6x^8y^7+2\,{c_4}^2c_6x^7y^8+5\,{c_4}^2c_6x^6y^9+$$
$$5\,{c_4}^2c_6x^4y^{11}+6\,{c_4}^2c_6x^3y^{12}+6\,{c_4}^2c_6xy^{14}$$
$$+4\,{c_4}^4x^{16}y+4\,c_4{c_6}^2x^{15}y^2+2\,{c_4}^4x^{14}y^3+2\,c_4{c_6}^2x^{14}y^3+6\,c_4{c_6}^2x^{12}y^5+3\,{c_4}^4x^{12}y^5+2\,c_4{c_6}^2x^{11}y^6+$$
$$2\,{c_4}^4x^{10}y^7+5\,c_4{c_6}^2x^{10}y^7+3\,c_4{c_6}^2x^9y^8+4\,{c_4}^4x^9y^8+4\,{c_4}^4x^8y^9+3\,c_4{c_6}^2x^8y^9+5\,c_4{c_6}^2x^7y^{10}+2\,{c_4}^4x^7y^{10}+$$
$$2\,c_4{c_6}^2x^6y^{11}+6\,c_4{c_6}^2x^5y^{12}+3\,{c_4}^4x^5y^{12}+2\,{c_4}^4x^3y^{14}+2\,c_4{c_6}^2x^3y^{14}+4\,c_4{c_6}^2x^2y^{15}+4\,c_4{c_6}^4xy^{16}$$
$$+{c_6}^3x^{17}y^2+4\,{c_4}^3c_6x^{17}y^2+3\,{c_4}^3c_6x^{16}y^3+{c_6}^3x^{16}y^3+4\,{c_6}^3x^{15}y^4+5\,{c_4}^3c_6x^{15}y^4+4\,{c_6}^3x^{14}y^5+$$
$$5\,{c_4}^3c_6x^{14}y^5+3\,{c_4}^3c_6x^{12}y^7+4\,{c_6}^3x^{12}y^7+4\,{c_6}^3x^{11}y^8+2\,{c_4}^3c_6x^{11}y^8+{c_4}^3c_6x^{10}y^9+2\,{c_6}^3x^{10}y^9+$$
$$2\,{c_6}^3x^9y^{10}+{c_4}^3c_6x^9y^{10}+2\,{c_4}^3c_6x^8y^{11}+4\,{c_6}^3x^8y^{11}+4\,{c_6}^3x^7y^{12}+3\,{c_4}^3c_6x^7y^{12}+4\,{c_6}^3x^5y^{14}+$$
$$5\,{c_4}^3c_6x^5y^{14}+4\,{c_6}^3x^4y^{15}+5\,{c_4}^3c_6x^4y^{15}+{c_6}^3x^3y^{16}+3\,{c_4}^3c_6x^3y^{16}+{c_6}^3x^2y^{17}+4\,{c_4}^3c_6x^2y^{17}$$

$+5\,c_4{}^5x^{18}y^3+3\,c_6{}^2c_4{}^2x^{18}y^3+c_6{}^2c_4{}^2x^{17}y^4+2\,c_6{}^2c_4{}^2x^{16}y^5+6\,c_4{}^5x^{16}y^5+6\,c_6{}^2c_4{}^2x^{15}y^6+2\,c_4{}^5x^{14}y^7+c_6{}^2c_4{}^2x^{14}y^7+6\,c_4{}^5x^{12}y^9+5\,c_4{}^5x^{11}y^{10}+5\,c_4{}^5x^{10}y^{11}+6\,c_4{}^5x^9y^{12}+2\,c_4{}^5x^7y^{14}+c_6{}^2c_4{}^2x^7y^{14}+6\,c_6{}^2c_4{}^2x^6y^{15}+2\,c_6{}^2c_4{}^2x^5y^{16}+6\,c_4{}^5x^5y^{16}+c_6{}^2c_4{}^2x^4y^{17}+5\,c_4{}^5x^3y^{18}+3\,c_6{}^2c_4{}^2x^3y^{18}$

$+5\,c_4c_6{}^3x^{22}y+2\,c_4c_6{}^3x^{21}y^2+3\,c_4{}^4c_6x^{19}y^4+3\,c_4{}^4c_6x^{18}y^5+2\,c_4c_6{}^3x^{18}y^5+5\,c_4c_6{}^3x^{17}y^6+6\,c_4{}^4c_6x^{17}y^6+6\,c_4{}^4c_6x^{16}y^7+4\,c_4c_6{}^3x^{16}y^7+6\,c_4{}^4c_6x^{15}y^8+3\,c_4c_6{}^3x^{15}y^8+2\,c_4{}^4c_6x^{14}y^9+c_4{}^4c_6x^{12}y^{11}+6\,c_4c_6{}^3x^{12}y^{11}+c_4{}^4c_6x^{11}y^{12}+6\,c_4c_6{}^3x^{11}y^{12}+2\,c_4{}^4c_6x^9y^{14}+6\,c_4{}^4c_6x^8y^{15}+3\,c_4c_6{}^3x^8y^{15}+6\,c_4{}^4c_6x^7y^{16}+4\,c_4c_6{}^3x^7y^{16}+5\,c_4c_6{}^3x^6y^{17}+6\,c_4{}^4c_6x^6y^{17}+3\,c_4{}^4c_6x^5y^{18}+2\,c_4c_6{}^3x^5y^{18}+3\,c_4{}^4c_6x^4y^{19}+2\,c_4c_6{}^3x^2y^{21}+5\,c_4c_6{}^3xy^{22}$

$2\,c_6{}^4x^{24}y+6\,c_4{}^3c_6{}^2x^{24}y+2\,c_4{}^3c_6{}^2x^{23}y^2+c_6{}^4x^{23}y^2+c_6{}^4x^{22}y^3+5\,c_4{}^3c_6{}^2x^{22}y^3+c_4{}^3c_6{}^2x^{21}y^4+3\,c_6{}^4x^{21}y^4+2\,c_6{}^4x^{20}y^5+c_4{}^6x^{20}y^5+6\,c_4{}^3c_6{}^2x^{20}y^5+c_6{}^4x^{18}y^7+4\,c_4{}^6x^{18}y^7+4\,c_4{}^3c_6{}^2x^{17}y^8+6\,c_6{}^4x^{17}y^8+3\,c_6{}^4x^{16}y^9+2\,c_4{}^3c_6{}^2x^{16}y^9+6\,c_4{}^6x^{16}y^9+3\,c_4{}^3c_6{}^2x^{15}y^{10}+5\,c_6{}^4x^{15}y^{10}+4\,c_4{}^3c_6{}^2x^{14}y^{11}+3\,c_6{}^4x^{14}y^{11}+4\,c_4{}^6x^{14}y^{11}+2\,c_6{}^4x^{13}y^{12}+6\,c_4{}^3c_6{}^2x^{13}y^{12}+c_4{}^6x^{13}y^{12}+c_4{}^6x^{12}y^{13}+2\,c_6{}^4x^{12}y^{13}+6\,c_4{}^3c_6{}^2x^{12}y^{13}+3\,c_6{}^4x^{11}y^{14}+4\,c_4{}^3c_6{}^2x^{11}y^{14}+4\,c_4{}^6x^{11}y^{14}+3\,c_4{}^3c_6{}^2x^{10}y^{15}+5\,c_6{}^4x^{10}y^{15}+6\,c_4{}^6x^9y^{16}+3\,c_6{}^4x^9y^{16}+2\,c_4{}^3c_6{}^2x^9y^{16}+6\,c_6{}^4x^8y^{17}+4\,c_4{}^3c_6{}^2x^8y^{17}+c_6{}^4x^7y^{18}+4\,c_4{}^6x^7y^{18}+2\,c_6{}^4x^5y^{20}+6\,c_4{}^3c_6{}^2x^5y^{20}+c_4{}^6x^5y^{20}+3\,c_6{}^4x^4y^{21}+c_4{}^3c_6{}^2x^4y^{21}+5\,c_4{}^3c_6{}^2x^3y^{22}+c_6{}^4x^3y^{22}+c_6{}^4x^2y^{23}+2\,c_4{}^3c_6{}^2x^2y^{23}+6\,c_4{}^3c_6{}^2xy^{24}+2\,c_6{}^4xy^{24}$

Some values of the n-series for $F_C(x,y)$ over $\mathbb{Z}[\frac{1}{6},c_4,c_6]$ are:

$[5]_C(x) \mod 5 = c_4x^5+(3\,c_4{}^6+3\,c_4{}^3c_6{}^2+4\,c_6{}^4)x^{25}+O(x^{27})$

$[7]_C(x) \mod 7 = 6\,c_6x^7+(6\,c_6{}^5c_4+c_4{}^7c_6)x^{35}+(3\,c_4{}^3c_6{}^6+6\,c_4{}^{12}+5\,c_4{}^6c_6{}^4+c_6{}^2c_4{}^9+6\,c_6{}^8)x^{49}+O(x^{51})$

10.1. $F_C(x,y)$ **for the supersingular elliptic curve** $C: y^2+u_1uxy+u^3y=x^3$ **at** $p=2$ **over** $W(\mathbb{F}_4)[\![u_1]\!][u,\frac{1}{u}]$**.** This is the elliptic curve over $\mathbb{F}_4$ with Weierstrass parameters $\vec{a}=(a_1,a_2,a_3,a_4,a_6)=(u_1u,0,u^3,0,0)$. It is a lift of the supersingular elliptic curve $y^2+y=x^3$ over $P^2(\mathbb{F}_4)$ at the prime $p=2$.

```
> restart: with(powseries):
> m:=72:
> Order:=m:
> assign({a[1]=u[1]*u,a[2]=0,a[3]=u^3,a[4]=0,a[6]=0});
> z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3;
> simplify(mtaylor(subs(w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2
  +a[4]*z*w^2+a[6]*w^3, %),[z,w],m)); # O(4)
> simplify(mtaylor(subs(w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2
  +a[4]*z*w^2+a[6]*w^3, %),[z,w],m)); # O(5)
# repeat many times, until say O(75)
> simplify(mtaylor(subs(w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2
  +a[4]*z*w^2+a[6]*w^3, %),[z,w],m)); # O(75)
> # Let's "hard code" the result above as w(z)
> w:=z->1*z^3+u[1]*u*z^4+u[1]^2*u^2*z^5
  +(u[1]^3*u^3+u^3)*z^6+ (terms omitted)...:
> x:=z->z/w(z);
> simplify(series(x(z),z));
> y:=z->-1/w(z);
> simplify(series(y(z),z));
> # Let's calculate the invariant differential.
> simplify(series((diff( simplify(series(x(z),z)), z))
  / (2*y(z) + a[1]*x(z) + a[3]), z));
> # Let's "hard code" the result as eta_a(z)
> eta_a:=z->1+u[1]*u*z+u[1]^2*u^2*z^2
  +(2*u^3+u[1]^3*u^3)*z^3+(terms omitted)...;
> latex(%);
> f:=x->add(coeff(eta_a(x),x,i-1)*x^i/i,i=1..(m-1));
> latex(series(f(x),x,m));
> log_C:=powpoly(f(x),x);
> exp_C:=reversion(log_C);
> simplify(tpsform(exp_C,x,17));
> latex(%);
> e:=x->1*x+(-1/2*u[1]*u)*x^2+1/6*u[1]^2*u^2*x^3+...;
> F_C:=(x,y)->sort(simplify(mtaylor(e(f(x)+f(y)),
  [x,y],17)),[x,y]);
> F_C(x,y);
> latex(%);
> for n from 2 to 16 do print(n);
  latex(simplify(series(e(n*f(x)),x,17))); od;
```

The results of these computations are that the invariant differential $\eta_{\vec{d}}$ equals

$$1 + (u_1{}^7u^7 + 30\,u^7u_1{}^4 + 30\,u^7u_1)z^7 + u_1uz + (u_1{}^4u^4 + 6\,u_1u^4)z^4 + (2\,u^3 + u_1{}^3u^3)z^3 + (u_1{}^{48}u^{48} + 601080390\,u^{48} + 2162\,u_1{}^{45}u^{48} + 483168365316\,u_1{}^{33}u^{48} + 979110\,u_1{}^{42}u^{48} + 162901200\,u_1{}^{39}u^{48} + 10217700004512\,u^{48}u_1{}^{30} + 734359948476000\,u^{48}u_1{}^9 + 6203737080701160\,u^{48}u_1{}^{18} + 3031901580793800\,u^{48}u_1{}^{21} + 12406283890\,u_1{}^{36}u^{48} + 3384731762521200\,u^{48}u_1{}^{12} + 6605806165096320\,u^{48}u_1{}^{15} + 53952975806400\,u^{48}u_1{}^6 + 120944204135040\,u_1{}^{27}u^{48} + 808906548235500\,u^{48}u_1{}^{24} + 846321189120\,u^{48}u_1{}^3)z^{48} + (u_1{}^{11}u^{11} + 560\,u^{11}u_1{}^2 + 90\,u^{11}u_1{}^8 + 756\,u^{11}u_1{}^5)z^{11} + (u_1{}^{12}u^{12} + 70\,u^{12} + 110\,u_1{}^9u^{12} + 1680\,u^{12}u_1{}^3 + 1260\,u^{12}u_1{}^6)z^{12} + (u_1{}^8u^8 + 90\,u^8u_1{}^2 + 42\,u^8u_1{}^5)z^8 + (u_1{}^9u^9 + 20\,u^9 + 56\,u^9u_1{}^6 + 210\,u^9u_1{}^3)z^9 + (u_1{}^{10}u^{10} + 420\,u^{10}u_1{}^4 + 72\,u_1{}^7u^{10} + 140\,u^{10}u_1)z^{10} + (485343928941300\,u_1{}^{23}u^{47} + 2938612301384760\,u^{47}u_1{}^{17} + 1632562389658200\,u^{47}u_1{}^{20} + 2678029526390400\,u^{47}u_1{}^{14} + 370803629196\,u_1{}^{32}u^{47} + 79646183210880\,u^{47}u_1{}^{26} + 7298357146080\,u_1{}^{29}u^{47} + 893970\,u_1{}^{41}u^{47} + 1128243920840400\,u^{47}u_1{}^{11} + 188835415322400\,u^{47}u_1{}^8 + 141181040\,u_1{}^{38}u^{47} + 10150595910\,u_1{}^{35}u^{47} + 2070\,u_1{}^{44}u^{47} + 9521113377600\,u^{47}u_1{}^5 + 76938289920\,u^{47}u_1{}^2 + u_1{}^{47}u^{47})z^{47} + (u_1{}^{17}u^{17} + 240\,u_1{}^{14}u^{17} + 90090\,u^{17}u_1{}^5 + 60060\,u_1{}^8u^{17} + 8190\,u_1{}^{11}u^{17} + 16632\,u^{17}u_1{}^2)z^{17} + (46558512\,u^{25}u_1{}^7 + 218790\,u^{25}u_1 + u_1{}^{25}u^{25} + 1492260\,u_1{}^{16}u^{25} + 46558512\,u^{25}u_1{}^{10} + 552\,u_1{}^{22}u^{25} + 10501920\,u^{25}u_1{}^4 + 14244300\,u_1{}^{13}u^{25} + 53130\,u_1{}^{19}u^{25})z^{25} + (u_1{}^{24}u^{24} + 12870\,u^{24} + 17153136\,u^{24}u_1{}^6 + 506\,u_1{}^{21}u^{24} + 43890\,u_1{}^{18}u^{24} + 8817900\,u^{24}u_1{}^{12} + 2333760\,u^{24}u_1{}^3 + 1085280\,u_1{}^{15}u^{24} + 23279256\,u^{24}u_1{}^9)z^{24} + (u_1{}^{23}u^{23} + 775200\,u_1{}^{14}u^{23} + 5717712\,u^{23}u_1{}^5 + 462\,u_1{}^{20}u^{23} + 411840\,u^{23}u_1{}^2 + 11027016\,u^{23}u_1{}^8 + 5290740\,u^{23}u_1{}^{11} + 35910\,u_1{}^{17}u^{23})z^{23} + (12\,u^5u_1{}^2 + u_1{}^5u^5)z^5 + (u_1{}^{15}u^{15} + 252\,u^{15} + 11550\,u^{15}u_1{}^3 + 182\,u_1{}^{12}u^{15} + 4290\,u_1{}^9u^{15} + 18480\,u^{15}u_1{}^6)z^{15} + (44251361954813574000\,u_1{}^{17}u^{59} + 6030539718840\,u_1{}^{44}u^{59} + 246507617396040\,u_1{}^{41}u^{59} + 19318718987507511936\,u^{59}u_1{}^{26} + 58328988214122687600\,u^{59}u_1{}^{20} + 43601275492638481800\,u^{59}u_1{}^{23} + u_1{}^{59}u^{59} + 27569305764000\,u^{59}u_1{}^2 + 6800888243549400\,u^{59}u_1{}^5 + 275435973863750700\,u^{59}u_1{}^8 + 17831659928458210560\,u^{59}u_1{}^{14} + 649368720\,u_1{}^{50}u^{59} + 92336063013844650\,u^{59}u_1{}^{35} + 6071092494667200\,u_1{}^{38}u^{59} + 877762574329140500\,u^{59}u_1{}^{32} + 5224442842407044256\,u_1{}^{29}u^{59} + 3457417017378616110\,u^{59}u_1{}^{11} + 85229644500\,u_1{}^{47}u^{59} + 2370060\,u^{59}u_1{}^{53} + 3306\,u_1{}^{56}u^{59})z^{59} + (u_1{}^{16}u^{16} + 6006\,u_1{}^{10}u^{16} + 34650\,u_1{}^4u^{16} + 2772\,u^{16}u_1 + 210\,u_1{}^{13}u^{16} + 34320\,u_1{}^7u^{16})z^{16} + (u_1{}^{55}u^{55} + 44573413500\,u^{55}u_1{}^{43} + 2862\,u_1{}^{52}u^{55} + 407170400\,u^{55}u_1{}^{46} + 1756950\,u^{55}u_1{}^{49} + 1655324378959680\,u^{55}u_1{}^{34} + 2588614098840\,u_1{}^{40}u^{55} + 85251690988464\,u^{55}u_1{}^{37} + 137057499665114600\,u^{55}u_1{}^{28} + 19346603679091260\,u_1{}^{31}u^{55} + 1484298740174927040\,u^{55}u_1{}^{22} + 5856526550907592 56\,u_1{}^{25}u^{55} + 2164602329421768600\,u^{55}u_1{}^{19} + 1731801010493761200\,u^{55}u_1{}^{16} + 706857555303576000\,u^{55}u_1{}^{13} + 9245179610525430\,u^{55}u_1{}^7 + 335780006100\,u^{55}u_1 + 172255143129300\,u^{55}u_1{}^4 + 131486998905250560\,u^{55}u_1{}^{10})z^{55} + (u_1{}^{14}u^{14} + 156\,u_1{}^{11}u^{14} + 3150\,u^{14}u_1{}^2 + 2970\,u_1{}^8u^{14} + 9240\,u^{14}u_1{}^5)z^{14} + (u_1{}^{49}u^{49} + 15688789642103760\,u_1{}^{16}u^{49} + 7193730107520\,u^{49}u_1{}^4 + 19835652870\,u^{49}u_1 + 269764879032000\,u^{49}u_1{}^7 + 2643695814513600\,u^{49}u_1{}^{10} + 9633467324098800\,u^{49}u_1{}^{13} + 2256\,u_1{}^{46}u^{49} + 1070190\,u_1{}^{43}u^{49} + 5512548328716000\,u^{49}u_1{}^{22} + 1326606739106220\,u_1{}^{25}u^{49} + 12733986639333960\,u_1{}^{19}u^{49} + 181416306202560\,u_1{}^{28}u^{49} + 14172938715936\,u_1{}^{31}u^{49} + 15088723650\,u_1{}^{37}u^{49} + 187336380\,u_1{}^{40}u^{49} + 625276708056\,u_1{}^{34}u^{49})z^{49} + (2333606220\,u^{51} + 245430240\,u_1{}^{42}u^{51} + 28159366024288800\,u^{51}u_1{}^{12} + 67984755115782960\,u^{51}u_1{}^{15} + 3934071152550\,u^{51}u_1{}^3 + 4990650262092000\,u^{51}u_1{}^9 + 302136664515840\,u^{51}u_1{}^6 + 1027240306092\,u_1{}^{36}u^{51} + 394528334868096\,u_1{}^{30}u^{51} + 17196754025451000\,u^{51}u_1{}^{24} + 79982064842097600\,u^{51}u_1{}^{18} + 49723185925018320\,u_1{}^{21}u^{51} + 22012024650\,u_1{}^{39}u^{51} + 2450\,u_1{}^{48}u^{51} + 1271256\,u^{51}u_1{}^{45} + 26574260092380\,u_1{}^{33}u^{51} + 3412894260435660\,u_1{}^{27}u^{51} + u_1{}^{51}u^{51})z^{51} + (1499400\,u_1{}^{47}u^{53} + 317814000\,u^{53}u_1{}^{44} + 2652\,u_1{}^{50}u^{53} + u_1{}^{53}u^{53} + 8322082063623900\,u_1{}^{29}u^{53} +$$

$$823259731025160\,u_1{}^{32}u^{53} + 48280294386324\,u_1{}^{35}u^{53} + 31568464620\,u_1{}^{41}u^{53} + 50055782486389680\,u_1{}^{26}u^{53} + 177470501542654320\,u_1{}^{23}u^{53} + 362445041205505440\,u^{53}u_1{}^{20} + 409908082315750200\,u^{53}u_1{}^{17} + 262009138759830\,u^{53}u_1{}^5 + 241365994493904000\,u^{53}u_1{}^{14} + 7585788398379840\,u^{53}u_1{}^8 + 67237669894730400\,u^{53}u_1{}^{11} + 1470171918600\,u^{53}u_1{}^2 + 1648260405792\,u_1{}^{38}u^{53})z^{53} + (u_1{}^{13}u^{13} + 132\,u_1{}^{10}u^{13} + 1980\,u_1{}^7u^{13} + 630\,u^{13}u_1 + 4200\,u^{13}u_1{}^4)z^{13} + (3660\,u_1{}^{59}u^{62} + u_1{}^{62}u^{62} + 271491667495898850\,u_1{}^{38}u^{62} + 1441856877027675619 50\,u^{62}u_1{}^{14} + 901149480\,u^{62}u_1{}^{53} + 2925810\,u^{62}u_1{}^{56} + 23687493752282560200\,u^{62}u_1{}^{11} + 1608410069599433100\,u^{62}u_1{}^8 + 10882121009760\,u_1{}^{47}u^{62} + 34023280243352400\,u^{62}u_1{}^5 + 118685861314020\,u^{62}u_1{}^2 + 134175811770\,u_1{}^{50}u^{62} + 515946175945200\,u_1{}^{44}u^{62} + 671378558219697873600\,u^{62}u_1{}^{20} + 328686538329120862800\,u_1{}^{26}u^{62} + 425206420205808653280\,u^{62}u_1{}^{17} + 606805916915300054400\,u^{62}u_1{}^{23} + 14941380074821200\,u_1{}^{41}u^{62} + 23278263471208806060\,u^{62}u_1{}^{32} + 3141706045261183400\,u_1{}^{35}u^{62} + 110101894612710436800\,u_1{}^{29}u^{62})z^{62} + (19921840099761600\,u^{63}u_1{}^{42} + 382872864417293250\,u_1{}^{39}u^{63} + 9080205938374981 4100\,u^{63}u_1{}^{12} + 8042050347997165500\,u^{63}u_1{}^9 + 471255906789177 5100\,u_1{}^{36}u^{63} + 190843283995364757120\,u^{63}u_1{}^{30} + 37386301938608082460\,u^{63}u_1{}^{33} + 653531822863920\,u_1{}^{45}u^{63} + 1566549969179295038400\,u^{63}u_1{}^{21} + 126417899357354178 0000\,u_1{}^{24}u^{63} + 113388378721548974 2080\,u^{63}u_1{}^{18} + 620852350177228296400\,u_1{}^{27}u^{63} + 1701164012167620\,u^{63}u_1{}^3 + 24950405511791 7600\,u^{63}u_1{}^6 + 451781821468671694110\,u^{63}u_1{}^{15} + 13149229553460\,u_1{}^{48}u^{63} + u_1{}^{63}u^{63} + 155222997930\,u^{63}u_1{}^{51} + 3782\,u_1{}^{60}u^{63} + 538257874440\,u^{63} + 1001277200\,u^{63}u_1{}^{54} + 3131130\,u_1{}^{57}u^{63})z^{63} + (3347070\,u^{64}u_1{}^{58} + 26408020597358400\,u_1{}^{43}u^{64} + 15832745788860\,u_1{}^{49}u^{64} + 135534546440601508 2330\,u_1{}^{16}u^{64} + 115301150747199540 7600\,u^{64}u_1{}^{28} + 356034083904385 2360000\,u_1{}^{22}u^{64} + 257892514689002523 1200\,u_1{}^{25}u^{64} + 292422660913468407 1680\,u^{64}u_1{}^{19} + 36993431600786961300\,u^{64}u_1{}^{10} + 328284368541249327900\,u^{64}u_1{}^{13} + 59378244255436366260\,u_1{}^{34}u^{64} + 326280453282397810560\,u_1{}^{31}u^{64} + 536022010184210550\,u_1{}^{40}u^{64} + 7005155371190476500\,u^{64}u_1{}^{37} + 824018385350160\,u_1{}^{46}u^{64} + 1603954640043756000\,u^{64}u_1{}^7 + 23145088600920\,u^{64}u_1 + 18712804133843820\,u^{64}u_1{}^4 + u_1{}^{64}u^{64} + 3906\,u_1{}^{61}u^{64} + 179103459150\,u_1{}^{52}u^{64} + 1110507440\,u^{64}u_1{}^{55})z^{64} + (35345263800\,u^{57} + u_1{}^{57}u^{57} + 2046330\,u_1{}^{51}u^{57} + 62042589700\,u^{57}u_1{}^{45} + 516543300\,u^{57}u_1{}^{48} + 3080\,u_1{}^{54}u^{57} + 3986646103440\,u^{57}u_1{}^{42} + 43090162739794170\,u_1{}^{33}u^{57} + 607897497561075 3600\,u^{57}u_1{}^{15} + 210584646684190350\,u^{57}u_1{}^9 + 82937661506700\,u^{57}u_1{}^3 + 8957267442723600\,u^{57}u_1{}^6 + 1715307667536677760\,u^{57}u_1{}^{12} + 146688132267600\,u_1{}^{39}u^{57} + 10204553838702623400\,u^{57}u_1{}^{21} + 5566120275655976400\,u^{57}u_1{}^{24} + 1803676695592908136\,u_1{}^{27}u^{57} + 10707736966843778400\,u_1{}^{18}u^{57} + 355404274993676480\,u^{57}u_1{}^{30} + 3218686292421600\,u_1{}^{36}u^{57})z^{57} + (1356542160326853500\,u^{60}u_1{}^{33} + 870740473734507 3760\,u^{60}u_1{}^{30} + 7370659656360\,u_1{}^{45}u^{60} + 99434585250\,u_1{}^{48}u^{60} + 725765040\,u_1{}^{51}u^{60} + 1315971875126808900\,u^{60}u_1{}^9 + 47606217704845800\,u^{60}u_1{}^6 + 12677195730388259070\,u^{60}u_1{}^{12} + 53494979785374631680\,u^{60}u_1{}^{15} + 376780512108000\,u^{60}u_1{}^3 + 133374313242220050\,u_1{}^{36}u^{60} + u_1{}^{60}u^{60} + 316938365223480\,u_1{}^{42}u^{60} + 11308681388452357 8000\,u^{60}u_1{}^{18} + 35059897421772892032\,u^{60}u_1{}^{27} + 87202550985276963600\,u^{60}u_1{}^{24} + 13054583076494125 3200\,u^{60}u_1{}^{21} + 2545620\,u^{60}u_1{}^{54} + 3422\,u_1{}^{57}u^{60} + 137846528820\,u^{60} + 8250459031214400\,u_1{}^{39}u^{60})z^{60} + (170916999931142848656\,u^{61}u_1{}^{25} + 8972976972960\,u_1{}^{46}u^{61} + 292438194472624200\,u^{61}u_1{}^7 + 43882606065190127550\,u^{61}u_1{}^{13} + 405386281099800\,u_1{}^{43}u^{61} +$$

$$115668803250\,u_1^{49}u^{61} + 5651707681620\,u^{61}u_1 + 5790276250557959160\,u^{61}u_1^{10} + 3956195377134000\,u^{61}u_1^{4} + 11138119692139440\,u_1^{40}u^{61} + 19104949691941558450\,u^{61}u_1^{37} + 153798066882952066080\,u^{61}u_1^{16} + 2074711539323423000\,u_1^{34}u^{61} + 143250852130515729600\,u^{61}u_1^{31} + u_1^{61}u^{61} + 279741065924874114000\,u^{61}u_1^{19} + 62606959681737307200\,u_1^{28}u^{61} + 284827267123508188800\,u_1^{22}u^{61} + 809507160\,u^{61}u_1^{52} + 2730756\,u^{61}u_1^{55} + 3540\,u_1^{58}u^{61})z^{61} + (u_1^{58}u^{58} + 579793500\,u^{58}u_1^{49} + 4913773104240\,u^{58}u_1^{43} + 72832605300\,u^{58}u_1^{46} + 2203740\,u^{58}u_1^{52} + 3192\,u_1^{55}u^{58} + 4436567592256800\,u_1^{37}u^{58} + 829376615067000\,u^{58}u_1^{4} + 16717181182929572400\,u^{58}u_1^{16} + 52463995021666800\,u^{58}u_1^{7} + 884455516073599470\,u^{58}u_1^{10} + 5673709977236703360\,u^{58}u_1^{13} + 1378465288200\,u^{58}u_1 + 190694571947880\,u_1^{40}u^{58} + 25360429658314212000\,u_1^{19}u^{58} + 10464306118233235632\,u_1^{25}u^{58} + 213367943900145762000\,u^{58}u_1^{22} + 3092017192444985376\,u^{58}u_1^{28} + 561768047570649920\,u_1^{31}u^{58} + 63367886382050250\,u_1^{34}u^{58})z^{58} + (u_1^{54}u^{54} + 360189200\,u^{54}u_1^{45} + 2756\,u_1^{51}u^{54} + 1624350\,u_1^{48}u^{54} + 2070891279072\,u_1^{39}u^{54} + 37581505500\,u_1^{42}u^{54} + 742149370087463520\,u_1^{21}u^{54} + 325362586161532920\,u^{54}u_1^{24} + 956452192070083800\,u^{54}u_1^{18} + 83426304143982800\,u_1^{27}u^{54} + 12760525830889980\,u^{54}u_1^{30} + 224125566315768000\,u^{54}u_1^{12} + 659733718283337600\,u^{54}u_1^{15} + 1659391212145590\,u^{54}u_1^{6} + 32871749726312640\,u^{54}u_1^{9} + 18132120329400\,u^{54}u_1^{3} + 1172521435096440\,u_1^{33}u^{54} + 64373725848432\,u_1^{36}u^{54} + 9075135300\,u^{54})z^{54} + (u_1^{56}u^{56} + 1897506\,u^{56}u_1^{50} + 459149600\,u^{56}u_1^{47} + 52677670500\,u^{56}u_1^{44} + 2970\,u_1^{53}u^{56} + 3219983391240\,u_1^{41}u^{56} + 112173277616400\,u_1^{38}u^{56} + 6379820115900\,u^{56}u_1^{2} + 10361546974682663760\,u^{56}u_1^{26} + 4380437850072454800\,u^{56}u_1^{17} + 476212512472789092 0\,u^{56}u_1^{20} + 2904062752516161600\,u_1^{23}u^{56} + 1343590116408540\,u^{56}u_1^{5} + 212057266591072800 0\,u^{56}u_1^{14} + 490087905010479360\,u^{56}u_1^{11} + 46225898052627150\,u^{56}u_1^{8} + 2317454130543552\,u^{56}u_1^{35} + 29019905518636890\,u_1^{32}u^{56} + 222127671871047800\,u_1^{29}u^{56})z^{56} + (9424940515200\,u^{45}u_1^{6} + 386826487145280\,u^{45}u_1^{12} + 600076986468960\,u^{45}u_1^{15} + 180324117000\,u^{45}u_1^{3} + 740460\,u_1^{39}u^{45} + 104291454867600\,u^{45}u_1^{9} + 213610453056\,u_1^{30}u^{45} + 165711220002900\,u^{45}u_1^{21} + 1892\,u_1^{42}u^{45} + u_1^{45}u^{45} + 441233078286000\,u_1^{18}u^{45} + 3613576830864\,u_1^{27}u^{45} + 6688377150\,u_1^{33}u^{45} + 33185909671200\,u_1^{24}u^{45} + 155117520\,u^{45} + 104915720\,u_1^{36}u^{45})z^{45} + (u_1^{46}u^{46} + 1350173219555160\,u^{46}u_1^{16} + 286228470914100\,u_1^{22}u^{46} + 1442592936000\,u^{46}u_1^{4} + 8262112950\,u_1^{34}u^{46} + 814506\,u_1^{40}u^{46} + 859243362978000\,u_1^{19}u^{46} + 44431862428800\,u^{46}u_1^{7} + 121929080\,u_1^{37}u^{46} + 354590946549840\,u^{46}u_1^{10} + 51770019087072\,u_1^{25}u^{46} + 5162252615520\,u_1^{28}u^{46} + 282517050816\,u_1^{31}u^{46} + 4808643120\,u^{46}u_1 + 1041455926929600\,u_1^{13}u^{46} + 1980\,u_1^{43}u^{46})z^{46} + (u_1^{50}u^{50} + 1213941955644000\,u^{50}u_1^{8} + 337206098790\,u^{50}u_1^{2} + 26147982736839600\,u^{50}u_1^{14} + 50356110752640\,u^{50}u_1^{5} + 8892431376091200\,u^{50}u_1^{11} + 19487790734412\,u_1^{32}u^{50} + 2352\,u_1^{47}u^{50} + 1167480\,u_1^{44}u^{50} + 268996591955520\,u_1^{29}u^{50} + 2142980117017740\,u^{50}u_1^{26} + 214751460\,u_1^{41}u^{50} + 98267165859720 00\,u_1^{23}u^{50} + 25467973278667920\,u^{50}u_1^{20} + 35991929178943920\,u_1^{17}u^{50} + 803927196072\,u_1^{35}u^{50} + 18265297050\,u_1^{38}u^{50})z^{50} + (u_1^{52}u^{52} + 5363119552113180\,u_1^{28}u^{52} + 572702421582720\,u_1^{31}u^{52} + 1304872821252\,u_1^{37}u^{52} + 1381800\,u^{52}u_1^{46} + 2550\,u_1^{49}u^{52} + 26414429580\,u_1^{40}u^{52} + 81676217700\,u^{52}u_1 + 1597008083869440\,u^{52}u_1^{7} + 169961887789457400\,u^{52}u_1^{16} + 18964470995949600\,u^{52}u_1^{10} + 35406640372950\,u^{52}u_1^{4} + 84478098072866400\,u^{52}u_1^{13} + 35953410713220\,u_1^{34}u^{52} + 172592876764526400\,u^{52}u_1^{19} + 94926082220489520\,u^{52}u_1^{22} + 2957841692377572 0\,u_1^{25}u^{52} + 279676320\,u_1^{43}u^{52})z^{52} + (771033463200\,u^{41}u_1^{23} + 4128840588600\,u^{41}u_1^{8} + 15016756025700\,u^{41}u_1^{17} + 55213620\,u_1^{32}u^{41} + 15643718230140\,u_1^{11}u^{41} + 64055087712\,u_1^{26}u^{41} + 4777260396480\,u^{41}u_1^{20} + 493506\,u_1^{35}u^{41} + 2702561400\,u_1^{29}u^{41} + 1560\,u_1^{38}u^{41} + u_1^{41}u^{41} + 22921198872000\,u^{41}u_1^{14} + 3931426800\,u^{41}u_1^{2} + 321132045780\,u^{41}u_1^{5})z^{41} + (7962100660800\,u_1^{21}u^{42} + 41716581947040\,u^{42}u_1^{12} + 1156550194800\,u_1^{24}u^{42} + 1640\,u_1^{39}u^{42} + 548340\,u_1^{36}u^{42} + 87779194272\,u^{42}u_1^{27} + 65252460\,u_1^{33}u^{42} + 38003792400\,u^{42}u_1^{3} + u_1^{42}u^{42} + 3423244440\,u_1^{30}u^{42} + 28364983604100\,u^{42}u_1^{18} + 14221562027400\,u^{42}u_1^{9} + 1605660228900\,u^{42}u_1^{6} + 50426637518400\,u_1^{15}u^{42} + 40116600\,u^{42})z^{42} + (1722\,u_1^{40}u^{43} + 52251285586500\,u_1^{19}u^{43} + 45508998487680\,u^{43}u_1^{10} + 607620\,u_1^{37}u^{43} + 1711694288304\,u_1^{25}u^{43} + 107156604726600\,u_1^{16}u^{43} + 4306662360\,u_1^{31}u^{43} + u_1^{43}u^{43} + 285028443000\,u^{43}u_1^{4} + 76767600\,u_1^{34}u^{43} + 105895938788640\,u^{43}u_1^{13} + 119128906512\,u_1^{28}u^{43} + 7110781013700\,u^{43}u_1^{7} + 1163381400\,u^{43}u_1 + 13028891990400\,u_1^{22}u^{43})z^{43} + (671580\,u_1^{38}u^{44} + 20959521897600\,u_1^{23}u^{44} + 28443124054800\,u^{44}u_1^{8} + 136526995463040\,u^{44}u_1^{11} + 1767176346600\,u^{44}u_1^{5} + 257175851343840\,u^{44}u_1^{14} + 89927760\,u_1^{35}u^{44} + 5383327950\,u_1^{32}u^{44} + 17450721000\,u^{44}u_1^{2} + u_1^{44}u^{44} + 2501707036752\,u_1^{26}u^{44} + 220616539143000\,u^{44}u_1^{17} + 94052314055700\,u_1^{20}u^{44} + 1806\,u_1^{41}u^{44} + 160207839792\,u_1^{29}u^{44})z^{44} + (266181664320\,u_1^{15}u^{36} + 1622493600\,u^{36}u_1^{3} + 278256\,u_1^{30}u^{36} + 79919739900\,u^{36}u_1^{18} + 42536373880\,u^{36}u_1^{6} + 11176745580\,u^{36}u_1^{21} + 1190\,u_1^{33}u^{36} + 22151360\,u_1^{27}u^{36} + u_1^{36}u^{36} + 391527986850\,u^{36}u_1^{12} + 227873431500\,u_1^{9}u^{36} + 736281000\,u_1^{24}u^{36} + 2704156\,u^{36})z^{36} + (194699232\,u^{35}u_1^{2} + 552210750\,u_1^{23}u^{35} + 18123840\,u_1^{26}u^{35} + u_1^{35}u^{35} + 245520\,u_1^{29}u^{35} + 47951843940\,u_1^{17}u^{35} + 7571343780\,u_1^{20}u^{35} + 167797708650\,u^{35}u_1^{11} + 137680171200\,u^{35}u_1^{14} + 75957810500\,u^{35}u_1^{8} + 9816086280\,u^{35}u_1^{5} + 1122\,u_1^{32}u^{35})z^{35} + (280816200\,u^{40}u_1 + 5550996791340\,u_1^{10}u^{40} + 442890\,u_1^{34}u^{40} + 2118223800\,u_1^{28}u^{40} + 46495680\,u_1^{31}u^{40} + 1482\,u_1^{37}u^{40} + 46262007792\,u_1^{25}u^{40} + 7735904619300\,u_1^{16}u^{40} + 1101024156960\,u^{40}u_1^{7} + 2810153174400\,u_1^{19}u^{40} + 10028024506500\,u^{40}u_1^{13} + 55367594100\,u^{40}u_1^{4} + u_1^{40}u^{40} + 506679132960\,u_1^{22}u^{40})z^{40} + (10400600\,u^{39} + 1617966979200\,u_1^{18}u^{39} + 1406\,u_1^{36}u^{39} + 3867952309650\,u^{39}u_1^{15} + 265764451680\,u^{39}u_1^{6} + 1647507400\,u_1^{27}u^{39} + u_1^{39}u^{39} + 4205300599500\,u_1^{12}u^{39} + 38955840\,u_1^{30}u^{39} + 1850332263780\,u^{39}u_1^{9} + 396270\,u_1^{33}u^{39} + 327851203680\,u_1^{21}u^{39} + 7909656300\,u^{39}u_1^{3} + 33044291280\,u_1^{24}u^{39})z^{39} + (9465511770\,u^{32}u_1^{8} + 164430\,u_1^{26}u^{32} + 1636014380\,u^{32}u_1^{5} + 15297796800\,u^{32}u_1^{11} + 8923714800\,u_1^{14}u^{32} + u_1^{32}u^{32} + 930\,u_1^{29}u^{32} + 9500400\,u_1^{23}u^{32} + 2125943820\,u_1^{17}u^{32} + 42678636\,u^{32}u_1^{2} + 217567350\,u_1^{20}u^{32})z^{32} + (3155170590\,u^{31}u_1^{7} + 870\,u_1^{28}u^{31} + 7534800\,u_1^{22}u^{31} + 142506\,u_1^{25}u^{31} + 4805077200\,u^{31}u_1^{13} + u_1^{31}u^{31} + 155405250\,u_1^{19}u^{31} + 355655300\,u^{31}u_1^{4} + 6731030592\,u^{31}u_1^{10} + 3879876\,u^{31}u_1 + 1338557220\,u^{31}u_1^{16})z^{31} + (u_1^{38}u^{38} + 56949525360\,u^{38}u_1^{5} + 1332\,u_1^{35}u^{38} + 353430\,u_1^{32}u^{38} + 208632584160\,u_1^{20}u^{38} + 878850700\,u^{38}u_1^{2} + 1682120239800\,u_1^{11}u^{38} + 23325382080\,u_1^{23}u^{38} + 32463200\,u_1^{29}u^{38} + 574241047380\,u_1^{8}u^{38} + 1871589827250\,u_1^{14}u^{38} + 1270934280\,u_1^{26}u^{38} + 910106425800\,u^{38}u_1^{17})z^{38} + (10546208400\,u^{37}u_1^{4} + 971890920\,u_1^{25}u^{37} + 873408586050\,u^{37}u_1^{13} + 638045608200\,u^{37}u_1^{10} + 164068870680\,u^{37}u_1^{7} + 314160\,u_1^{31}u^{37} + 130395365100\,u^{37}u_1^{19} + u_1^{37}u^{37} + 1260\,u_1^{34}u^{37} + 67603900\,u^{37}u_1 + 16257084480\,u_1^{22}u^{37} + 26898080\,u_1^{28}u^{37} + 499090620600\,u_1^{16}u^{37})z^{37} + (u_1^{67}u^{67} + 1609662488534100\,u^{67}u_1^{49} + 4290\,u_1^{64}u^{67} + 27094771300212\,u^{67}u_1^{52} + 1499487360\,u^{67}u_1^{58} + 271102628790\,u^{67}u_1^{55} + 141200385131500 6950\,u_1^{43}u^{67} + 218776390823333340 00\,u^{67}u_1^{40} + 59531124166113600\,u_1^{46}u^{67} + 238310134200314326 9200\,u^{67}u_1^{13} + 94684453367400\,u^{67}u_1 + 231183328784973364800\,u^{67}u_1^{10} + 8783561124049140 0\,u^{67}u_1^{4} + 866937482943650118 0\,u^{67}u_1^{7} + 195261475407387624648 00\,u_1^{28}u^{67} + 291280384894275171202 50\,u_1^{19}u^{67} + 114899528989437264765 00\,u_1^{16}u^{67} + 419645506895302064832 00\,u^{67}u_1^{22} + 362628454328005588632 00\,u^{67}u_1^{25} + 151144621741110750480 0\,u^{67}u_1^{34} + 672953434894945484280 0\,u^{67}u_1^{31} + 223604559448400009880\,u_1^{37}u^{67} + 4062240\,u_1^{61}u^{67})z^{67} + (14725620\,u_1^{25}u^{34} + 16224936\,u^{34}u_1 + u_1^{34}u^{34} + 68840085600\,u^{34}u_1^{13} + 215760\,u_1^{28}u^{34} + 5047562520\,u_1^{19}u^{34} + 1056\,u_1^{31}u^{34} + 409704750\,u_1^{22}u^{34} + 68362029450\,u^{34}u_1^{10} +$$

$$23371634000\,u^{34}u_1{}^{7} + 28109701620\,u^{34}u_1{}^{16} + 1963217256\,u^{34}u_1{}^{4})z^{34} + (16062686640\,u_1{}^{15}u^{33} + 3307023720\,u^{33}u_1{}^{18} + 33145226400\,u^{33}u_1{}^{12} + u_1{}^{33}u^{33} + 26293088250\,u^{33}u_1{}^{9} + 11875500\,u_1{}^{24}u^{33} + 188790\,u_1{}^{27}u^{33} + 6544057520\,u^{33}u_1{}^{6} + 300450150\,u_1{}^{21}u^{33} + 327202876\,u^{33}u_1{}^{3} + 992\,u_1{}^{30}u^{33} + 705432\,u^{33})z^{33} + (1249320072\,u^{29}u_1{}^{11} + 1097450640\,u^{29}u_1{}^{8} + 75710250\,u_1{}^{17}u^{29} + 4604600\,u_1{}^{20}u^{29} + u_1{}^{29}u^{29} + 105300\,u_1{}^{23}u^{29} + 261891630\,u^{29}u_1{}^{5} + 9237800\,u^{29}u_1{}^{2} + 756\,u_1{}^{26}u^{29} + 494236512\,u_1{}^{14}u^{29})z^{29} + (89700\,u_1{}^{22}u^{28} + 51482970\,u_1{}^{16}u^{28} + 399072960\,u^{28}u_1{}^{7} + u_1{}^{28}u^{28} + 923780\,u^{28}u_1 + 3542000\,u_1{}^{19}u^{28} + 288304632\,u_1{}^{13}u^{28} + 702\,u_1{}^{25}u^{28} + 62355150\,u^{28}u_1{}^{4} + 597500904\,u^{28}u_1{}^{10})z^{28} + (u_1{}^{30}u^{30} + 5920200\,u_1{}^{21}u^{30} + 812\,u_1{}^{27}u^{30} + 2804596080\,u^{30}u_1{}^{9} + 823727520\,u_1{}^{15}u^{30} + 960269310\,u^{30}u_1{}^{6} + 122850\,u_1{}^{24}u^{30} + 2498640144\,u_1{}^{12}u^{30} + 109359250\,u_1{}^{18}u^{30} + 64664600\,u^{30}u_1{}^{3} + 184756\,u^{30})z^{30} + (u_1{}^{19}u^{19} + 450450\,u^{19}u_1{}^{7} + 14280\,u_1{}^{13}u^{19} + 306\,u_1{}^{16}u^{19} + 160160\,u^{19}u_1{}^{10} + 252252\,u^{19}u_1{}^{4} + 12012\,u^{19}u_1)z^{19} + (75900\,u_1{}^{21}u^{27} + 271591320\,u^{27}u_1{}^{9} + 650\,u_1{}^{24}u^{27} + 162954792\,u^{27}u_1{}^{12} + 2691920\,u_1{}^{18}u^{27} + 34321980\,u^{27}u_1{}^{15} + u_1{}^{27}u^{27} + 12471030\,u^{27}u_1{}^{3} + 133024320\,u^{27}u_1{}^{6} + 48620\,u^{27})z^{27} + (2018940\,u_1{}^{17}u^{26} + 1969110\,u^{26}u_1{}^{2} + 600\,u_1{}^{23}u^{26} + 63756\,u_1{}^{20}u^{26} + u_1{}^{26}u^{26} + 39907296\,u^{26}u_1{}^{5} + 116396280\,u^{26}u_1{}^{8} + 22383900\,u^{26}u_1{}^{14} + 88884432\,u_1{}^{11}u^{26})z^{26} + (u_1{}^{18}u^{18} + 924\,u^{18} + 100100\,u^{18}u_1{}^{9} + 210210\,u^{18}u_1{}^{6} + 10920\,u_1{}^{12}u^{18} + 272\,u_1{}^{15}u^{18} + 72072\,u^{18}u_1{}^{3})z^{18} + (u_1{}^{22}u^{22} + 542640\,u_1{}^{13}u^{22} + 3063060\,u^{22}u_1{}^{10} + 4900896\,u^{22}u_1{}^{7} + 420\,u_1{}^{19}u^{22} + 51480\,u^{22}u_1 + 29070\,u_1{}^{16}u^{22} + 1681680\,u^{22}u_1{}^{4})z^{22} + (3432\,u^{21} + u_1{}^{21}u^{21} + 1701700\,u^{21}u_1{}^{9} + 2018016\,u^{21}u_1{}^{6} + 420420\,u^{21}u_1{}^{3} + 371280\,u_1{}^{12}u^{21} + 380\,u_1{}^{18}u^{21} + 23256\,u_1{}^{15}u^{21})z^{21} + (u_1{}^{20}u^{20} + 18360\,u_1{}^{14}u^{20} + 84084\,u^{20}u_1{}^{2} + 756756\,u^{20}u_1{}^{5} + 900900\,u^{20}u_1{}^{8} + 342\,u_1{}^{17}u^{20} + 247520\,u_1{}^{11}u^{20})z^{20} + (u_1{}^{6}u^{6} + 20\,u^{6}u_1{}^{3} + 6\,u^{6})z^{6} + (-3602125943325\,u^{69} - 2360703772999935432870000\,u_1{}^{15}u^{69} - 9686380739825790\,u_1{}^{51}u^{69} - 1103030785005642472980\,u_1{}^{39}u^{69} - 19675704430603489505737 5\,u_1{}^{21}u^{69} - 7435775587442144956650\,u_1{}^{36}u^{69} - 19944564988040307374760 0\,u_1{}^{27}u^{69} - 1820568714181665247 80\,u_1{}^{9}u^{69} - 25157349019005387711345 0\,u_1{}^{24}u^{69} - 7395191887947788925\,u_1{}^{45}u^{69} - 91281292474941827007750\,u_1{}^{18}u^{69} - 48288240\,u_1{}^{63}u^{69} - 10122175334336990657040 0\,u_1{}^{30}u^{69} - 31109044526841586305 00\,u_1{}^{12}u^{69} - 3752976116639178000\,u_1{}^{6}u^{69} - 17058982348359900\,u_1{}^{3}u^{69} - 181313438134752\,u_1{}^{54}u^{69} - 11018859684150813495 0\,u_1{}^{42}u^{69} - 2084568584280\,u_1{}^{57}u^{69} - 13855962120\,u_1{}^{60}u^{69} - 74035\,u_1{}^{66}u^{69} - \frac{661168867165381575}{2}\,u_1{}^{48}u^{69} - 33641789284652038676550\,u_1{}^{33}u^{69} - \frac{67}{2}\,u_1{}^{69}u^{69})z^{69} + (-\frac{1003047765875953297 5}{2}\,u^{70}u_1{}^{46} - \frac{846510005130879375}{4}\,u^{70}u_1{}^{49} - \frac{73967}{2}\,u^{70}u_1{}^{67} - 5216393820982444242450 0\,u^{70}u_1{}^{16} - 187277958389603250\,u^{70}u_1{}^{4} - \frac{594359590981606708965525}{2}\,u^{70}u_1{}^{22} - 24910600\,u^{70}u_1{}^{64} - 30949525709888503433625\,u^{70}u_1{}^{34} - 6254536762890524932005\,u^{70}u_1{}^{37} - \frac{342545024229525}{2}\,u^{70}u_1 - 21992440043505583080\,u^{70}u_1{}^{7} - 1158025972740\,u^{70}u_1{}^{58} - 105115525936176\,u^{70}u_1{}^{55} - 10301364118776473182440 0\,u^{70}u_1{}^{31} - 3270455372470700402474 85\,u^{70}u_1{}^{25} - 70462752085920006813 0\,u^{70}u_1{}^{10} - 796736247214227069 75\,u^{70}u_1{}^{43} - 881697986125470423525 0\,u^{70}u_1{}^{13} - 856609013887360643910\,u^{70}u_1{}^{40} - 7404617220\,u^{70}u_1{}^{61} - 5886339064971057\,u^{70}u_1{}^{52} - 2275726005045624815838 00\,u^{70}u_1{}^{28} - 164146183836518197689375\,u^{70}u_1{}^{19} - \frac{65}{4}\,u_1{}^{70}u^{70})z^{70} + (39065839856408670020 10\,u^{65}u_1{}^{17} + 745201331231707350\,u_1{}^{41}u^{65} + 5157850293780050462400\,u^{65}u_1{}^{26} + 550598264914046305320\,u_1{}^{32}u^{65} + 1034406058205520\,u_1{}^{47}u^{65} + 3573990\,u_1{}^{59}u^{65} + 933086695442571469 80\,u_1{}^{35}u^{65} + 1125546406427140552800\,u^{65}u_1{}^{14} + 158062844112453380100\,u^{65}u_1{}^{11} + 34810572605608800\,u_1{}^{44}u^{65} + 7894668817010281320000\,u_1{}^{23}u^{65} + 1032338686280701800 0\,u^{65}u_1{}^{38} + 2107227927448819193200\,u_1{}^{29}u^{65} + 7310566522836710179200\,u^{65}u_1{}^{20} + 9222739180251597000\,u^{65}u_1{}^{8} + 168415237204594380\,u^{65}u_1{}^{5} + 509191949220240\,u^{65}u_1{}^{2} +$$

$$u_1{}^{65}u^{65} + 18999294946632\,u^{65}u_1{}^{50} + 4032\,u_1{}^{62}u^{65} + 206137943550\,u_1{}^{53}u^{65} + 1229490380\,u^{65}u_1{}^{56})z^{65} + (22724646896952\,u^{66}u_1{}^{51} + 236676898150\,u^{66}u_1{}^{54} + 1358910420\,u^{66}u_1{}^{57} + u_1{}^{66}u^{66} + 2104098963720\,u^{66} + 10290875526533101 50\,u_1{}^{42}u^{66} + 1508802695333333 4000\,u_1{}^{39}u^{66} + 3812256\,u_1{}^{60}u^{66} + 1293007572756900\,u_1{}^{48}u^{66} + 7637879238303600\,u^{66}u_1{}^{3} + 6322513764498135204 00\,u^{66}u_1{}^{12} + 4816319349686945100 0\,u^{66}u_1{}^{9} + 1291183485235223580\,u^{66}u_1{}^{6} + 45640528527353760\,u_1{}^{45}u^{66} + 9176637748567438422 00\,u^{66}u_1{}^{33} + 1451468192910666730 80\,u_1{}^{36}u^{66} + 3793010269407874547760\,u^{66}u_1{}^{30} + 1710511577018894286 0000\,u^{66}u_1{}^{24} + 1012466909519787683 3600\,u_1{}^{27}u^{66} + 1775423298403201043 5200\,u^{66}u_1{}^{21} + 1085162218233574167 2250\,u^{66}u_1{}^{18} + 3676784927661992472480\,u^{66}u_1{}^{15} + 4160\,u_1{}^{63}u^{66})z^{66} + (31482456240430895700\,u_1{}^{41}u^{68} + 24614981254980893649 60\,u_1{}^{35}u^{68} + 77263799449636800\,u_1{}^{47}u^{68} + 19254595797247736750\,u_1{}^{44}u^{68} + 309831575760\,u^{68}u_1{}^{56} + 32206992300252\,u^{68}u_1{}^{53} + 4422\,u_1{}^{65}u^{68} + u_1{}^{68}u^{68} + 1651977600\,u^{68}u_1{}^{59} + 1995981485782284\,u^{68}u_1{}^{50} + 1177668511066154597490 0\,u^{68}u_1{}^{32} + 3412911696844000150 80\,u_1{}^{38}u^{68} + 4324320\,u^{68}u_1{}^{62} + 7573290007251154451265 0\,u_1{}^{20}u^{68} + 8511076221439797390000\,u^{68}u_1{}^{14} + 7531514051427808379280 0\,u^{68}u_1{}^{26} + 3446985869683117942950 0\,u^{68}u_1{}^{17} + 3703234878415972191600 0\,u_1{}^{29}u^{68} + 9670092115413482363520 0\,u^{68}u_1{}^{23} + 825654745660619160\,u^{68}u_1{}^{5} + 5201624897661900708 0\,u^{68}u_1{}^{8} + 2177742427450200\,u^{68}u_1{}^{2} + 1029816646405790443200\,u^{68}u_1{}^{11})z^{68} + u_1{}^{2}u^{2}z^{2}$$

The logarithm $\log_C(x)$ at equals

$$(x + 1/2\,u_1ux^2 + 1/3\,u_1{}^{2}u^{2}x^3 + (1/2\,u^3 + 1/4\,u_1{}^{3}u^3)x^4 + (1/5\,u_1{}^{4}u^4 + 6/5\,u_1u^4)x^5 + (2\,u^5u_1{}^{2} + 1/6\,u_1{}^{5}u^5)x^6 + (1/7\,u_1{}^{6}u^6 + \tfrac{20}{7}\,u^6u_1{}^{3} + 6/7\,u^6)x^7 + (1/8\,u_1{}^{7}u^7 + \tfrac{15}{4}\,u^7u_1{}^{4} + \tfrac{15}{4}\,u^7u_1)x^8 + (1/9\,u_1{}^{8}u^8 + 10\,u^8u_1{}^{2} + 14/3\,u^8u_1{}^{5})x^9 + (1/10\,u_1{}^{9}u^9 + 2\,u^9 + \tfrac{28}{5}\,u^9u_1{}^{6} + 21\,u^9u_1{}^{3})x^{10} + (1/11\,u_1{}^{10}u^{10} + \tfrac{420}{11}\,u^{10}u_1{}^{4} + \tfrac{72}{11}\,u_1{}^{7}u^{10} + \tfrac{140}{11}\,u^{10}u_1)x^{11} + (1/12\,u_1{}^{11}u^{11} + \tfrac{140}{3}\,u^{11}u_1{}^{2} + 15/2\,u^{11}u_1{}^{8} + 63\,u^{11}u_1{}^{5})x^{12} + (1/13\,u_1{}^{12}u^{12} + \tfrac{70}{13}\,u^{12} + \tfrac{110}{13}\,u_1{}^{9}u^{12} + \tfrac{1680}{13}\,u^{12}u_1{}^{3} + \tfrac{1260}{13}\,u^{12}u_1{}^{6})x^{13} + (1/14\,u_1{}^{13}u^{13} + \tfrac{66}{7}\,u_1{}^{10}u^{13} + \tfrac{990}{7}\,u_1{}^{7}u^{13} + 45\,u^{13}u_1 + 300\,u^{13}u_1{}^{4})x^{14} + (1/15\,u_1{}^{14}u^{14} + \tfrac{52}{5}\,u_1{}^{11}u^{14} + 210\,u^{14}u_1{}^{2} + 198\,u_1{}^{8}u^{14} + 616\,u^{14}u_1{}^{5})x^{15} + (1/16\,u_1{}^{15}u^{15} + \tfrac{63}{4}\,u^{15} + \tfrac{5775}{8}\,u^{15}u_1{}^{3} + \tfrac{91}{8}\,u_1{}^{12}u^{15} + \tfrac{2145}{8}\,u_1{}^{9}u^{15} + 1155\,u^{15}u_1{}^{6})x^{16} + (1/17\,u_1{}^{16}u^{16} + \tfrac{6006}{17}\,u_1{}^{10}u^{16} + \tfrac{34650}{17}\,u_1{}^{4}u^{16} + \tfrac{2772}{17}\,u^{16}u_1 + \tfrac{210}{17}\,u_1{}^{13}u^{16} + \tfrac{34320}{17}\,u_1{}^{7}u^{16})x^{17} + (1/18\,u_1{}^{17}u^{17} + \tfrac{40}{3}\,u_1{}^{14}u^{17} + 5005\,u^{17}u_1{}^{5} + \tfrac{10010}{3}\,u_1{}^{8}u^{17} + 455\,u_1{}^{11}u^{17} + 924\,u^{17}u_1{}^{2})x^{18} + (1/19\,u_1{}^{18}u^{18} + \tfrac{924}{19}\,u^{18} + \tfrac{100100}{19}\,u^{18}u_1{}^{9} + \tfrac{210210}{19}\,u^{18}u_1{}^{6} + \tfrac{10920}{19}\,u_1{}^{12}u^{18} + \tfrac{272}{19}\,u_1{}^{15}u^{18} + \tfrac{72072}{19}\,u^{18}u_1{}^{3})x^{19} + (1/20\,u_1{}^{19}u^{19} + \tfrac{45045}{2}\,u^{19}u_1{}^{7} + 714\,u_1{}^{13}u^{19} + \tfrac{153}{10}\,u_1{}^{16}u^{19} + 8008\,u^{19}u_1{}^{10} + \tfrac{63063}{5}\,u^{19}u_1{}^{4} + \tfrac{3003}{5}\,u^{19}u_1)x^{20} + (1/21\,u_1{}^{20}u^{20} + \tfrac{6120}{7}\,u_1{}^{14}u^{20} + 4004\,u^{20}u_1{}^{2} + 36036\,u^{20}u_1{}^{5} + 42900\,u^{20}u_1{}^{8} + \tfrac{114}{7}\,u_1{}^{17}u^{20} + \tfrac{35360}{3}\,u_1{}^{11}u^{20})x^{21} + (156\,u^{21} + 1/22\,u_1{}^{21}u^{21} + 77350\,u^{21}u_1{}^{9} + 91728\,u^{21}u_1{}^{6} + 19110\,u^{21}u_1{}^{3} + \tfrac{185640}{11}\,u_1{}^{12}u^{21} + \tfrac{190}{11}\,u_1{}^{18}u^{21} + \tfrac{11628}{11}\,u_1{}^{15}u^{21})x^{22} + (1/23\,u_1{}^{22}u^{22} + \tfrac{542640}{23}\,u_1{}^{13}u^{22} + \tfrac{3063060}{23}\,u^{22}u_1{}^{10} + \tfrac{4900896}{23}\,u^{22}u_1{}^{7} + \tfrac{420}{23}\,u_1{}^{19}u^{22} + \tfrac{51480}{23}\,u^{22}u_1 + \tfrac{29070}{23}\,u_1{}^{16}u^{22} + \tfrac{1681680}{23}\,u^{22}u_1{}^{4})x^{23} + (1/24\,u_1{}^{23}u^{23} + 32300\,u_1{}^{14}u^{23} + 238238\,u^{23}u_1{}^{5} + \tfrac{77}{4}\,u_1{}^{20}u^{23} + 17160\,u^{23}u_1{}^{2} + 459459\,u^{23}u_1{}^{8} + \tfrac{440895}{2}\,u^{23}u_1{}^{11} + \tfrac{5985}{4}\,u_1{}^{17}u^{23})x^{24} + (1/25\,u_1{}^{24}u^{24} + \tfrac{2574}{5}\,u^{24} + \tfrac{17153136}{25}\,u^{24}u_1{}^{6} + \tfrac{506}{25}\,u_1{}^{21}u^{24} + \tfrac{8778}{5}\,u_1{}^{18}u^{24} + 352716\,u^{24}u_1{}^{12} + \tfrac{466752}{5}\,u^{24}u_1{}^{3} + \tfrac{217056}{5}\,u_1{}^{15}u^{24} + \tfrac{23279256}{25}\,u^{24}u_1{}^{9})x^{25} + (1790712\,u^{25}u_1{}^{7} + 8415\,u^{25}u_1 + 1/26\,u_1{}^{25}u^{25} + \tfrac{746130}{13}\,u_1{}^{16}u^{25} + 1790712\,u^{25}u_1{}^{10} + \tfrac{276}{13}\,u_1{}^{22}u^{25} + 403920\,u^{25}u_1{}^{4} + \tfrac{7122150}{13}\,u_1{}^{13}u^{25} + \tfrac{26565}{13}\,u_1{}^{19}u^{25})x^{26} + (\tfrac{672980}{9}\,u_1{}^{17}u^{26} + 72930\,u^{26}u_1{}^{2} + \tfrac{200}{9}\,u_1{}^{23}u^{26} + \tfrac{7084}{3}\,u_1{}^{20}u^{26} + 1/27\,u_1{}^{26}u^{26} + 1478048\,u^{26}u_1{}^{5} + \tfrac{12932920}{3}\,u^{26}u_1{}^{8} + \tfrac{2487100}{3}\,u^{26}u_1{}^{14} + 3292016\,u_1{}^{11}u^{26})x^{27} + (\tfrac{18975}{7}\,u_1{}^{21}u^{27} + 9699690\,u^{27}u_1{}^{9} + \tfrac{325}{14}\,u_1{}^{24}u^{27} + 5819814\,u^{27}u_1{}^{12} + 96140\,u_1{}^{18}u^{27} + 1225785\,u^{27}u_1{}^{15} + 1/28\,u_1{}^{27}u^{27} + \tfrac{6235515}{14}\,u^{27}u_1{}^{3} + \tfrac{33256080}{7}\,u^{27}u_1{}^{6} + \tfrac{12155}{7}\,u^{27})x^{28} + (\tfrac{89700}{29}\,u_1{}^{22}u^{28} + \tfrac{51482970}{29}\,u_1{}^{16}u^{28} +$$

$\frac{399072960}{29}\,u^{28}u_1{}^7 + 1/29\,u_1{}^{28}u^{28} + \frac{923780}{29}\,u^{28}u_1 + \frac{3542000}{29}\,u_1{}^{19}u^{28} + \frac{288304632}{29}\,u_1{}^{13}u^{28} + \frac{702}{29}\,u_1{}^{25}u^{28} + \frac{62355150}{29}\,u^{28}u_1{}^4 + \frac{597500904}{29}\,u^{28}u_1{}^{10})x^{29} + (\frac{208220012}{5}\,u^{29}u_1{}^{11} + 36581688\,u^{29}u_1{}^8 + 2523675\,u_1{}^{17}u^{29} + \frac{460460}{3}\,u_1{}^{20}u^{29} + 1/30\,u_1{}^{29}u^{29} + 3510\,u_1{}^{23}u^{29} + 8729721\,u^{29}u_1{}^5 + \frac{923780}{3}\,u^{29}u_1{}^2 + \frac{126}{5}\,u_1{}^{26}u^{29} + \frac{82372752}{5}\,u_1{}^{14}u^{29})x^{30} + (1/31\,u_1{}^{30}u^{30} + \frac{5920200}{31}\,u_1{}^{21}u^{30} + \frac{812}{31}\,u_1{}^{27}u^{30} + \frac{2804596080}{31}\,u^{30}u_1{}^9 + \frac{823727520}{31}\,u_1{}^{15}u^{30} + \frac{960269310}{31}\,u^{30}u_1{}^6 + \frac{122850}{31}\,u_1{}^{24}u^{30} + \frac{2498640144}{31}\,u_1{}^{12}u^{30} + \frac{109359250}{31}\,u_1{}^{18}u^{30} + \frac{64664600}{31}\,u^{30}u_1{}^3 + \frac{184756}{31}\,u^{30})x^{31} + (\frac{1577585295}{16}\,u^{31}u_1{}^7 + \frac{435}{16}\,u_1{}^{28}u^{31} + \frac{470925}{2}\,u_1{}^{22}u^{31} + \frac{71253}{16}\,u_1{}^{25}u^{31} + \frac{300317325}{2}\,u^{31}u_1{}^{13} + 1/32\,u_1{}^{31}u^{31} + \frac{77702625}{16}\,u_1{}^{19}u^{31} + \frac{88913825}{8}\,u^{31}u_1{}^4 + 210344706\,u^{31}u_1{}^{10} + \frac{969969}{8}\,u^{31}u_1 + \frac{334639305}{8}\,u^{31}u_1{}^{16})x^{32} + (286833690\,u^{32}u_1{}^8 + \frac{54810}{11}\,u_1{}^{26}u^{32} + \frac{148728580}{3}\,u^{32}u_1{}^5 + 463569600\,u^{32}u_1{}^{11} + 270415600\,u_1{}^{14}u^{32} + 1/33\,u_1{}^{32}u^{32} + \frac{310}{11}\,u_1{}^{29}u^{32} + \frac{3166800}{11}\,u_1{}^{23}u^{32} + 64422540\,u_1{}^{17}u^{32} + 1293292\,u^{32}u_1{}^2 + 6592950\,u_1{}^{20}u^{32})x^{33} + (472431960\,u_1{}^{15}u^{33} + \frac{1653511860}{17}\,u^{33}u_1{}^{18} + 974859600\,u^{33}u_1{}^{12} + 1/34\,u_1{}^{33}u^{33} + 773326125\,u^{33}u_1{}^9 + \frac{5937750}{17}\,u_1{}^{24}u^{33} + \frac{94395}{17}\,u_1{}^{27}u^{33} + 192472280\,u^{33}u_1{}^6 + \frac{150225075}{17}\,u_1{}^{21}u^{33} + 9623614\,u^{33}u_1{}^3 + \frac{496}{17}\,u_1{}^{30}u^{33} + 20748\,u^{33})x^{34} + (420732\,u_1{}^{25}u^{34} + \frac{2317848}{5}\,u^{34}u_1 + 1/35\,u_1{}^{34}u^{34} + \frac{13768017120}{7}\,u^{34}u_1{}^{13} + \frac{43152}{7}\,u_1{}^{28}u^{34} + 144216072\,u_1{}^{19}u^{34} + \frac{1056}{35}\,u_1{}^{31}u^{34} + 11705850\,u_1{}^{22}u^{34} + \frac{13672405890}{7}\,u^{34}u_1{}^{10} + \frac{4674326800}{7}\,u^{34}u_1{}^7 + 803134332\,u^{34}u_1{}^{16} + \frac{280459608}{5}\,u^{34}u_1{}^4)x^{35} + (5408312\,u^{35}u_1{}^2 + \frac{30678375}{2}\,u_1{}^{23}u^{35} + 503440\,u_1{}^{26}u^{35} + 1/36\,u_1{}^{35}u^{35} + 6820\,u_1{}^{29}u^{35} + 1331995665\,u_1{}^{17}u^{35} + 210315105\,u_1{}^{20}u^{35} + \frac{9322094925}{2}\,u^{35}u_1{}^{11} + 3824449200\,u^{35}u_1{}^{14} + \frac{18989452625}{9}\,u^{35}u_1{}^8 + \frac{818007190}{3}\,u^{35}u_1{}^5 + \frac{187}{6}\,u_1{}^{32}u^{35})x^{36} + (\frac{266181664320}{37}\,u_1{}^{15}u^{36} + \frac{1622493600}{37}\,u^{36}u_1{}^3 + \frac{278256}{37}\,u_1{}^{30}u^{36} + \frac{79919739900}{37}\,u^{36}u_1{}^{18} + \frac{42536373880}{37}\,u^{36}u_1{}^6 + \frac{11176745580}{37}\,u^{36}u_1{}^{21} + \frac{1190}{37}\,u_1{}^{33}u^{36} + \frac{22151360}{37}\,u_1{}^{27}u^{36} + 1/37\,u_1{}^{36}u^{36} + \frac{391527986850}{37}\,u^{36}u_1{}^{12} + \frac{227873431500}{37}\,u_1{}^9u^{36} + \frac{736281000}{37}\,u_1{}^{24}u^{36} + \frac{2704156}{37}\,u^{36})x^{37} + (277531800\,u^{37}u_1{}^4 + \frac{485945460}{19}\,u_1{}^{25}u^{37} + 22984436475\,u^{37}u_1{}^{13} + 16790673900\,u^{37}u_1{}^{10} + 4317601860\,u^{37}u_1{}^7 + \frac{157080}{19}\,u_1{}^{31}u^{37} + \frac{65197682550}{19}\,u^{37}u_1{}^{19} + 1/38\,u_1{}^{37}u^{37} + \frac{630}{19}\,u_1{}^{34}u^{37} + 1779050\,u^{37}u_1 + \frac{8128542240}{19}\,u_1{}^{22}u^{37} + \frac{13449040}{19}\,u_1{}^{28}u^{37} + 13133963700\,u_1{}^{16}u^{37})x^{38} + (1/39\,u_1{}^{38}u^{38} + 1460244240\,u^{38}u_1{}^5 + \frac{444}{13}\,u_1{}^{35}u^{38} + \frac{117810}{13}\,u_1{}^{32}u^{38} + 5349553440\,u_1{}^{20}u^{38} + \frac{67603900}{3}\,u^{38}u_1{}^2 + 43131288200\,u_1{}^{11}u^{38} + 598086720\,u_1{}^{23}u^{38} + \frac{32463200}{39}\,u_1{}^{29}u^{38} + 14724129420\,u_1{}^8u^{38} + 47989482750\,u_1{}^{14}u^{38} + \frac{423644760}{13}\,u_1{}^{26}u^{38} + 23336062200\,u^{38}u_1{}^{17})x^{39} + (260015\,u^{39} + 40449174480\,u_1{}^{18}u^{39} + \frac{703}{20}\,u_1{}^{36}u^{39} + \frac{386795230965}{4}\,u^{39}u_1{}^{15} + 6644111292\,u^{39}u_1{}^6 + 41187685\,u_1{}^{27}u^{39} + 1/40\,u_1{}^{39}u^{39} + \frac{210265029975}{2}\,u_1{}^{12}u^{39} + 973896\,u_1{}^{30}u^{39} + \frac{92516613189}{4}\,u^{39}u_1{}^9 + \frac{39627}{4}\,u_1{}^{33}u^{39} + 8196280092\,u_1{}^{21}u^{39} + \frac{395482815}{2}\,u^{39}u_1{}^3 + 826107282\,u_1{}^{24}u^{39})x^{40} + (\frac{280816200}{41}\,u^{40}u_1 + \frac{5550996791340}{41}\,u_1{}^{10}u^{40} + \frac{442890}{41}\,u_1{}^{34}u^{40} + \frac{2118223800}{41}\,u_1{}^{28}u^{40} + \frac{46495680}{41}\,u_1{}^{31}u^{40} + \frac{1482}{41}\,u_1{}^{37}u^{40} + \frac{46262007792}{41}\,u_1{}^{25}u^{40} + \frac{7735904619300}{41}\,u_1{}^{16}u^{40} + \frac{1101024156960}{41}\,u^{40}u_1{}^7 + \frac{2810153174400}{41}\,u_1{}^{19}u^{40} + \frac{10028024506500}{41}\,u^{40}u_1{}^{13} + \frac{55367594100}{41}\,u^{40}u_1{}^4 + 1/41\,u_1{}^{40}u^{40} + \frac{506679132960}{41}\,u_1{}^{22}u^{40})x^{41} + (18357939600\,u^{41}u_1{}^{23} + 98305728300\,u^{41}u_1{}^8 + \frac{2502792670950}{7}\,u^{41}u_1{}^{17} + 1314610\,u_1{}^{32}u^{41} + 372469481670\,u_1{}^{11}u^{41} + 1525121136\,u_1{}^{26}u^{41} + \frac{796210066080}{7}\,u^{41}u_1{}^{20} + \frac{82251}{7}\,u_1{}^{35}u^{41} + 64346700\,u_1{}^{29}u^{41} + \frac{260}{7}\,u_1{}^{38}u^{41} + 1/42\,u_1{}^{41}u^{41} + \frac{3820199812000}{7}\,u^{41}u_1{}^{14} + 93605400\,u^{41}u_1{}^2 + 7646001090\,u^{41}u_1{}^5)x^{42} + (\frac{7962100660800}{43}\,u_1{}^{21}u^{42} + \frac{41716581947040}{43}\,u^{42}u_1{}^{12} + \frac{1156550194800}{43}\,u_1{}^{24}u^{42} + \frac{1640}{43}\,u_1{}^{39}u^{42} + \frac{548340}{43}\,u_1{}^{36}u^{42} + \frac{87779194272}{43}\,u^{42}u_1{}^{27} + \frac{65252460}{43}\,u_1{}^{33}u^{42} + \frac{38003792400}{43}\,u^{42}u_1{}^3 + 1/43\,u_1{}^{42}u^{42} + \frac{3423244440}{43}\,u_1{}^{30}u^{42} + \frac{28364983604100}{43}\,u^{42}u_1{}^{18} + \frac{14221562027400}{43}\,u^{42}u_1{}^9 + \frac{1605660228900}{43}\,u^{42}u_1{}^6 + \frac{50426637518400}{43}\,u_1{}^{15}u^{42} + \frac{40116600}{43}\,u^{42})x^{43} + (\frac{861}{22}\,u_1{}^{40}u^{43} + 1187529217875\,u_1{}^{19}u^{43} + \frac{11377249621920}{11}\,u^{43}u_1{}^{10} + \frac{151905}{11}\,u_1{}^{37}u^{43} + 38902142916\,u_1{}^{25}u^{43} + 2435377380150\,u_1{}^{16}u^{43} + 97878690\,u_1{}^{31}u^{43} + 1/44\,u_1{}^{43}u^{43} + \frac{71257110750}{11}\,u^{43}u_1{}^4 + \frac{19191900}{11}\,u_1{}^{34}u^{43} + 2406725881560\,u^{43}u_1{}^{13} + 2707475148\,u_1{}^{28}u^{43} + \frac{1777695253425}{11}\,u^{43}u_1{}^7 + \frac{290845350}{11}\,u^{43}u_1 + 296111181600\,u_1{}^{22}u^{43})x^{44} + (14924\,u_1{}^{38}u^{44} + 465767153280\,u_1{}^{23}u^{44} + 632069423440\,u^{44}u_1{}^8 + 30339332325 12\,u^{44}u_1{}^{11} + 39270585480\,u^{44}u_1{}^5 +$

$5715018918752\,u^{44}u_1{}^{14} + \frac{5995184}{3}\,u_1{}^{35}u^{44} + 119629510\,u_1{}^{32}u^{44} + 387793800\,u^{44}u_1{}^2 + 1/45\,u_1{}^{44}u^{44} + \frac{277967448528}{5}\,u_1{}^{26}u^{44} + \frac{14707769276200}{3}\,u^{44}u_1{}^{17} + 2090051423460\,u_1{}^{20}u^{44} + \frac{602}{15}\,u_1{}^{41}u^{44} + \frac{17800871088}{5}\,u_1{}^{29}u^{44})x^{45} + (204890011200\,u^{45}u_1{}^6 + 8409271459680\,u^{45}u_1{}^{12} + 13045151879760\,u^{45}u_1{}^{15} + 3920089500\,u^{45}u_1{}^3 + \frac{370230}{23}\,u_1{}^{39}u^{45} + 2267205540600\,u^{45}u_1{}^9 + \frac{106805226528}{23}\,u_1{}^{30}u^{45} + 3602417826150\,u^{45}u_1{}^{21} + \frac{946}{23}\,u_1{}^{42}u^{45} + 1/46\,u_1{}^{45}u^{45} + 9592023441000\,u_1{}^{18}u^{45} + \frac{1806788415432}{23}\,u_1{}^{27}u^{45} + \frac{3344188575}{23}\,u_1{}^{33}u^{45} + \frac{16592954835600}{23}\,u_1{}^{24}u^{45} + 3372120\,u^{45} + \frac{52457860}{23}\,u_1{}^{36}u^{45})x^{46} + (1/47\,u_1{}^{46}u^{46} + \frac{1350173219555160}{47}\,u^{46}u_1{}^{16} + \frac{286228470914100}{47}\,u_1{}^{22}u^{46} + \frac{1442592936000}{47}\,u^{46}u_1{}^4 + \frac{8262112950}{47}\,u_1{}^{34}u^{46} + \frac{814506}{47}\,u_1{}^{40}u^{46} + \frac{859243362978000}{47}\,u_1{}^{19}u^{46} + \frac{44431862428800}{47}\,u^{46}u_1{}^7 + \frac{121929080}{47}\,u_1{}^{37}u^{46} + \frac{354590946549840}{47}\,u^{46}u_1{}^{10} + \frac{51770019087072}{47}\,u_1{}^{25}u^{46} + \frac{5162252615520}{47}\,u_1{}^{28}u^{46} + \frac{282517050816}{47}\,u_1{}^{31}u^{46} + \frac{4808643120}{47}\,u^{46}u_1 + \frac{1041455926929600}{47}\,u_1{}^{13}u^{46} + \frac{1980}{47}\,u_1{}^{43}u^{46})x^{47} + (\frac{40445327411775}{4}\,u_1{}^{23}u^{47} + \frac{122442179224365}{2}\,u^{47}u_1{}^{17} + \frac{68023432902425}{2}\,u^{47}u_1{}^{20} + 55792281799800\,u^{47}u_1{}^{14} + \frac{30900302433}{4}\,u_1{}^{32}u^{47} + 1659295483560\,u^{47}u_1{}^{26} + 152049107210\,u_1{}^{29}u^{47} + \frac{148995}{8}\,u_1{}^{41}u^{47} + 23505081684175\,u^{47}u_1{}^{11} + 3934071152550\,u^{47}u_1{}^8 + \frac{8823815}{3}\,u_1{}^{38}u^{47} + \frac{1691765985}{8}\,u_1{}^{35}u^{47} + \frac{345}{8}\,u_1{}^{44}u^{47} + 198356528700\,u^{47}u_1{}^5 + 1602881040\,u^{47}u_1{}^2 + 1/48\,u_1{}^{47}u^{47})x^{48} + (1/49\,u_1{}^{48}u^{48} + \frac{601080390}{49}\,u^{48} + \frac{2162}{49}\,u_1{}^{45}u^{48} + 9860578884\,u_1{}^{33}u^{48} + \frac{979110}{49}\,u_1{}^{42}u^{48} + \frac{23271600}{7}\,u_1{}^{39}u^{48} + 208524489888\,u^{48}u_1{}^{30} + 14986937724000\,u^{48}u_1{}^9 + \frac{886248154385880}{7}\,u^{48}u_1{}^{18} + \frac{3031901580793800}{49}\,u^{48}u_1{}^{21} + \frac{1772326270}{7}\,u_1{}^{36}u^{48} + 69076158418800\,u^{48}u_1{}^{12} + \frac{943686595013760}{7}\,u^{48}u_1{}^{15} + \frac{53952975806400}{49}\,u^{48}u_1{}^6 + \frac{120944204135040}{49}\,u_1{}^{27}u^{48} + \frac{808906548235500}{49}\,u^{48}u_1{}^{24} + \frac{846321189120}{49}\,u^{48}u_1{}^3)x^{49} + (\frac{1}{50}\,u_1{}^{49}u^{49} + \frac{1568878964210376}{5}\,u_1{}^{16}u^{49} + \frac{719373010752}{5}\,u^{49}u_1{}^4 + \frac{1983565287}{5}\,u^{49}u_1 + 5395297580640\,u^{49}u_1{}^7 + 52873916290272\,u^{49}u_1{}^{10} + 192669346481976\,u^{49}u_1{}^{13} + \frac{1128}{25}\,u_1{}^{46}u^{49} + \frac{107019}{5}\,u_1{}^{43}u^{49} + 110250966574320\,u^{49}u_1{}^{22} + \frac{132660673910622}{5}\,u_1{}^{25}u^{49} + \frac{1273398663933396}{5}\,u_1{}^{19}u^{49} + \frac{18141630620256}{5}\,u_1{}^{28}u^{49} + \frac{7086469357968}{25}\,u_1{}^{31}u^{49} + 301774473\,u_1{}^{37}u^{49} + \frac{18733638}{5}\,u_1{}^{40}u^{49} + \frac{312638354028}{25}\,u_1{}^{34}u^{49})x^{50} + (\frac{1}{51}\,u_1{}^{50}u^{50} + 23802783444000\,u^{50}u_1{}^8 + 6611884290\,u^{50}u_1{}^2 + 512705543859600\,u^{50}u_1{}^{14} + 987374720640\,u^{50}u_1{}^5 + 174361399531200\,u^{50}u_1{}^{11} + 382113543812\,u_1{}^{32}u^{50} + \frac{784}{17}\,u_1{}^{47}u^{50} + \frac{389160}{17}\,u_1{}^{44}u^{50} + 5274442979520\,u_1{}^{29}u^{50} + 42019217980740\,u^{50}u_1{}^{26} + \frac{71583820}{17}\,u_1{}^{41}u^{50} + 192680717372000\,u_1{}^{23}u^{50} + 499372025071920\,u^{50}u_1{}^{20} + 705724101547920\,u_1{}^{17}u^{50} + \frac{267975732024}{17}\,u_1{}^{35}u^{50} + \frac{6088432350}{17}\,u_1{}^{38}u^{50})x^{51} + (\frac{583401555}{13}\,u^{51} + \frac{61357560}{13}\,u_1{}^{42}u^{51} + \frac{7039841506072200}{13}\,u^{51}u_1{}^{12} + 1307399136841980\,u^{51}u_1{}^{15} + \frac{1967035576275}{26}\,u^{51}u_1{}^3 + \frac{1247662565523000}{13}\,u^{51}u_1{}^9 + \frac{75534166128960}{13}\,u^{51}u_1{}^6 + 19754621271\,u_1{}^{36}u^{51} + 7587083362848\,u_1{}^{30}u^{51} + 330706808181750\,u^{51}u_1{}^{24} + 1538116631578800\,u^{51}u_1{}^{18} + 956215113942660\,u_1{}^{21}u^{51} + \frac{11006012325}{26}\,u_1{}^{39}u^{51} + \frac{1225}{26}\,u_1{}^{48}u^{51} + \frac{317814}{13}\,u^{51}u_1{}^{45} + 511043463315\,u_1{}^{33}u^{51} + 65632581931455\,u_1{}^{27}u^{51} + \frac{1}{52}\,u_1{}^{51}u^{51})x^{52} + (\frac{1}{53}\,u_1{}^{52}u^{52} + \frac{5363119552113180}{53}\,u_1{}^{28}u^{52} + \frac{572702421582720}{53}\,u_1{}^{31}u^{52} + \frac{1304872821252}{53}\,u_1{}^{37}u^{52} + \frac{1381800}{53}\,u^{52}u_1{}^{46} + \frac{2550}{53}\,u_1{}^{49}u^{52} + \frac{26414429580}{53}\,u_1{}^{40}u^{52} + \frac{81676217700}{53}\,u^{52}u_1 + \frac{1597008083869440}{53}\,u^{52}u_1{}^7 + \frac{169961887789457400}{53}\,u^{52}u_1{}^{16} + \frac{18964470995949600}{53}\,u^{52}u_1{}^{10} + \frac{35406640372950}{53}\,u^{52}u_1{}^4 + \frac{8447809807286640 0}{53}\,u^{52}u_1{}^{13} + \frac{35953410713220}{53}\,u_1{}^{34}u^{52} + \frac{172592876764526400}{53}\,u^{52}u_1{}^{19} + \frac{94926082220489520}{53}\,u^{52}u_1{}^{22} + \frac{29578416923775720}{53}\,u_1{}^{25}u^{52} + \frac{279676320}{53}\,u_1{}^{43}u^{52})x^{53} + (\frac{83300}{3}\,u_1{}^{47}u^{53} + \frac{52969000}{9}\,u^{53}u_1{}^{44} + \frac{442}{9}\,u_1{}^{50}u^{53} + \frac{1}{54}\,u_1{}^{53}u^{53} + 154112630807850\,u_1{}^{29}u^{53} + 15245550574540\,u_1{}^{32}u^{53} + \frac{2682238577018}{3}\,u_1{}^{35}u^{53} + \frac{1753803590}{3}\,u_1{}^{41}u^{53} + \frac{8342630414398280}{9}\,u_1{}^{26}u^{53} + \frac{9859472307925240}{3}\,u_1{}^{23}u^{53} + 6711945207509360\,u^{53}u_1{}^{20} + \frac{22772671239763900}{3}\,u^{53}u_1{}^{17} + 4852021088145\,u^{53}u_1{}^5 + 4469740638776000\,u^{53}u_1{}^{14} + 140477562932960\,u^{53}u_1{}^8 + 1245142035087600\,u^{53}u_1{}^{11} + 27225405900\,u^{53}u_1{}^2 + 30523340848\,u_1{}^{38}u^{53})x^{54} + (\frac{1}{55}\,u_1{}^{54}u^{54} + \frac{72037840}{11}\,u^{54}u_1{}^{45} + \frac{2756}{55}\,u_1{}^{51}u^{54} + \frac{324870}{11}\,u_1{}^{48}u^{54} + \frac{188262843552}{5}\,u_1{}^{39}u^{54} + 683300100\,u_1{}^{42}u^{54} + \frac{148429874017492704}{11}\,u_1{}^{21}u^{54} + 5915683384755144\,u^{54}u_1{}^{24} + \frac{19129043841401676 0}{11}\,u^{54}u_1{}^{18} + 1516841893526960\,u_1{}^{27}u^{54} + 232009560561636\,u^{54}u_1{}^{30} + \frac{44825113263153600}{11}\,u^{54}u_1{}^{12} +$

$\frac{131946743656667520}{11}\,u^{54}u_1{}^{15} + 30170749311738\,u^{54}u_1{}^{6} + 597668176842048\,u^{54}u_1{}^{9} +$
$329674915080\,u^{54}u_1{}^{3} + 21318571547208\,u_1{}^{33}u^{54} + \frac{5852156895312}{5}\,u_1{}^{36}u^{54} + 165002460\,u^{54})x^{55} +$
$(\frac{1}{56}\,u_1{}^{55}u^{55} + \frac{1591907625}{2}\,u^{55}u_1{}^{43} + \frac{1431}{28}\,u_1{}^{52}u^{55} + 7270900\,u^{55}u_1{}^{46} + \frac{878475}{28}\,u^{55}u_1{}^{49} + \frac{206915547369960}{7}\,u^{55}u_1{}^{34} +$
$46225251765\,u_1{}^{40}u^{55} + 1522351624794\,u^{55}u_1{}^{37} + \frac{17132187458139325}{7}\,u^{55}u_1{}^{28} + \frac{4836650919772815}{14}\,u_1{}^{31}u^{55} +$
$26505334645980840\,u^{55}u_1{}^{22} + 10458083126620701\,u_1{}^{25}u^{55} + 38653613025388725\,u^{55}u_1{}^{19} +$
$30925018044531450\,u^{55}u_1{}^{16} + \frac{88357194412947000}{7}\,u^{55}u_1{}^{13} + \frac{4622589805262715}{28}\,u^{55}u_1{}^{7} + \frac{11992143075}{2}\,u^{55}u_1 +$
$\frac{6151969397475}{2}\,u^{55}u_1{}^{4} + \frac{16435874863156320}{7}\,u^{55}u_1{}^{10})x^{56} + (\frac{1}{57}\,u_1{}^{56}u^{56} + \frac{632502}{19}\,u^{56}u_1{}^{50} + \frac{459149600}{57}\,u^{56}u_1{}^{47} +$
$\frac{17559223500}{19}\,u^{56}u_1{}^{44} + \frac{990}{19}\,u_1{}^{53}u^{56} + \frac{1073327797080}{19}\,u_1{}^{41}u^{56} + \frac{37391092538800}{19}\,u_1{}^{38}u^{56} +$
$111926668700\,u^{56}u_1{}^{2} + 18178152587162568\,u^{56}u_1{}^{26} + 76849786843376400\,u^{56}u_1{}^{17} +$
$83546054819787560\,u^{56}u_1{}^{20} + 50948469342388800\,u_1{}^{23}u^{56} + 23571756428220\,u^{56}u_1{}^{5} +$
$37203029226504000\,u^{56}u_1{}^{14} + 8598033421236480\,u^{56}u_1{}^{11} + 810980667589950\,u^{56}u_1{}^{8} +$
$40657090009536\,u^{56}u_1{}^{35} + 509121149449770\,u_1{}^{32}u^{56} + \frac{11690930098476200}{3}\,u_1{}^{29}u^{56})x^{57} +$
$(609401100\,u^{57} + \frac{1}{58}\,u_1{}^{57}u^{57} + \frac{1023165}{29}\,u_1{}^{51}u^{57} + \frac{31021294850}{29}\,u^{57}u_1{}^{45} + \frac{258271650}{29}\,u^{57}u_1{}^{48} + \frac{1540}{29}\,u_1{}^{54}u^{57} +$
$\frac{1993323051720}{29}\,u^{57}u_1{}^{42} + \frac{21545081369897085}{29}\,u_1{}^{33}u^{57} + 104809913372599200\,u^{57}u_1{}^{15} +$
$3630769770417075\,u^{57}u_1{}^{9} + 1429959681150\,u^{57}u_1{}^{3} + 154435645564200\,u^{57}u_1{}^{6} +$
$29574270129942720\,u^{57}u_1{}^{12} + \frac{73344066133800}{29}\,u_1{}^{39}u^{57} + 175940583425907300\,u^{57}u_1{}^{21} +$
$95967590959585800\,u^{57}u_1{}^{24} + 3109787406194669 2\,u_1{}^{27}u^{57} + 184616154600754800\,u_1{}^{18}u^{57} +$
$\frac{177702137496838240}{29}\,u^{57}u_1{}^{30} + \frac{16093431462108 00}{29}\,u_1{}^{36}u^{57})x^{58} + (\frac{1}{59}\,u_1{}^{58}u^{58} + \frac{579793500}{59}\,u^{58}u_1{}^{49} +$
$\frac{4913773104240}{59}\,u^{58}u_1{}^{43} + \frac{72832605300}{59}\,u^{58}u_1{}^{46} + \frac{2203740}{59}\,u^{58}u_1{}^{52} + \frac{3192}{59}\,u_1{}^{55}u^{58} + \frac{4436567592256800}{59}\,u_1{}^{37}u^{58} +$
$\frac{829376615067000}{59}\,u^{58}u_1{}^{4} + \frac{16717181182929572400}{59}\,u^{58}u_1{}^{16} + \frac{52463995021666800}{59}\,u^{58}u_1{}^{7} + \frac{884455516073599470}{59}\,u^{58}u_1{}^{10} +$
$\frac{5673709977236703360}{59}\,u^{58}u_1{}^{13} + \frac{1378465288200}{59}\,u^{58}u_1 + \frac{190694571947880}{59}\,u_1{}^{40}u^{58} + \frac{25360429658314212000}{59}\,u_1{}^{19}u^{58} +$
$\frac{1046430611823323563 2}{59}\,u_1{}^{25}u^{58} + \frac{21336794390014576200}{59}\,u^{58}u_1{}^{22} + \frac{3092017192444985376}{59}\,u^{58}u_1{}^{28} +$
$\frac{5617680475706499 20}{59}\,u_1{}^{31}u^{58} + \frac{63367886382050250}{59}\,u_1{}^{34}u^{58})x^{59} + (737522699246892900\,u_1{}^{17}u^{59} +$
$100508995314\,u_1{}^{44}u^{59} + 4108460289934\,u_1{}^{41}u^{59} + \frac{160989324895859328}{5}\,u^{59}u_1{}^{26} +$
$972149803568711460\,u^{59}u_1{}^{20} + 726687924877308030\,u^{59}u_1{}^{23} + \frac{1}{60}\,u_1{}^{59}u^{59} + 459488429400\,u^{59}u_1{}^{2} +$
$113348137392490\,u^{59}u_1{}^{5} + 4590599564395845\,u^{59}u_1{}^{8} + 297194332140970176\,u^{59}u_1{}^{14} +$
$10822812\,u_1{}^{50}u^{59} + \frac{3077868767128155}{2}\,u^{59}u_1{}^{35} + 101184874911120\,u_1{}^{38}u^{59} + \frac{43888128716457025}{3}\,u^{59}u_1{}^{32} +$
$\frac{435370236867253688}{5}\,u_1{}^{29}u^{59} + \frac{115247233912620537}{2}\,u^{59}u_1{}^{11} + 1420494075\,u_1{}^{47}u^{59} + 39501\,u^{59}u_1{}^{53} +$
$\frac{551}{10}\,u_1{}^{56}u^{59})x^{60} + (\frac{1356542160326853500}{61}\,u^{60}u_1{}^{33} + \frac{870740473734507 3760}{61}\,u^{60}u_1{}^{30} + \frac{7370659656360}{61}\,u_1{}^{45}u^{60} +$
$\frac{99434585250}{61}\,u_1{}^{48}u^{60} + \frac{725765040}{61}\,u_1{}^{51}u^{60} + \frac{131597187512680 8900}{61}\,u^{60}u_1{}^{9} + \frac{47606217704845800}{61}\,u^{60}u_1{}^{6} +$
$\frac{126771957305388259070}{61}\,u^{60}u_1{}^{12} + \frac{53494979785374631680}{61}\,u^{60}u_1{}^{15} + \frac{376780512108000}{61}\,u^{60}u_1{}^{3} +$
$\frac{133374313242220050}{61}\,u_1{}^{36}u^{60} + \frac{1}{61}\,u_1{}^{60}u^{60} + \frac{316938365223480}{61}\,u_1{}^{42}u^{60} + \frac{11308681388452357 8000}{61}\,u^{60}u_1{}^{18} +$
$\frac{350598974217728920 32}{61}\,u^{60}u_1{}^{27} + \frac{87202550985276963600}{61}\,u^{60}u_1{}^{24} + \frac{13054583076494125 3200}{61}\,u^{60}u_1{}^{21} + \frac{2545620}{61}\,u^{60}u_1{}^{54} +$
$\frac{3422}{61}\,u_1{}^{57}u^{60} + \frac{137846528820}{61}\,u^{60} + \frac{8250459031214400}{61}\,u_1{}^{39}u^{60})x^{61} + (2756725805341013688\,u^{61}u_1{}^{25} +$
$\frac{4486488486480}{31}\,u_1{}^{46}u^{61} + 4716745072139100\,u^{61}u_1{}^{7} + 707783880728873025\,u^{61}u_1{}^{13} +$
$\frac{202693140549900}{31}\,u_1{}^{43}u^{61} + \frac{57834401625}{31}\,u_1{}^{49}u^{61} + 91156575510\,u^{61}u_1 + 93391552428354180\,u^{61}u_1{}^{10} +$
$63809602857000\,u^{61}u_1{}^{4} + \frac{5569059846069720}{31}\,u_1{}^{40}u^{61} + \frac{95524845970779225}{31}\,u^{61}u_1{}^{37} +$
$248061398198309784 0\,u^{61}u_1{}^{16} + \frac{1037355769661711500}{31}\,u_1{}^{34}u^{61} + \frac{7162542606525786480}{31}\,u^{61}u_1{}^{31} + \frac{1}{62}\,u_1{}^{61}u^{61} +$
$451195267620764700 0\,u^{61}u_1{}^{19} + 100978967228608560 0\,u_1{}^{28}u^{61} +$
$459398817941142240 0\,u_1{}^{22}u^{61} + \frac{404753580}{31}\,u^{61}u_1{}^{52} + \frac{1365378}{31}\,u^{61}u_1{}^{55} + \frac{1770}{31}\,u_1{}^{58}u^{61})x^{62} + (\frac{1220}{21}\,u_1{}^{59}u^{62} +$
$\frac{1}{63}\,u_1{}^{62}u^{62} + 4309391547553950\,u_1{}^{38}u^{62} + \frac{160206319669741735 50}{7}\,u^{62}u_1{}^{14} + 14303960\,u^{62}u_1{}^{53} +$
$\frac{325090}{7}\,u^{62}u_1{}^{56} + 375991964321945400\,u^{62}u_1{}^{11} + \frac{76590955695211100}{3}\,u^{62}u_1{}^{8} + 172732079520\,u_1{}^{47}u^{62} +$

$540052067354800\,u^{62}u_1{}^{5} + 1883902560540\,u^{62}u_1{}^{2} + 2129774790\,u_1{}^{50}u^{62} +$
$8189621840400\,u_1{}^{44}u^{62} + \frac{74597617579966430400}{7}\,u^{62}u_1{}^{20} + 5217246640144775600\,u_1{}^{26}u^{62} +$
$\frac{47245157800645405920}{7}\,u^{62}u_1{}^{17} + 963183995103650880 0\,u^{62}u_1{}^{23} + 237164763092400\,u_1{}^{41}u^{62} +$
$\frac{1108488736724228860}{3}\,u^{62}u_1{}^{32} + \frac{448815149323026200}{9}\,u_1{}^{35}u^{62} + 174764912083667360 0\,u_1{}^{29}u^{62})x^{63} +$
$(311278751558775\,u^{63}u_1{}^{42} + \frac{191436432208646625}{32}\,u_1{}^{39}u^{63} + \frac{22700514845937453525}{16}\,u^{63}u_1{}^{12} +$
$\frac{2010512586999291375}{16}\,u^{63}u_1{}^{9} + \frac{11781397669729437 75}{16}\,u_1{}^{36}u^{63} + 2981926312427574330\,u^{63}u_1{}^{30} +$
$\frac{93465754846520206 15}{16}\,u^{63}u_1{}^{33} + \frac{40845738928995}{4}\,u_1{}^{45}u^{63} + 24477343268426484975\,u^{63}u_1{}^{21} +$
$\frac{39505935491731806 25}{2}\,u_1{}^{24}u^{63} + 17716934175242027220\,u^{63}u_1{}^{18} + \frac{38803271886076768525}{4}\,u_1{}^{27}u^{63} +$
$\frac{4252910030419 05}{16}\,u^{63}u_1{}^{3} + \frac{7797001722434925}{2}\,u^{63}u_1{}^{6} + \frac{22589091073433584705 5}{32}\,u^{63}u_1{}^{15} + \frac{3287307388365}{16}\,u_1{}^{48}u^{63} +$
$\frac{1}{64}\,u_1{}^{63}u^{63} + \frac{77611498965}{32}\,u^{63}u_1{}^{51} + \frac{1891}{32}\,u_1{}^{60}u^{63} + \frac{67282234305}{8}\,u^{63} + \frac{62579825}{4}\,u^{63}u_1{}^{54} + \frac{1565565}{32}\,u_1{}^{57}u^{63})x^{64} +$
$(\frac{669414}{13}\,u^{64}u_1{}^{58} + 406277239959360\,u_1{}^{43}u^{64} + 243580704444\,u_1{}^{49}u^{64} + \frac{27106909288120301646 6}{13}\,u_1{}^{16}u^{64} +$
$177386385764922370 40\,u^{64}u_1{}^{28} + \frac{71206816780877042000}{13}\,u_1{}^{22}u^{64} + \frac{51578502937800504624 0}{13}\,u_1{}^{25}u^{64} +$
$\frac{58484532182693681 4336}{13}\,u^{64}u_1{}^{19} + 569129716935184020\,u^{64}u_1{}^{10} + \frac{65656873708249865580}{13}\,u^{64}u_1{}^{13} +$
$913511450083636404\,u_1{}^{34}u^{64} + 5019699281267658624\,u_1{}^{31}u^{64} + 8246492464372470\,u_1{}^{40}u^{64} +$
$107771621095238100\,u^{64}u_1{}^{37} + 12677205928464\,u_1{}^{46}u^{64} + 24676225231442400\,u^{64}u_1{}^{7} +$
$356078286168\,u^{64}u_1 + 287889294366828\,u^{64}u_1{}^{4} + \frac{1}{65}\,u_1{}^{64}u^{64} + \frac{3906}{65}\,u_1{}^{61}u^{64} + \frac{35820691830}{13}\,u_1{}^{52}u^{64} +$
$\frac{222101488}{13}\,u^{64}u_1{}^{55})x^{65} + (5919066644910404 5485\,u^{65}u_1{}^{17} + 11290929261086475\,u_1{}^{41}u^{65} +$
$\frac{859641715630008410400}{11}\,u^{65}u_1{}^{26} + \frac{91766377485674384220}{11}\,u_1{}^{32}u^{65} + 15672819063720\,u_1{}^{47}u^{65} + \frac{595665}{11}\,u_1{}^{59}u^{65} +$
$1413767720367532530\,u_1{}^{35}u^{65} + 17053733430714250800\,u^{65}u_1{}^{14} +$
$2394891577461414850\,u^{65}u_1{}^{11} + 527432918266800\,u_1{}^{44}u^{65} + \frac{13157781361683802200 00}{11}\,u_1{}^{23}u^{65} +$
$156414952466773000\,u^{65}u_1{}^{38} + \frac{10536139637244095966 00}{33}\,u_1{}^{29}u^{65} + 11076615943691985120 0\,u^{65}u_1{}^{20} +$
$139738472428054500\,u^{65}u_1{}^{8} + 2551746018251430\,u^{65}u_1{}^{5} + 7715029533640\,u^{65}u_1{}^{2} + \frac{1}{66}\,u_1{}^{65}u^{65} +$
$287868105252\,u^{65}u_1{}^{50} + \frac{672}{11}\,u_1{}^{62}u^{65} + 3123302175\,u_1{}^{53}u^{65} + \frac{614745190}{33}\,u^{65}u_1{}^{56})x^{66} +$
$(\frac{22724646896952}{67}\,u^{66}u_1{}^{51} + \frac{236676898150}{67}\,u^{66}u_1{}^{54} + \frac{1358910420}{67}\,u^{66}u_1{}^{57} + \frac{1}{67}\,u_1{}^{66}u^{66} + \frac{2104098963720}{67}\,u^{66} +$
$\frac{10290875526531 50150}{67}\,u_1{}^{42}u^{66} + \frac{15088026953333334000}{67}\,u_1{}^{39}u^{66} + \frac{3812256}{67}\,u_1{}^{60}u^{66} + \frac{1293007572756900}{67}\,u_1{}^{48}u^{66} +$
$\frac{7637879238303600}{67}\,u^{66}u_1{}^{3} + \frac{63225137644498 13520400}{67}\,u^{66}u_1{}^{12} + \frac{48163193496869451000}{67}\,u^{66}u_1{}^{9} +$
$\frac{1291183485235223580}{67}\,u^{66}u_1{}^{6} + \frac{45640528527353760}{67}\,u_1{}^{45}u^{66} + \frac{91766377485674384220 0}{67}\,u^{66}u_1{}^{33} +$
$\frac{1451468192910666 73080}{67}\,u_1{}^{36}u^{66} + \frac{37930102694078745477 60}{67}\,u^{66}u_1{}^{30} + \frac{1710511577018894286000 0}{67}\,u^{66}u_1{}^{24} +$
$\frac{1012466905919787683 3600}{67}\,u_1{}^{27}u^{66} + \frac{17754232984032010435200}{67}\,u^{66}u_1{}^{21} + \frac{10851622182335741672250}{67}\,u^{66}u_1{}^{18} +$
$\frac{3676784927661992472480}{67}\,u^{66}u_1{}^{15} + \frac{4160}{67}\,u_1{}^{63}u^{66})x^{67} + (\frac{1}{68}\,u_1{}^{67}u^{67} + 23671507184325\,u^{67}u_1{}^{49} +$
$\frac{2145}{34}\,u_1{}^{64}u^{67} + \frac{6773692825053}{17}\,u^{67}u_1{}^{52} + \frac{374871840}{17}\,u^{67}u_1{}^{58} + \frac{135551314395}{34}\,u^{67}u_1{}^{55} + \frac{41529525038676675}{2}\,u_1{}^{43}u^{67} +$
$321729986504901975\,u^{67}u_1{}^{40} + 875457708325200\,u_1{}^{46}u^{67} + \frac{5957753355500785817300}{17}\,u^{67}u_1{}^{13} +$
$\frac{23671113341850}{17}\,u^{67}u_1 + \frac{57795832196243341200}{17}\,u^{67}u_1{}^{10} + \frac{21958902810122850}{17}\,u^{67}u_1{}^{4} + \frac{21673437073591252 95}{17}\,u^{67}u_1{}^{7} +$
$287149228540275918600\,u_1{}^{28}u^{67} + \frac{85670701439492697412 5}{2}\,u_1{}^{19}u^{67} + \frac{28724882247359316191 25}{17}\,u_1{}^{16}u^{67} +$
$617125745434267742400\,u^{67}u_1{}^{22} + 533277138717655277400\,u^{67}u_1{}^{25} +$
$22227150256045698600\,u^{67}u_1{}^{34} + 98963740425727277100\,u^{67}u_1{}^{31} +$
$3288302344829411910\,u_1{}^{37}u^{67} + \frac{1015560}{17}\,u_1{}^{61}u^{67})x^{68} + (456267481745375300\,u_1{}^{41}u^{68} +$
$356738858767839038 40\,u_1{}^{35}u^{68} + \frac{2575459981654560 0}{23}\,u_1{}^{47}u^{68} + 27905214452865750\,u_1{}^{44}u^{68} +$
$\frac{103277191920}{23}\,u^{68}u_1{}^{56} + \frac{10735664100084}{23}\,u^{68}u_1{}^{53} + \frac{1474}{23}\,u_1{}^{65}u^{68} + \frac{1}{69}\,u_1{}^{68}u^{68} + \frac{550659200}{23}\,u^{68}u_1{}^{59} +$
$\frac{665327161927428}{23}\,u^{68}u_1{}^{50} + 1706765958066890721 00\,u^{68}u_1{}^{32} + 4946248836005797320\,u_1{}^{38}u^{68} +$
$\frac{1441440}{23}\,u^{68}u_1{}^{62} + 109757826192045716685 0\,u_1{}^{20}u^{68} + 123348930745504310000\,u^{68}u_1{}^{14} +$
$109152377556924759 1200\,u^{68}u_1{}^{26} + 49956316951929245550 0\,u^{68}u_1{}^{17} +$

$$53670070701680756400 0\,u_1{}^{29}u^{68} + 14014626254222438200 00\,u^{68}u_1{}^{23} + 1196601080667564 0\,u^{68}u_1{}^{5} + 753858680820565320\,u^{68}u_1{}^{8} + 31561484455800\,u^{68}u_1{}^{2} + 149248789334172528 00\,u^{68}u_1{}^{11})x^{69} + (-\tfrac{102917884095}{2}\,u^{69} - 337243396142764904100\,u_1{}^{15}u^{69} - 138376867711797\,u_1{}^{51}u^{69} - 15757582642937749614\,u_1{}^{39}u^{69} - \tfrac{5621629837315282715925}{2}\,u_1{}^{21}u^{69} - 106225365534887785095\,u_1{}^{36}u^{69} - 284922356972004391068 0\,u_1{}^{27}u^{69} - 2600812448830950354\,u_1{}^{9}u^{69} - 359390700271505538733 5\,u_1{}^{24}u^{69} - \tfrac{211291196798508255}{2}\,u_1{}^{45}u^{69} - 130401846392774038582 5\,u_1{}^{18}u^{69} - 689832\,u_1{}^{63}u^{69} - 144602504776242723672 0\,u_1{}^{30}u^{69} - 44441492181202266150\,u_1{}^{12}u^{69} - \tfrac{375297611663917800}{7}\,u_1{}^{6}u^{69} - \tfrac{1705898234835990}{7}\,u_1{}^{3}u^{69} - \tfrac{12950959866768}{5}\,u_1{}^{54}u^{69} - 157412281202154478 5\,u_1{}^{42}u^{69} - 29779551204\,u_1{}^{57}u^{69} - 197942316\,u_1{}^{60}u^{69} - \tfrac{14807}{14}\,u_1{}^{66}u^{69} - \tfrac{18890539061868045}{4}\,u_1{}^{48}u^{69} - 4805969897807434096 65\,u_1{}^{33}u^{69} - \tfrac{67}{140}\,u_1{}^{69}u^{69})x^{70} + (-\tfrac{10030477658759532975}{142}\,u^{70}u_1{}^{46} - \tfrac{84651000513087937 5}{284}\,u^{70}u_1{}^{49} - \tfrac{73967}{142}\,u^{70}u_1{}^{67} - \tfrac{52163938209824442424500}{71}\,u^{70}u_1{}^{16} - \tfrac{187277958389603250}{71}\,u^{70}u_1{}^{4} - \tfrac{59435959098160670896 5525}{142}\,u^{70}u_1{}^{22} - \tfrac{24910600}{71}\,u^{70}u_1{}^{64} - \tfrac{30949525709888503433625}{71}\,u^{70}u_1{}^{34} - \tfrac{62545367628905249320 05}{71}\,u^{70}u_1{}^{37} - \tfrac{342545024229525}{142}\,u^{70}u_1{} - \tfrac{21992440043505583080}{71}\,u^{70}u_1{}^{7} - \tfrac{1158025972740}{71}\,u^{70}u_1{}^{58} - \tfrac{105115525936176}{71}\,u^{70}u_1{}^{55} - \tfrac{10301364118776473182 4400}{71}\,u^{70}u_1{}^{31} - \tfrac{32704553724707004024 7485}{71}\,u^{70}u_1{}^{25} - \tfrac{70462752085920006813 0}{71}\,u^{70}u_1{}^{10} - \tfrac{79673624721422706975}{71}\,u^{70}u_1{}^{43} - \tfrac{88169798612547042352 50}{71}\,u^{70}u_1{}^{13} - \tfrac{85660901388736436910}{71}\,u^{70}u_1{}^{40} - \tfrac{7404617220}{71}\,u^{70}u_1{}^{61} - \tfrac{5886339064971057}{71}\,u^{70}u_1{}^{52} - \tfrac{22757260050456248158 3800}{71}\,u^{70}u_1{}^{28} - \tfrac{16414618383651819768 9375}{71}\,u^{70}u_1{}^{19} - \tfrac{65}{284}\,u_1{}^{70}u^{70})x^{71})$$

The formal group law $F_C(x,y)$ over $W(\mathbb{F}_4)[\![u_1]\!][u,\frac{1}{u}]$ equals

$$x + y$$

$$-u_1u(x)(y)$$

$$-2\,u^3x^3(y) - 3\,u^3x^2y^2 - 2\,u^3(x)y^3$$

$$-2\,u_1u^4x^4(y) - u_1u^4x^3y^2 - u_1u^4x^2y^3 - 2\,u_1u^4(x)y^4$$

$$-2\,u^5u_1{}^2x^5(y) - u^5u_1{}^2x^4y^2 - u^5u_1{}^2x^3y^3 - u^5u_1{}^2x^2y^4 - 2\,u^5u_1{}^2(x)y^5$$

$$-2\,u^6u_1{}^3x^6(y) - 2\,u^6x^6(y) - u^6u_1{}^3x^5y^2 + 4\,u^6x^4y^3 - u^6u_1{}^3x^4y^3 - u^6u_1{}^3x^3y^4 + 4\,u^6x^3y^4 - u^6u_1{}^3x^2y^5 - 2\,u^6(x)y^6 - 2\,u^6u_1{}^3(x)y^6$$

$$-6\,u^7u_1x^7(y) - 2\,u^7u_1{}^4x^7(y) - u^7u_1{}^4x^6y^2 - u^7u_1x^6y^2 + 4\,u^7u_1x^5y^3 - u^7u_1{}^4x^5y^3 + 5\,u^7u_1x^4y^4 - u^7u_1{}^4x^4y^4 - u^7u_1{}^4x^3y^5 + 4\,u^7u_1x^3y^5 - u^7u_1x^2y^6 - u^7u_1{}^4x^2y^6 - 6\,u^7u_1(x)y^7 - 2\,u^7u_1{}^4(x)y^7$$

$$-12\,u^8u_1{}^2x^8(y) - 2\,u^8u_1{}^5x^8(y) - 3\,u^8u_1{}^2x^7y^2 - u^8u_1{}^5x^7y^2 - u^8u_1{}^5x^6y^3 + 3\,u^8u_1{}^2x^6y^3 - u^8u_1{}^5x^5y^4 + 5\,u^8u_1{}^2x^5y^4 + 5\,u^8u_1{}^2x^4y^5 - u^8u_1{}^5x^4y^5 + 3\,u^8u_1{}^2x^3y^6 - u^8u_1{}^5x^3y^6 - 3\,u^8u_1{}^2x^2y^7 - u^8u_1{}^5x^2y^7 - 12\,u^8u_1{}^2(x)y^8 - 2\,u^8u_1{}^5(x)y^8$$

$$-20\,u^9u_1{}^3x^9(y) - 4\,u^9x^9(y) - 2\,u^9u_1{}^6x^9(y) - 6\,u^9u_1{}^3x^8y^2 - u^9u_1{}^6x^8y^2 + 4\,u^9x^7y^3 + u^9u_1{}^3x^7y^3 - u^9u_1{}^6x^7y^3 - u^9u_1{}^6x^6y^4 - u^9x^6y^4 + 4\,u^9u_1{}^3x^6y^4 - 6\,u^9x^5y^5 - u^9u_1{}^6x^5y^5 + 5\,u^9u_1{}^3x^5y^5 - u^9u_1{}^6x^4y^6 + 4\,u^9u_1{}^3x^4y^6 - u^9x^4y^6 + u^9u_1{}^3x^3y^7 + 4\,u^9x^3y^7 - u^9u_1{}^6x^3y^7 - u^9u_1{}^6x^2y^8 - 6\,u^9u_1{}^3x^2y^8 - 20\,u^9u_1{}^3(x)y^9 - 4\,u^9(x)y^9 - 2\,u^9u_1{}^6(x)y^9$$

$$-2\,u_1{}^7u^{10}x^{10}(y) - 20\,u^{10}u_1x^{10}(y) - 30\,u^{10}u_1{}^4x^{10}(y) - 10\,u^{10}u_1{}^4x^9y^2 - u_1{}^7u^{10}x^9y^2 - 2\,u^{10}u_1x^9y^2 - 2\,u^{10}u_1{}^4x^8y^3 - u_1{}^7u^{10}x^8y^3 + 12\,u^{10}u_1x^8y^3 - u_1{}^7u^{10}x^7y^4 + 3\,u^{10}u_1x^7y^4 + 2\,u^{10}u_1{}^4x^7y^4 - u_1{}^7u^{10}x^6y^5 - 9\,u^{10}u_1x^6y^5 + 4\,u^{10}u_1{}^4x^6y^5 - 9\,u^{10}u_1x^5y^6 - u_1{}^7u^{10}x^5y^6 + 4\,u^{10}u_1{}^4x^5y^6 - u_1{}^7u^{10}x^4y^7 + 3\,u^{10}u_1x^4y^7 + 2\,u^{10}u_1{}^4x^4y^7 + 12\,u^{10}u_1x^3y^8 - 2\,u^{10}u_1{}^4x^3y^8 - u_1{}^7u^{10}x^3y^8 - 10\,u^{10}u_1{}^4x^2y^9 - 2\,u^{10}u_1x^2y^9 - u_1{}^7u^{10}x^2y^9 - 20\,u^{10}u_1(x)y^{10} - 2\,u_1{}^7u^{10}(x)y^{10} - 30\,u^{10}u_1{}^4(x)y^{10}$$

$$-42\,u^{11}u_1{}^5x^{11}(y) - 2\,u^{11}u_1{}^8x^{11}(y) - 60\,u^{11}u_1{}^2x^{11}(y) - u^{11}u_1{}^8x^{10}y^2 - 15\,u^{11}u_1{}^5x^{10}y^2 - 10\,u^{11}u_1{}^2x^{10}y^2 - 6\,u^{11}u_1{}^5x^9y^3 + 22\,u^{11}u_1{}^2x^9y^3 - u^{11}u_1{}^8x^9y^3 - u^{11}u_1{}^5x^8y^4 + 12\,u^{11}u_1{}^2x^8y^4 - u^{11}u_1{}^8x^8y^4 + 2\,u^{11}u_1{}^5x^7y^5 - u^{11}u_1{}^8x^7y^5 - 7\,u^{11}u_1{}^2x^7y^5 + 3\,u^{11}u_1{}^5x^6y^6 - 15\,u^{11}u_1{}^2x^6y^6 - u^{11}u_1{}^8x^6y^6 - 7\,u^{11}u_1{}^2x^5y^7 + 2\,u^{11}u_1{}^5x^5y^7 - u^{11}u_1{}^8x^5y^7 - u^{11}u_1{}^8x^4y^8 + 12\,u^{11}u_1{}^2x^4y^8 - u^{11}u_1{}^5x^4y^8 + 22\,u^{11}u_1{}^2x^3y^9 - u^{11}u_1{}^8x^3y^9 - 6\,u^{11}u_1{}^5x^3y^9 - 15\,u^{11}u_1{}^5x^2y^{10} - 10\,u^{11}u_1{}^2x^2y^{10} - u^{11}u_1{}^8x^2y^{10} - 42\,u^{11}u_1{}^5(x)y^{11} - 2\,u^{11}u_1{}^8(x)y^{11} - 60\,u^{11}u_1{}^2(x)y^{11}$$

$$-56\,u^{12}u_1{}^6x^{12}(y) - 10\,u^{12}x^{12}(y) - 2\,u_1{}^9u^{12}x^{12}(y) - 140\,u^{12}u_1{}^3x^{12}(y) - 21\,u^{12}u_1{}^6x^{11}y^2 - u_1{}^9u^{12}x^{11}y^2 - 30\,u^{12}u_1{}^3x^{11}y^2 - u_1{}^9u^{12}x^{10}y^3 - 11\,u^{12}u_1{}^6x^{10}y^3 + 8\,u^{12}x^{10}y^3 + 30\,u^{12}u_1{}^3x^{10}y^3 - 2\,u^{12}x^9y^4 - u_1{}^9u^{12}x^9y^4 - 5\,u^{12}u_1{}^6x^9y^4 + 24\,u^{12}u_1{}^3x^9y^4 - 6\,u^{12}x^8y^5 - u_1{}^9u^{12}x^8y^5 - u^{12}u_1{}^6x^8y^5 + u^{12}u_1{}^6x^7y^6 - 17\,u^{12}u_1{}^3x^7y^6 - u_1{}^9u^{12}x^7y^6 + 6\,u^{12}x^7y^6 - u_1{}^9u^{12}x^6y^7 - 17\,u^{12}u_1{}^3x^6y^7 + 6\,u^{12}x^6y^7 + u^{12}u_1{}^6x^6y^7 - 6\,u^{12}x^5y^8 - u^{12}u_1{}^6x^5y^8 - u_1{}^9u^{12}x^5y^8 - 5\,u^{12}u_1{}^6x^4y^9 - 2\,u^{12}x^4y^9 - u_1{}^9u^{12}x^4y^9 + 24\,u^{12}u_1{}^3x^4y^9 + 8\,u^{12}x^3y^{10} - u_1{}^9u^{12}x^3y^{10} + 30\,u^{12}u_1{}^3x^3y^{10} - 11\,u^{12}u_1{}^6x^3y^{10} - 21\,u^{12}u_1{}^6x^2y^{11} - 30\,u^{12}u_1{}^3x^2y^{11} - u_1{}^9u^{12}x^2y^{11} - 2\,u_1{}^9u^{12}(x)y^{12} - 56\,u^{12}u_1{}^6(x)y^{12} - 10\,u^{12}(x)y^{12} - 140\,u^{12}u_1{}^3(x)y^{12}$$

$$-72\,u_1{}^7u^{13}x^{13}(y) - 70\,u^{13}u_1x^{13}(y) - 2\,u_1{}^{10}u^{13}x^{13}(y) - 280\,u^{13}u_1{}^4x^{13}(y) - u_1{}^{10}u^{13}x^{12}y^2 - 70\,u^{13}u_1{}^4x^{12}y^2 - 5\,u^{13}u_1x^{12}y^2 - 28\,u_1{}^7u^{13}x^{12}y^2 + 40\,u^{13}u_1x^{11}y^3 - u_1{}^{10}u^{13}x^{11}y^3 + 30\,u^{13}u_1{}^4x^{11}y^3 - 17\,u_1{}^7u^{13}x^{11}y^3 + 35\,u^{13}u_1{}^4x^{10}y^4 - u_1{}^{10}u^{13}x^{10}y^4 + 2\,u^{13}u_1x^{10}y^4 - 10\,u_1{}^7u^{13}x^{10}y^4 + 10\,u^{13}u_1{}^4x^9y^5 - 5\,u_1{}^7u^{13}x^9y^5 - u_1{}^{10}u^{13}x^9y^5 - 24\,u^{13}u_1x^9y^5 + 3\,u^{13}u_1x^8y^6 - 2\,u_1{}^7u^{13}x^8y^6 - u_1{}^{10}u^{13}x^8y^6 - 15\,u^{13}u_1{}^4x^8y^6 - u_1{}^7u^{13}x^7y^7 - 25\,u^{13}u_1{}^4x^7y^7 - u_1{}^{10}u^{13}x^7y^7 + 24\,u^{13}u_1x^7y^7 - 15\,u^{13}u_1{}^4x^6y^8 - 2\,u_1{}^7u^{13}x^6y^8 - u_1{}^{10}u^{13}x^6y^8 + 3\,u^{13}u_1x^6y^8 - 24\,u^{13}u_1x^5y^9 - 5\,u_1{}^7u^{13}x^5y^9 - u_1{}^{10}u^{13}x^5y^9 + 10\,u^{13}u_1{}^4x^5y^9 + 35\,u^{13}u_1{}^4x^4y^{10} + 2\,u^{13}u_1x^4y^{10} - u_1{}^{10}u^{13}x^4y^{10} - 10\,u_1{}^7u^{13}x^4y^{10} + 40\,u^{13}u_1x^3y^{11} - u_1{}^{10}u^{13}x^3y^{11} + 30\,u^{13}u_1{}^4x^3y^{11} - 17\,u_1{}^7u^{13}x^3y^{11} - u_1{}^{10}u^{13}x^2y^{12} - 70\,u^{13}u_1{}^4x^2y^{12} - 28\,u_1{}^7u^{13}x^2y^{12} - 5\,u^{13}u_1x^2y^{12} - 72\,u_1{}^7u^{13}(x)y^{13} - 280\,u^{13}u_1{}^4(x)y^{13} - 2\,u_1{}^{10}u^{13}(x)y^{13} - 70\,u^{13}u_1(x)y^{13}$$

$$-504\,u^{14}u_1{}^5x^{14}(y) - 90\,u_1{}^8u^{14}x^{14}(y) - 280\,u^{14}u_1{}^2x^{14}(y) - 2\,u_1{}^{11}u^{14}x^{14}(y) - 35\,u^{14}u_1{}^2x^{13}y^2 - 140\,u^{14}u_1{}^5x^{13}y^2 - 36\,u_1{}^8u^{14}x^{13}y^2 - u_1{}^{11}u^{14}x^{13}y^2 - 24\,u_1{}^8u^{14}x^{12}y^3 + 115\,u^{14}u_1{}^2x^{12}y^3 + 14\,u^{14}u_1{}^5x^{12}y^3 - u_1{}^{11}u^{14}x^{12}y^3 - u_1{}^{11}u^{14}x^{11}y^4 - 16\,u_1{}^8u^{14}x^{11}y^4 + 39\,u^{14}u_1{}^5x^{11}y^4 + 30\,u^{14}u_1{}^2x^{11}y^4 + 19\,u^{14}u_1{}^5x^{10}y^5 - u_1{}^{11}u^{14}x^{10}y^5 - 10\,u_1{}^8u^{14}x^{10}y^5 - 50\,u^{14}u_1{}^2x^{10}y^5 - 11\,u^{14}u_1{}^5x^9y^6 - 21\,u^{14}u_1{}^2x^9y^6 - 6\,u_1{}^8u^{14}x^9y^6 - u_1{}^{11}u^{14}x^9y^6 - 31\,u^{14}u_1{}^5x^8y^7 - u_1{}^{11}u^{14}x^8y^7 + 35\,u^{14}u_1{}^2x^8y^7 - 4\,u_1{}^8u^{14}x^8y^7 - 4\,u_1{}^8u^{14}x^7y^8 - u_1{}^{11}u^{14}x^7y^8 + 35\,u^{14}u_1{}^2x^7y^8 - 31\,u^{14}u_1{}^5x^7y^8 - u_1{}^{11}u^{14}x^6y^9 - 21\,u^{14}u_1{}^2x^6y^9 - 11\,u^{14}u_1{}^5x^6y^9 - 6\,u_1{}^8u^{14}x^6y^9 - 50\,u^{14}u_1{}^2x^5y^{10} - u_1{}^{11}u^{14}x^5y^{10} - 10\,u_1{}^8u^{14}x^5y^{10} + 19\,u^{14}u_1{}^5x^5y^{10} - 16\,u_1{}^8u^{14}x^4y^{11} + 30\,u^{14}u_1{}^2x^4y^{11} - u_1{}^{11}u^{14}x^4y^{11} + 39\,u^{14}u_1{}^5x^4y^{11} + 14\,u^{14}u_1{}^5x^3y^{12} - 24\,u_1{}^8u^{14}x^3y^{12} - u_1{}^{11}u^{14}x^3y^{12} + 115\,u^{14}u_1{}^2x^3y^{12} - u_1{}^{11}u^{14}x^2y^{13} - 36\,u_1{}^8u^{14}x^2y^{13} - 140\,u^{14}u_1{}^5x^2y^{13} - 35\,u^{14}u_1{}^2x^2y^{13} - 90\,u_1{}^8u^{14}(x)y^{14} - 280\,u^{14}u_1{}^2(x)y^{14} - 504\,u^{14}u_1{}^5(x)y^{14} - 2\,u_1{}^{11}u^{14}(x)y^{14}$$

$$-110\,u_1{}^9u^{15}x^{15}(y) - 840\,u^{15}u_1{}^3x^{15}(y) - 2\,u_1{}^{12}u^{15}x^{15}(y) - 840\,u^{15}u_1{}^6x^{15}(y) - 28\,u^{15}x^{15}(y) - 140\,u^{15}u_1{}^3x^{14}y^2 - 252\,u^{15}u_1{}^6x^{14}y^2 - u_1{}^{12}u^{15}x^{14}y^2 - 45\,u_1{}^9u^{15}x^{14}y^2 + 245\,u^{15}u_1{}^3x^{13}y^3 + 20\,u^{15}x^{13}y^3 - 28\,u^{15}u_1{}^6x^{13}y^3 - 32\,u_1{}^9u^{15}x^{13}y^3 - u_1{}^{12}u^{15}x^{13}y^3 + 28\,u^{15}u_1{}^6x^{12}y^4 - u_1{}^{12}u^{15}x^{12}y^4 - 5\,u^{15}x^{12}y^4 + 105\,u^{15}u_1{}^3x^{12}y^4 - 23\,u_1{}^9u^{15}x^{12}y^4 - 16\,u_1{}^9u^{15}x^{11}y^5 + 21\,u^{15}u_1{}^6x^{11}y^5 - 12\,u^{15}x^{11}y^5 - u_1{}^{12}u^{15}x^{11}y^5 - 70\,u^{15}u_1{}^3x^{11}y^5 - u_1{}^{12}u^{15}x^{10}y^6 - 11\,u_1{}^9u^{15}x^{10}y^6 - 9\,u^{15}u_1{}^6x^{10}y^6 + 12\,u^{15}x^{10}y^6 - 70\,u^{15}u_1{}^3x^{10}y^6 + 4\,u^{15}x^9y^7 + 19\,u^{15}u_1{}^3x^9y^7 - 8\,u_1{}^9u^{15}x^9y^7 - 37\,u^{15}u_1{}^6x^9y^7 - u_1{}^{12}u^{15}x^9y^7 - u_1{}^{12}u^{15}x^8y^8 - 48\,u^{15}u_1{}^6x^8y^8 - 7\,u_1{}^9u^{15}x^8y^8 - 15\,u^{15}x^8y^8 + 67\,u^{15}u_1{}^3x^8y^8 - 8\,u_1{}^9u^{15}x^7y^9 + 19\,u^{15}u_1{}^3x^7y^9 - u_1{}^{12}u^{15}x^7y^9 + 4\,u^{15}x^7y^9 - 37\,u^{15}u_1{}^6x^7y^9 - 9\,u^{15}u_1{}^6x^6y^{10} - 70\,u^{15}u_1{}^3x^6y^{10} + 12\,u^{15}x^6y^{10} - 11\,u_1{}^9u^{15}x^6y^{10} - u_1{}^{12}u^{15}x^6y^{10} + 21\,u^{15}u_1{}^6x^5y^{11} - 16\,u_1{}^9u^{15}x^5y^{11} - 70\,u^{15}u_1{}^3x^5y^{11} - 12\,u^{15}x^5y^{11} - u_1{}^{12}u^{15}x^5y^{11} - 23\,u_1{}^9u^{15}x^4y^{12} - u_1{}^{12}u^{15}x^4y^{12} + 28\,u^{15}u_1{}^6x^4y^{12} - 5\,u^{15}x^4y^{12} + 105\,u^{15}u_1{}^3x^4y^{12} - 32\,u_1{}^9u^{15}x^3y^{13} + 245\,u^{15}u_1{}^3x^3y^{13} - 28\,u^{15}u_1{}^6x^3y^{13} + 20\,u^{15}x^3y^{13} - u_1{}^{12}u^{15}x^3y^{13} - u_1{}^{12}u^{15}x^2y^{14} - 140\,u^{15}u_1{}^3x^2y^{14} - 45\,u_1{}^9u^{15}x^2y^{14} - 252\,u^{15}u_1{}^6x^2y^{14} - 840\,u^{15}u_1{}^3(x)y^{15} - 110\,u_1{}^9u^{15}(x)y^{15} - 2\,u_1{}^{12}u^{15}(x)y^{15} - 840\,u^{15}u_1{}^6(x)y^{15} - 28\,u^{15}(x)y^{15}$$

Some values of the n-series for $F_C(x,y)$ over $W(\mathbb{F}_4)[\![u_1]\!][u,\frac{1}{u}]$ are:

$$[2]_C(x) = (2\,x - u_1 u x^2 - 7\,u^3 x^4 - 6\,u_1 u^4 x^5 - 7\,u^5 {u_1}^2 x^6 + (-8\,u^6 {u_1}^3 + 4\,u^6) x^7 + (-9\,u^7 {u_1}^4 - u^7 u_1) x^8 + (-10\,u^8 {u_1}^5 - 14\,u^8 {u_1}^2) x^9 + (-8\,u^9 - 11\,u^9 {u_1}^6 - 37\,u^9 {u_1}^3) x^{10} + (-72\,u^{10} {u_1}^4 - 12\,{u_1}^7 u^{10} - 32\,u^{10} u_1) x^{11} + (-101\,u^{11} {u_1}^2 - 13\,u^{11} {u_1}^8 - 121\,u^{11} {u_1}^5) x^{12} + (-8\,u^{12} - 14\,{u_1}^9 u^{12} - 266\,u^{12} {u_1}^3 - 186\,u^{12} {u_1}^6) x^{13} + (-15\,{u_1}^{10} u^{13} - 269\,{u_1}^7 u^{13} - 84\,u^{13} u_1 - 605\,u^{13} {u_1}^4) x^{14} + (-16\,{u_1}^{11} u^{14} - 412\,u^{14} {u_1}^2 - 372\,{u_1}^8 u^{14} - 1228\,u^{14} {u_1}^5) x^{15} + (-33\,u^{15} - 1435\,u^{15} {u_1}^3 - 17\,{u_1}^{12} u^{15} - 497\,{u_1}^9 u^{15} - 2282\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[3]_C(x) = (3\,x - 3\,u_1 u x^2 + {u_1}^2 u^2 x^3 - 39\,u^3 x^4 - 9\,u_1 u^4 x^5 - 30\,u^5 {u_1}^2 x^6 + (-36\,u^6 {u_1}^3 + 234\,u^6) x^7 + (-45\,u^7 {u_1}^4 + 189\,u^7 u_1) x^8 + (-55\,u^8 {u_1}^5 + 273\,u^8 {u_1}^2) x^9 + (-1209\,u^9 - 66\,u^9 {u_1}^6 + 297\,u^9 {u_1}^3) x^{10} + (279\,u^{10} {u_1}^4 - 78\,{u_1}^7 u^{10} - 1833\,u^{10} u_1) x^{11} + (-3055\,u^{11} {u_1}^2 - 91\,u^{11} {u_1}^8 + 195\,u^{11} {u_1}^5) x^{12} + (5574\,u^{12} - 105\,{u_1}^9 u^{12} - 4629\,u^{12} {u_1}^3 + 21\,u^{12} {u_1}^6) x^{13} + (-120\,{u_1}^{10} u^{13} - 270\,{u_1}^7 u^{13} + 11592\,u^{13} u_1 - 6855\,u^{13} {u_1}^4) x^{14} + (-136\,{u_1}^{11} u^{14} + 20358\,u^{14} {u_1}^2 - 708\,{u_1}^8 u^{14} - 10145\,u^{14} {u_1}^5) x^{15} + (-24759\,u^{15} + 29937\,u^{15} {u_1}^3 - 153\,{u_1}^{12} u^{15} - 1326\,{u_1}^9 u^{15} - 15156\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[4]_C(x) = (4\,x - 6\,u_1 u x^2 + 4\,{u_1}^2 u^2 x^3 + (-{u_1}^3 u^3 - 126\,u^3) x^4 + 48\,u_1 u^4 x^5 - 140\,u^5 {u_1}^2 x^6 + (-104\,u^6 {u_1}^3 + 2088\,u^6) x^7 + (-167\,u^7 {u_1}^4 + 237\,u^7 u_1) x^8 + (2740\,u^8 {u_1}^2 - 220\,u^8 {u_1}^5) x^9 + (-29880\,u^9 - 286\,u^9 {u_1}^6 + 2706\,u^9 {u_1}^3) x^{10} + (3780\,u^{10} {u_1}^4 - 364\,{u_1}^7 u^{10} - 20256\,u^{10} u_1) x^{11} + (-62690\,u^{11} {u_1}^2 - 455\,u^{11} {u_1}^8 + 4547\,u^{11} {u_1}^5) x^{12} + (390456\,u^{12} - 560\,{u_1}^9 u^{12} - 89536\,u^{12} {u_1}^3 + 5208\,u^{12} {u_1}^6) x^{13} + (-680\,{u_1}^{10} u^{13} + 5568\,{u_1}^7 u^{13} + 463044\,u^{13} u_1 - 142692\,u^{13} {u_1}^4) x^{14} + (-816\,{u_1}^{11} u^{14} + 1169824\,u^{14} {u_1}^2 + 5440\,{u_1}^8 u^{14} - 213232\,u^{14} {u_1}^5) x^{15} + (-4863177\,u^{15} + 1905463\,u^{15} {u_1}^3 - 969\,{u_1}^{12} u^{15} + 4590\,{u_1}^9 u^{15} - 312413\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[5]_C(x) = (5\,x - 10\,u_1 u x^2 + 10\,{u_1}^2 u^2 x^3 + (-310\,u^3 - 5\,{u_1}^3 u^3) x^4 + ({u_1}^4 u^4 + 306\,u_1 u^4) x^5 - 620\,u^5 {u_1}^2 x^6 + (-90\,u^6 {u_1}^3 + 10540\,u^6) x^7 + (-585\,u^7 {u_1}^4 - 7075\,u^7 u_1) x^8 + (-695\,u^8 {u_1}^5 + 21935\,u^8 {u_1}^2) x^9 + (-311240\,u^9 - 1003\,u^9 {u_1}^6 + 5612\,u^9 {u_1}^3) x^{10} + (24530\,u^{10} {u_1}^4 - 1365\,{u_1}^7 u^{10} + 87550\,u^{10} u_1) x^{11} + (-805940\,u^{11} {u_1}^2 - 1820\,u^{11} {u_1}^8 + 26845\,u^{11} {u_1}^5) x^{12} + (8438200\,u^{12} - 2380\,{u_1}^9 u^{12} - 548200\,u^{12} {u_1}^3 + 37555\,u^{12} {u_1}^6) x^{13} + (-3060\,{u_1}^{10} u^{13} + 47215\,{u_1}^7 u^{13} + 528150\,u^{13} u_1 - 1501030\,u^{13} {u_1}^4) x^{14} + (-3876\,{u_1}^{11} u^{14} + 26457790\,u^{14} {u_1}^2 + 57735\,{u_1}^8 u^{14} - 2135724\,u^{14} {u_1}^5) x^{15} + (-218094765\,u^{15} + 25774465\,u^{15} {u_1}^3 - 4845\,{u_1}^{12} u^{15} + 67830\,{u_1}^9 u^{15} - 3471055\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[6]_C(x) = (6\,x - 15\,u_1 u x^2 + 20\,{u_1}^2 u^2 x^3 + (-15\,{u_1}^3 u^3 - 645\,u^3) x^4 + (6\,{u_1}^4 u^4 + 1026\,u_1 u^4) x^5 + (-{u_1}^5 u^5 - 2211\,u^5 {u_1}^2) x^6 + (780\,u^6 {u_1}^3 + 38700\,u^6) x^7 + (-2277\,u^7 {u_1}^4 - 57222\,u^7 u_1) x^8 + (-1562\,u^8 {u_1}^5 + 142188\,u^8 {u_1}^2) x^9 + (-2022720\,u^9 - 3135\,u^9 {u_1}^6 - 65250\,u^9 {u_1}^3) x^{10} + (172404\,u^{10} {u_1}^4 - 4344\,{u_1}^7 u^{10} + 2591808\,u^{10} u_1) x^{11} + (-8639234\,u^{11} {u_1}^2 - 6190\,u^{11} {u_1}^8 + 66336\,u^{11} {u_1}^5) x^{12} + (97286640\,u^{12} - 8568\,{u_1}^9 u^{12} + 2569668\,u^{12} {u_1}^3 + 200280\,u^{12} {u_1}^6) x^{13} + (-11628\,{u_1}^{10} u^{13} + 233172\,{u_1}^7 u^{13} - 109851624\,u^{13} u_1 - 15109854\,u^{13} {u_1}^4) x^{14} + (-15504\,{u_1}^{11} u^{14} + 471256200\,u^{14} {u_1}^2 + 328032\,{u_1}^8 u^{14} - 9995504\,u^{14} {u_1}^5) x^{15} + (-4462431210\,u^{15} - 94442667\,u^{15} {u_1}^3 - 20349\,{u_1}^{12} u^{15} + 423963\,{u_1}^9 u^{15} - 27801270\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[7]_C(x) = (7\,x - 21\,u_1 u x^2 + 35\,{u_1}^2 u^2 x^3 + (-35\,{u_1}^3 u^3 - 1197\,u^3) x^4 + (21\,{u_1}^4 u^4 + 2625\,u_1 u^4) x^5 + (-7\,{u_1}^5 u^5 - 6454\,u^5 {u_1}^2) x^6 + ({u_1}^6 u^6 + 5018\,u^6 {u_1}^3 + 115254\,u^6) x^7 + (-8995\,u^7 {u_1}^4 - 264432\,u^7 u_1) x^8 + (-1001\,u^8 {u_1}^5 + 706580\,u^8 {u_1}^2) x^9 + (-9682533\,u^9 - 10010\,u^9 {u_1}^6 - 731976\,u^9 {u_1}^3) x^{10} + (1240722\,u^{10} {u_1}^4 - 11648\,{u_1}^7 u^{10} + 22250193\,u^{10} u_1) x^{11} + (-69989122\,u^{11} {u_1}^2 - 18746\,u^{11} {u_1}^8 - 430220\,u^{11} {u_1}^5) x^{12} + (749401002\,u^{12} - 27104\,{u_1}^9 u^{12} + 75761266\,u^{12} {u_1}^3 + 1257396\,u^{12} {u_1}^6) x^{13} + (-38762\,{u_1}^{10} u^{13} + 622986\,{u_1}^7 u^{13} - 1760104938\,u^{13} u_1 - 164699172\,u^{13} {u_1}^4) x^{14} + (-54264\,{u_1}^{11} u^{14} + 6227126234\,u^{14} {u_1}^2 + 1560034\,{u_1}^8 u^{14} + 52632552\,u^{14} {u_1}^5) x^{15} + (-55327978188\,u^{15} - 7341189373\,u^{15} {u_1}^3 - 74613\,{u_1}^{12} u^{15} + 1892457\,{u_1}^9 u^{15} - 250071990\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[8]_C(x) = (8\,x - 28\,u_1 u x^2 + 56\,{u_1}^2 u^2 x^3 + (-70\,{u_1}^3 u^3 - 2044\,u^3) x^4 + (56\,{u_1}^4 u^4 + 5712\,u_1 u^4) x^5 + (-28\,{u_1}^5 u^5 - 16128\,u^5 {u_1}^2) x^6 + (8\,{u_1}^6 u^6 + 18752\,u^6 {u_1}^3 + 295504\,u^6) x^7 + (-{u_1}^7 u^7 - 32010\,u^7 {u_1}^4 -$$

$$920170\,u^7 u_1) x^8 + (2796192\,u^8 {u_1}^2 + 11424\,u^8 {u_1}^5) x^9 + (-37309424\,u^9 - 35464\,u^9 {u_1}^6 - 4286896\,u^9 {u_1}^3) x^{10} + (7434352\,u^{10} {u_1}^4 - 23088\,{u_1}^7 u^{10} + 123960160\,u^{10} u_1) x^{11} + (-428699192\,u^{11} {u_1}^2 - 54028\,u^{11} {u_1}^8 - 6409884\,u^{11} {u_1}^5) x^{12} + (4342557424\,u^{12} - 76400\,{u_1}^9 u^{12} + 736724832\,u^{12} {u_1}^3 + 9420432\,u^{12} {u_1}^6) x^{13} + (-116520\,{u_1}^{10} u^{13} - 2528376\,{u_1}^7 u^{13} - 15553050840\,u^{13} u_1 - 1512079968\,u^{13} {u_1}^4) x^{14} + (-170512\,{u_1}^{11} u^{14} + 59038991664\,u^{14} {u_1}^2 + 8957008\,{u_1}^8 u^{14} + 1512994848\,u^{14} {u_1}^5) x^{15} + (-482217152514\,u^{15} - 114496686531\,u^{15} {u_1}^3 - 245159\,{u_1}^{12} u^{15} + 5263141\,{u_1}^9 u^{15} - 2752995756\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[9]_C(x) = (9\,x - 36\,u_1 u x^2 + 84\,{u_1}^2 u^2 x^3 + (-126\,{u_1}^3 u^3 - 3276\,u^3) x^4 + (126\,{u_1}^4 u^4 + 11124\,u_1 u^4) x^5 + (-35784\,u^5 {u_1}^2 - 84\,{u_1}^5 u^5) x^6 + (54612\,u^6 {u_1}^3 + 36\,{u_1}^6 u^6 + 676728\,u^6) x^7 + (-9\,{u_1}^7 u^7 - 99414\,u^7 {u_1}^4 - 2663226\,u^7 u_1) x^8 + ({u_1}^8 u^8 + 72726\,u^8 {u_1}^5 + 9253530\,u^8 {u_1}^2) x^9 + (-122152680\,u^9 - 131256\,u^9 {u_1}^6 - 18415404\,u^9 {u_1}^3) x^{10} + (35817984\,u^{10} {u_1}^4 - 11934\,{u_1}^7 u^{10} + 531512748\,u^{10} u_1) x^{11} + (-2084963556\,u^{11} {u_1}^2 - 163098\,u^{11} {u_1}^8 - 44981352\,u^{11} {u_1}^5) x^{12} + (20334445776\,u^{12} - 186354\,{u_1}^9 u^{12} + 4753812996\,u^{12} {u_1}^3 + 64110096\,u^{12} {u_1}^6) x^{13} + (-325890\,{u_1}^{10} u^{13} - 49265658\,{u_1}^7 u^{13} - 98043825276\,u^{13} u_1 - 10753957008\,u^{13} {u_1}^4) x^{14} + (-488682\,{u_1}^{11} u^{14} + 421478332956\,u^{14} {u_1}^2 + 67895010\,{u_1}^8 u^{14} + 16003982016\,u^{14} {u_1}^5) x^{15} + (-3229780213962\,u^{15} - 1092475698975\,u^{15} {u_1}^3 - 735777\,{u_1}^{12} u^{15} - 14030523\,{u_1}^9 u^{15} - 27321889896\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[10]_C(x) = (10\,x - 45\,u_1 u x^2 + 120\,{u_1}^2 u^2 x^3 + (-4995\,u^3 - 210\,{u_1}^3 u^3) x^4 + (252\,{u_1}^4 u^4 + 19962\,u_1 u^4) x^5 + (-210\,{u_1}^5 u^5 - 72375\,u^5 {u_1}^2) x^6 + (120\,{u_1}^6 u^6 + 135840\,u^6 {u_1}^3 + 1418580\,u^6) x^7 + (-45\,{u_1}^7 u^7 - 272265\,u^7 {u_1}^4 - 6749775\,u^7 u_1) x^8 + (10\,{u_1}^8 u^8 + 26622390\,u^8 {u_1}^2 + 285990\,u^8 {u_1}^5) x^9 + (-{u_1}^9 u^9 - 352167480\,u^9 - 461643\,u^9 {u_1}^6 - 64587087\,u^9 {u_1}^3) x^{10} + (142960680\,u^{10} {u_1}^4 + 167940\,{u_1}^7 u^{10} + 1895500800\,u^{10} u_1) x^{11} + (-8440690335\,u^{11} {u_1}^2 - 545870\,u^{11} {u_1}^8 - 228084645\,u^{11} {u_1}^5) x^{12} + (80647871400\,u^{12} - 342380\,{u_1}^9 u^{12} + 23676063450\,u^{12} {u_1}^3 + 358394190\,u^{12} {u_1}^6) x^{13} + (-894710\,{u_1}^{10} u^{13} - 398897265\,{u_1}^7 u^{13} - 489190967100\,u^{13} u_1 - 60753485115\,u^{13} {u_1}^4) x^{14} + (-1276496\,{u_1}^{11} u^{14} + 2396567763660\,u^{14} {u_1}^2 + 506904232\,{u_1}^8 u^{14} + 115064026788\,u^{14} {u_1}^5) x^{15} + (-17622804400155\,u^{15} - 7657644495660\,u^{15} {u_1}^3 - 2052665\,{u_1}^{12} u^{15} - 358906635\,{u_1}^9 u^{15} - 215142338220\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[11]_C(x) = (11\,x - 55\,u_1 u x^2 + 165\,{u_1}^2 u^2 x^3 + (-330\,{u_1}^3 u^3 - 7315\,u^3) x^4 + (462\,{u_1}^4 u^4 + 33627\,u_1 u^4) x^5 + (-462\,u_1 {u_1}^5 u^5 - 135982\,u^5 {u_1}^2) x^6 + (330\,{u_1}^6 u^6 + 301840\,u^6 {u_1}^3 + 2769250\,u^6) x^7 + (-670329\,u^7 {u_1}^4 - 165\,{u_1}^7 u^7 - 15456529\,u^7 u_1) x^8 + (55\,{u_1}^8 u^8 + 896621\,u^8 {u_1}^5 + 68517691\,u^8 {u_1}^2) x^9 + (-11\,{u_1}^9 u^9 - 916629065\,u^9 - 1476332\,u^9 {u_1}^6 - 195292801\,u^9 {u_1}^3) x^{10} + ({u_1}^{10} u^{10} + 489659469\,u^{10} {u_1}^4 + 1057854\,{u_1}^7 u^{10} + 5880231211\,u^{10} u_1) x^{11} + (-29506983869\,u^{11} {u_1}^2 - 1939916\,u^{11} {u_1}^8 - 935403865\,u^{11} {u_1}^5) x^{12} + (279927383230\,u^{12} - 149226\,{u_1}^9 u^{12} + 97695816361\,u^{12} {u_1}^3 + 1659631545\,u^{12} {u_1}^6) x^{13} + (-2600796\,{u_1}^{10} u^{13} - 2312857976\,{u_1}^7 u^{13} - 2046985938228\,u^{13} u_1 - 284070199193\,u^{13} {u_1}^4) x^{14} + (-2927672\,{u_1}^{11} u^{14} + 11356197780950\,u^{14} {u_1}^2 + 3188830876\,{u_1}^8 u^{14} + 643385435693\,u^{14} {u_1}^5) x^{15} + (-81574441827945\,u^{15} - 42866807204716\,u^{15} {u_1}^3 - 5460961\,{u_1}^{12} u^{15} - 3266813792\,{u_1}^9 u^{15} - 1355712749402\,u^{15} {u_1}^6) x^{16} + O(x^{17})$$

$$[12]_C(x) = (12\,x - 66\,u_1 u x^2 + 220\,{u_1}^2 u^2 x^3 + (-10362\,u^3 - 495\,{u_1}^3 u^3) x^4 + (792\,{u_1}^4 u^4 + 53856\,u_1 u^4) x^5 + (-240636\,u^5 {u_1}^2 - 924\,{u_1}^5 u^5) x^6 + (792\,{u_1}^6 u^6 + 615384\,u^6 {u_1}^3 + 5098104\,u^6) x^7 + (-495\,{u_1}^7 u^7 - 1510641\,u^7 {u_1}^4 - 32654853\,u^7 u_1) x^8 + (220\,{u_1}^8 u^8 + 2426468\,u^8 {u_1}^5 + 161102964\,u^8 {u_1}^2) x^9 + (-66\,{u_1}^9 u^9 - 2193469608\,u^9 - 4266966\,u^9 {u_1}^6 - 526402206\,u^9 {u_1}^3) x^{10} + (12\,{u_1}^{10} u^{10} + 1481434308\,u^{10} {u_1}^4 + 4284660\,{u_1}^7 u^{10} + 16338534528\,u^{10} u_1) x^{11} + (-{u_1}^{11} u^{11} - 91552139962\,u^{11} {u_1}^2 - 6760045\,u^{11} {u_1}^8 - 3278385453\,u^{11} {u_1}^5) x^{12} + (870812905512\,u^{12} + 2496120\,{u_1}^9 u^{12} + 348481831632\,u^{12} {u_1}^3 + 6556541376\,u^{12} {u_1}^6) x^{13} + (-8379912\,{u_1}^{10} u^{13} - 10802282580\,{u_1}^7 u^{13} - 7455074373972\,u^{13} u_1 - 1138739412012\,u^{13} {u_1}^4) x^{14} + (-5111152\,{u_1}^{11} u^{14} + 46402093269648\,u^{14} {u_1}^2 + 16688389728\,{u_1}^8 u^{14} +$$

$$2983247616928\,u^{14}{u_1}^5)x^{15} + (-329904370071243\,u^{15} - 201482195243730\,u^{15}{u_1}^3 - 14508837\,{u_1}^{12}u^{15} - 21170612244\,{u_1}^9u^{15} - 7078867489269\,u^{15}{u_1}^6)x^{16} + O(x^{17}))$$

$$[13]_C(x) = (13\,x - 78\,u_1ux^2 + 286\,{u_1}^2u^2x^3 + (-715\,{u_1}^3u^3 - 14274\,u^3)x^4 + (1287\,{u_1}^4u^4 + 82758\,u_1u^4)x^5 + (-1716\,{u_1}^5u^5 - 405236\,u^5{u_1}^2)x^6 + (1716\,{u_1}^6u^6 + 1171690\,u^6{u_1}^3 + 8935524\,u^6)x^7 + (-1287\,{u_1}^7u^7 - 3162575\,u^7{u_1}^4 - 64598469\,u^7u_1)x^8 + (715\,{u_1}^8u^8 + 5893823\,u^8{u_1}^5 + 351540241\,u^8{u_1}^2)x^9 + (-286\,{u_1}^9u^9 - 4892213664\,u^9 - 11238799\,u^9{u_1}^6 - 1293792240\,u^9{u_1}^3)x^{10} + (78\,{u_1}^{10}u^{10} + 4047927858\,u^{10}{u_1}^4 + 14088893\,{u_1}^7u^{10} + 41500827498\,u^{10}u_1)x^{11} + (-13\,{u_1}^{11}u^{11} - 257387736008\,u^{11}{u_1}^2 - 22016800\,u^{11}{u_1}^8 - 10156845439\,u^{11}{u_1}^5)x^{12} + ({u_1}^{12}u^{12} + 2471706469224\,u^{12} + 15600500\,{u_1}^9u^{12} + 1105649303996\,u^{12}{u_1}^3 + 22715053815\,u^{12}{u_1}^6)x^{13} + (-28973074\,{u_1}^{10}u^{13} - 42920605455\,{u_1}^7u^{13} - 24249158321622\,u^{13}u_1 - 4022128681350\,u^{13}{u_1}^4)x^{14} + (-1931540\,{u_1}^{11}u^{14} + 167756507376874\,u^{14}{u_1}^2 + 74359789049\,{u_1}^8u^{14} + 11932374355772\,u^{14}{u_1}^5)x^{15} + (-1191702197147319\,u^{15} - 822486307550180\,u^{15}{u_1}^3 - 41045225\,{u_1}^{12}u^{15} - 110409732108\,{u_1}^9u^{15} - 31638876387443\,u^{15}{u_1}^6)x^{16} + O(x^{17})$$

$$[14]_C(x) = (14\,x - 91\,u_1ux^2 + 364\,{u_1}^2u^2x^3 + (-1001\,{u_1}^3u^3 - 19201\,u^3)x^4 + (2002\,{u_1}^4u^4 + 122850\,u_1u^4)x^5 + (-3003\,{u_1}^5u^5 - 654563\,u^5{u_1}^2)x^6 + (3432\,{u_1}^6u^6 + 2109588\,u^6{u_1}^3 + 15020668\,u^6)x^7 + (-3003\,{u_1}^7u^7 - 6223581\,u^7{u_1}^4 - 120972124\,u^7u_1)x^8 + (2002\,{u_1}^8u^8 + 720487040\,u^8{u_1}^2 + 13155142\,u^8{u_1}^5)x^9 + (-1001\,{u_1}^9u^9 - 10277911280\,u^9 - 27290263\,u^9{u_1}^6 - 2947044100\,u^9{u_1}^3)x^{10} + (364\,{u_1}^{10}u^{10} + 10160981012\,u^{10}{u_1}^4 + 40406184\,{u_1}^7u^{10} + 97823313952\,u^{10}u_1)x^{11} + (-91\,{u_1}^{11}u^{11} - 666118925108\,u^{11}{u_1}^2 - 66028599\,u^{11}{u_1}^8 - 28467270104\,u^{11}{u_1}^5)x^{12} + (14\,{u_1}^{12}u^{12} + 6490121809696\,u^{12} + 64480318\,{u_1}^9u^{12} + 3184816587176\,u^{12}{u_1}^3 + 70561579984\,u^{12}{u_1}^6)x^{13} + (-{u_1}^{13}u^{13} - 100291041\,{u_1}^{10}u^{13} - 149987475728\,{u_1}^7u^{13} - 71788196553936\,u^{13}u_1 - 12783598560268\,u^{13}{u_1}^4)x^{14} + (37442132\,{u_1}^{11}u^{14} + 547270121930896\,u^{14}{u_1}^2 + 289406669188\,{u_1}^8u^{14} + 42304912977600\,u^{14}{u_1}^5)x^{15} + (-3910993905086772\,u^{15} - 2988037963406762\,u^{15}{u_1}^3 - 128707425\,{u_1}^{12}u^{15} - 488911712730\,{u_1}^9u^{15} - 124243639498132\,u^{15}{u_1}^6)x^{16} + O(x^{17}))$$

$$[15]_C(x) = (15\,x - 105\,u_1ux^2 + 455\,{u_1}^2u^2x^3 + (-1365\,{u_1}^3u^3 - 25305\,u^3)x^4 + (3003\,{u_1}^4u^4 + 177093\,u_1u^4)x^5 + (-5005\,{u_1}^5u^5 - 1020390\,u^5{u_1}^2)x^6 + (6435\,{u_1}^6u^6 + 3624990\,u^6{u_1}^3 + 24357870\,u^6)x^7 + (-6435\,{u_1}^7u^7 - 11620215\,u^7{u_1}^4 - 216253350\,u^7u_1)x^8 + (5005\,{u_1}^8u^8 + 27413155\,u^8{u_1}^5 + 1399947990\,u^8{u_1}^2)x^9 + (-3003\,{u_1}^9u^9 - 20509351845\,u^9 - 61770720\,u^9{u_1}^6 - 6297516522\,u^9{u_1}^3)x^{10} + (1365\,{u_1}^{10}u^{10} + 23741889840\,u^{10}{u_1}^4 + 104640420\,{u_1}^7u^{10} + 216433933125\,u^{10}u_1)x^{11} + (-455\,{u_1}^{11}u^{11} - 1606615396760\,u^{11}{u_1}^2 - 182578435\,u^{11}{u_1}^8 - 73407544500\,u^{11}{u_1}^5)x^{12} + (105\,{u_1}^{12}u^{12} + 15937370210850\,u^{12} + 219441435\,{u_1}^9u^{12} + 8457588285000\,u^{12}{u_1}^3 + 199984878660\,u^{12}{u_1}^6)x^{13} + (-15\,{u_1}^{13}u^{13} - 330957810\,{u_1}^{10}u^{13} - 471695948640\,{u_1}^7u^{13} - 196223861229750\,u^{13}u_1 - 37161942772110\,u^{13}{u_1}^4)x^{14} + ({u_1}^{14}u^{14} + 232675758\,{u_1}^{11}u^{14} + 1635890156158410\,u^{14}{u_1}^2 + 1005318241074\,{u_1}^8u^{14} + 135623759303302\,u^{14}{u_1}^5)x^{15} + (-11818787634158670\,u^{15} - 9839465073981960\,u^{15}{u_1}^3 - 436267995\,{u_1}^{12}u^{15} - 1898644428000\,{u_1}^9u^{15} - 437526444803400\,u^{15}{u_1}^6)x^{16} + O(x^{17})$$

$$[16]_C(x) = (16\,x - 120\,u_1ux^2 + 560\,{u_1}^2u^2x^3 + (-1820\,{u_1}^3u^3 - 32760\,u^3)x^4 + (4368\,{u_1}^4u^4 + 248928\,u_1u^4)x^5 + (-8008\,{u_1}^5u^5 - 1542688\,u^5{u_1}^2)x^6 + (11440\,{u_1}^6u^6 + 5986880\,u^6{u_1}^3 + 38282400\,u^6)x^7 + (-12870\,{u_1}^7u^7 - 20739556\,u^7{u_1}^4 - 371444196\,u^7u_1)x^8 + (11440\,{u_1}^8u^8 + 53945824\,u^8{u_1}^5 + 2598044384\,u^8{u_1}^2)x^9 + (-8008\,{u_1}^9u^9 - 39134216160\,u^9 - 131582816\,u^9{u_1}^6 - 12743568528\,u^9{u_1}^3)x^{10} + (4368\,{u_1}^{10}u^{10} + 52176418560\,u^{10}{u_1}^4 + 249855424\,{u_1}^7u^{10} + 453499185984\,u^{10}u_1)x^{11} + (-1820\,{u_1}^{11}u^{11} - 3646795104160\,u^{11}{u_1}^2 - 468731848\,u^{11}{u_1}^8 - 176397754208\,u^{11}{u_1}^5)x^{12} + (560\,{u_1}^{12}u^{12} + 36921668951520\,u^{12} + 657213536\,{u_1}^9u^{12} + 20953377449344\,u^{12}{u_1}^3 + 524257109760\,u^{12}{u_1}^6)x^{13} + (-120\,{u_1}^{13}u^{13} - 1020404224\,{u_1}^{10}u^{13} - 1357820418624\,{u_1}^7u^{13} - 500792841137712\,u^{13}u_1 - 100084568455872\,u^{13}{u_1}^4)x^{14} + (16\,{u_1}^{14}u^{14} + 976322944\,{u_1}^{11}u^{14} + 4535277763682720\,u^{14}{u_1}^2 + 3171332357600\,{u_1}^8u^{14} + 399170949219072\,u^{14}{u_1}^5)x^{15} + (-{u_1}^{15}u^{15} - 33243104271992580\,u^{15} - 29788975663682794\,u^{15}{u_1}^3 - 1502700386\,{u_1}^{12}u^{15} - 6612982197534\,{u_1}^9u^{15} - 1404105242337888\,u^{15}{u_1}^6)x^{16} + O(x^{17})$$

10.2. $F_C(x,y)$ **for the supersingular elliptic curve** $C : y^2 = x^3 - x$ **at** $p = 3$ **over** $\mathbb{F}_9$**.** This is the elliptic curve over $\mathbb{F}_9$ with Weierstrass parameters $\vec{a} = (a_1, a_2, a_3, a_4, a_6) = (0, 0, 0, -1, 0)$.

```
> restart: with(powseries):
> m:=90:
> Order:=m:
> assign({a[1]=0,a[2]=0,a[3]=0,a[4]=-1,a[6]=0});
> z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3;
> simplify(mtaylor(subs(
  w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3,
  %),[z,w],m)); # O(4)
> simplify(mtaylor(subs(
  w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3,
  %),[z,w],m)); # O(5)
# repeat this until you reach O(27) or greater
> simplify(mtaylor(subs(
  w=z^3+a[1]*z*w+a[2]*z^2*w+a[3]*w^2+a[4]*z*w^2+a[6]*w^3,
  %),[z,w],m)); # O(30)
> # we can stop here since the power series
  # has stabilized mod z^90
> series(%,z);
> w:=z->1*z^3-1*z^7+2*z^11-5*z^15+14*z^19-42*z^23+
  132*z^27-429*z^31+1430*z^35-4862*z^39+16796*z^43
  -58786*z^47+208012*z^51-742900*z^55+2674440*z^59
  -9694845*z^63+35357670*z^67-129644790*z^71+477638700*z^75
  -1767263190*z^79+6564120420*z^83-24466267020*z^87;
> x:=z->z/w(z);
> series(x(z),z);
> y:=z->-1/w(z);
> series(y(z),z);
> # Let's calculate the invariant differential
> simplify(series((diff( simplify(series(x(z),z)), z))
  / (2*y(z) + a[1]*x(z) + a[3]), z));
> eta_a:=z->1-2*z^4+6*z^8-20*z^12+70*z^16-252*z^20+
  924*z^24-3432*z^28+12870*z^32-48620*z^36+184756*z^40
  -705432*z^44+2704156*z^48-10400600*z^52+40116600*z^56
  -155117520*z^60+601080390*z^64-2333606220*z^68
  +9075135300*z^72-35345263800*z^76+137846528820*z^80
  -538257874440*z^84-1921133836440*z^88:
> # Let's calculate the logarithm
> f:=x->add(coeff(eta_a(x),x,i-1)*x^i/i,i=1..(m-1));
> latex(series(f(x),x,m));
> log_C:=powpoly(f(x),x);
> exp_C:=reversion(log_C);
> simplify(tpsform(exp_C,x,m));
> latex(%);
```



```
> # hard code the result of the calculation of the exponential
  # we omit some terms
> e:=x->1*x+2/5*x^5+2/15*x^9+44/975*x^13+422/27625*x^17 + ...:
> F_C:=(x,y)->sort(simplify(mtaylor(
  e(f(x)+f(y)),[x,y],82)),[x,y]);
> F_C(x,y);
> latex(%);
> for n from 2 to 81 do print(n);
  print(latex(simplify(series(e(n*f(x)),x,82)))); od;
```

The results of these computations are that the invariant differential $\eta_{\vec{a}}$ equals

$$1 - 2\,z^4 + 6\,z^8 - 20\,z^{12} + 70\,z^{16} - 252\,z^{20} + 924\,z^{24} - 3432\,z^{28} + 12870\,z^{32} - 48620\,z^{36} + 184756\,z^{40} - 705432\,z^{44} + 2704156\,z^{48} - 10400600\,z^{52} + 40116600\,z^{56} - 155117520\,z^{60} + 601080390\,z^{64} - 2333606220\,z^{68} + 9075135300\,z^{72} - 35345263800\,z^{76} + 137846528820\,z^{80} - 538257874440\,z^{84} - 1921133836440\,z^{88}$$

The logarithm $\log_C(x)$ at equals

$$x - \tfrac{2}{5}x^5 + \tfrac{2}{3}x^9 - \tfrac{20}{13}x^{13} + \tfrac{70}{17}x^{17} - 12\,x^{21} + \tfrac{924}{25}x^{25} - \tfrac{3432}{29}x^{29} + 390\,x^{33} - \tfrac{48620}{37}x^{37} + \tfrac{184756}{41}x^{41} - \tfrac{235144}{15}x^{45} + \tfrac{386308}{7}x^{49} - \tfrac{10400600}{53}x^{53} + 703800\,x^{57} - \tfrac{155117520}{61}x^{61} + \tfrac{120216078}{13}x^{65} - 33820380\,x^{69} + \tfrac{9075135300}{73}x^{73} - 459029400\,x^{77} + \tfrac{15316280980}{9}x^{81} - \tfrac{107651574888}{17}x^{85} - \tfrac{1921133836440}{89}x^{89}$$

The formal group law $F_C(x,y)$ over $\mathbb{F}_9$ equals

$$x + y$$

$$+2\,x^4\,(y) + x^3y^2 + x^2y^3 + 2\,(x)\,y^4$$

$$+x^8\,(y) + 2\,x^6y^3 + x^5y^4 + x^4y^5 + 2\,x^3y^6 + (x)\,y^8$$

$$+x^{12}\,(y) + x^{10}y^3 + 2\,x^8y^5 + x^7y^6 + x^6y^7 + 2\,x^5y^8 + x^3y^{10} + (x)\,y^{12}$$

$$+2\,x^{16}\,(y) + x^{14}y^3 + x^{12}y^5 + 2\,x^{10}y^7 + x^9y^8 + x^8y^9 + 2\,x^7y^{10} + x^5y^{12} + x^3y^{14} + 2\,(x)\,y^{16}$$

$$+x^{20}\,(y) + 2\,x^{18}y^3 + x^{16}y^5 + x^{14}y^7 + 2\,x^{12}y^9 + x^{11}y^{10} + x^{10}y^{11} + 2\,x^9y^{12} + x^7y^{14} + x^5y^{16} + 2\,x^3y^{18} + (x)\,y^{20}$$

$$+x^{22}y^3 + 2\,x^{20}y^5 + x^{18}y^7 + x^{16}y^9 + 2\,x^{14}y^{11} + x^{13}y^{12} + x^{12}y^{13} + 2\,x^{11}y^{14} + x^9y^{16} + x^7y^{18} + 2\,x^5y^{20} + x^3y^{22}$$

$$+x^{24}y^5 + 2\,x^{22}y^7 + x^{20}y^9 + x^{18}y^{11} + 2\,x^{16}y^{13} + x^{15}y^{14} + x^{14}y^{15} + 2\,x^{13}y^{16} + x^{11}y^{18} + x^9y^{20} + 2\,x^7y^{22} + x^5y^{24}$$

$$+x^{26}y^7 + 2\,x^{24}y^9 + x^{22}y^{11} + x^{20}y^{13} + 2\,x^{18}y^{15} + x^{17}y^{16} + x^{16}y^{17} + 2\,x^{15}y^{18} + x^{13}y^{20} + x^{11}y^{22} + 2\,x^9y^{24} + x^7y^{26}$$

$$+x^{36}\,(y) + x^{28}y^9 + 2\,x^{26}y^{11} + x^{24}y^{13} + x^{22}y^{15} + 2\,x^{20}y^{17} + x^{19}y^{18} + x^{18}y^{19} + 2\,x^{17}y^{20} + x^{15}y^{22} + x^{13}y^{24} + 2\,x^{11}y^{26} + x^9y^{28} + (x)\,y^{36}$$

$$+2\,x^{40}\,(y) + x^{38}y^3 + x^{30}y^{11} + 2\,x^{28}y^{13} + x^{26}y^{15} + x^{24}y^{17} + 2\,x^{22}y^{19} + x^{21}y^{20} + x^{20}y^{21} + 2\,x^{19}y^{22} + x^{17}y^{24} + x^{15}y^{26} + 2\,x^{13}y^{28} + x^{11}y^{30} + x^3y^{38} + 2\,(x)\,y^{40}$$

$$+x^{44}\,(y) + 2\,x^{42}y^3 + x^{40}y^5 + x^{32}y^{13} + 2\,x^{30}y^{15} + x^{28}y^{17} + x^{26}y^{19} + 2\,x^{24}y^{21} + x^{23}y^{22} + x^{22}y^{23} + 2\,x^{21}y^{24} + x^{19}y^{26} + x^{17}y^{28} + 2\,x^{15}y^{30} + x^{13}y^{32} + x^5y^{40} + 2\,x^3y^{42} + (x)\,y^{44}$$

$$+x^{48}\,(y) + x^{46}y^3 + 2\,x^{44}y^5 + x^{42}y^7 + x^{34}y^{15} + 2\,x^{32}y^{17} + x^{30}y^{19} + x^{28}y^{21} + 2\,x^{26}y^{23} + x^{25}y^{24} + x^{24}y^{25} + 2\,x^{23}y^{26} + x^{21}y^{28} + x^{19}y^{30} + 2\,x^{17}y^{32} + x^{15}y^{34} + x^7y^{42} + 2\,x^5y^{44} + x^3y^{46} + (x)\,y^{48}$$

$$+2\,x^{52}\,(y) + x^{50}y^3 + x^{48}y^5 + 2\,x^{46}y^7 + x^{44}y^9 + x^{36}y^{17} + 2\,x^{34}y^{19} + x^{32}y^{21} + x^{30}y^{23} + 2\,x^{28}y^{25} + x^{27}y^{26} + x^{26}y^{27} + 2\,x^{25}y^{28} + x^{23}y^{30} + x^{21}y^{32} + 2\,x^{19}y^{34} + x^{17}y^{36} + x^9y^{44} + 2\,x^7y^{46} + x^5y^{48} + x^3y^{50} + 2\,(x)\,y^{52}$$

$$+x^{56}(y)+2x^{54}y^3+x^{52}y^5+x^{50}y^7+2x^{48}y^9+x^{46}y^{11}+x^{38}y^{19}+2x^{36}y^{21}+x^{34}y^{23}+x^{32}y^{25}+2x^{30}y^{27}+x^{29}y^{28}+x^{28}y^{29}+2x^{27}y^{30}+x^{25}y^{32}+x^{23}y^{34}+2x^{21}y^{36}+x^{19}y^{38}+x^{11}y^{46}+2x^9y^{48}+x^7y^{50}+x^5y^{52}+2x^3y^{54}+(x)y^{56}$$

$$+x^{58}y^3+2x^{56}y^5+x^{54}y^7+x^{52}y^9+2x^{50}y^{11}+x^{48}y^{13}+x^{40}y^{21}+2x^{38}y^{23}+x^{36}y^{25}+x^{34}y^{27}+2x^{32}y^{29}+x^{31}y^{30}+x^{30}y^{31}+2x^{29}y^{32}+x^{27}y^{34}+x^{25}y^{36}+2x^{23}y^{38}+x^{21}y^{40}+x^{13}y^{48}+2x^{11}y^{50}+x^9y^{52}+x^7y^{54}+2x^5y^{56}+x^3y^{58}$$

$$+x^{60}y^5+2x^{58}y^7+x^{56}y^9+x^{54}y^{11}+2x^{52}y^{13}+x^{50}y^{15}+x^{42}y^{23}+2x^{40}y^{25}+x^{38}y^{27}+x^{36}y^{29}+2x^{34}y^{31}+x^{33}y^{32}+x^{32}y^{33}+2x^{31}y^{34}+x^{29}y^{36}+x^{27}y^{38}+2x^{25}y^{40}+x^{23}y^{42}+x^{15}y^{50}+2x^{13}y^{52}+x^{11}y^{54}+x^9y^{56}+2x^7y^{58}+x^5y^{60}$$

$$+x^{62}y^7+2x^{60}y^9+x^{58}y^{11}+x^{56}y^{13}+2x^{54}y^{15}+x^{52}y^{17}+x^{44}y^{25}+2x^{42}y^{27}+x^{40}y^{29}+x^{38}y^{31}+2x^{36}y^{33}+x^{35}y^{34}+x^{34}y^{35}+2x^{33}y^{36}+x^{31}y^{38}+x^{29}y^{40}+2x^{27}y^{42}+x^{25}y^{44}+x^{17}y^{52}+2x^{15}y^{54}+x^{13}y^{56}+x^{11}y^{58}+2x^9y^{60}+x^7y^{62}$$

$$+x^{64}y^9+2x^{62}y^{11}+x^{60}y^{13}+x^{58}y^{15}+2x^{56}y^{17}+x^{54}y^{19}+x^{46}y^{27}+2x^{44}y^{29}+x^{42}y^{31}+x^{40}y^{33}+2x^{38}y^{35}+x^{37}y^{36}+x^{36}y^{37}+2x^{35}y^{38}+x^{33}y^{40}+x^{31}y^{42}+2x^{29}y^{44}+x^{27}y^{46}+x^{19}y^{54}+2x^{17}y^{56}+x^{15}y^{58}+x^{13}y^{60}+2x^{11}y^{62}+x^9y^{64}$$

$$+x^{66}y^{11}+2x^{64}y^{13}+x^{62}y^{15}+x^{60}y^{17}+2x^{58}y^{19}+x^{56}y^{21}+x^{48}y^{29}+2x^{46}y^{31}+x^{44}y^{33}+x^{42}y^{35}+2x^{40}y^{37}+x^{39}y^{38}+x^{38}y^{39}+2x^{37}y^{40}+x^{35}y^{42}+x^{33}y^{44}+2x^{31}y^{46}+x^{29}y^{48}+x^{21}y^{56}+2x^{19}y^{58}+x^{17}y^{60}+x^{15}y^{62}+2x^{13}y^{64}+x^{11}y^{66}$$

$$x^{68}y^{13}+2x^{66}y^{15}+x^{64}y^{17}+x^{62}y^{19}+2x^{60}y^{21}+x^{58}y^{23}+x^{50}y^{31}+2x^{48}y^{33}+x^{46}y^{35}+x^{44}y^{37}+2x^{42}y^{39}+x^{41}y^{40}+x^{40}y^{41}+2x^{39}y^{42}+x^{37}y^{44}+x^{35}y^{46}+2x^{33}y^{48}+x^{31}y^{50}+x^{23}y^{58}+2x^{21}y^{60}+x^{19}y^{62}+x^{17}y^{64}+2x^{15}y^{66}+x^{13}y^{68}$$

Some values of the n-series for $F_C(x,y)$ over $\mathbb{F}_9$ are:

$$[2]_C(x) = (2x + 2x^9 + x^{13} + 2x^{17} + x^{21} + x^{25} + x^{29} + x^{33} + x^{41} + 2x^{49} + 2x^{57} + 2x^{61} + 2x^{65} + 2x^{69} + 2x^{73} + 2x^{77} + 2x^{81} + O\left(x^{85}\right))$$

$$[3]_C(x) = (2x^9 + O\left(x^{85}\right))$$

$$[4]_C(x) = (x + 2x^9 + x^{13} + 2x^{17} + x^{25} + x^{29} + x^{33} + x^{37} + 2x^{49} + x^{61} + 2x^{65} + 2x^{69} + x^{73} + x^{81} + O\left(x^{85}\right))$$

$$[5]_C(x) = (2x + x^9 + 2x^{13} + x^{17} + 2x^{25} + 2x^{29} + 2x^{33} + 2x^{37} + x^{49} + 2x^{61} + x^{65} + x^{69} + 2x^{73} + O\left(x^{85}\right))$$

$$[6]_C(x) = (x^9 + x^{81} + O\left(x^{85}\right))$$

$$[7]_C(x) = (x + x^9 + 2x^{13} + x^{17} + 2x^{21} + 2x^{25} + 2x^{29} + 2x^{33} + 2x^{41} + x^{49} + x^{57} + x^{61} + x^{65} + x^{69} + x^{73} + x^{77} + 2x^{81} + O\left(x^{85}\right))$$

$$[8]_C(x) = (2x + x^{81} + O\left(x^{85}\right))$$

$$[9]_C(x) = (x^{81} + O\left(x^{85}\right))$$

$$[10]_C(x) = (x + x^{81} + O\left(x^{85}\right))$$

$$[11]_C(x) = (2x + 2x^9 + x^{13} + 2x^{17} + x^{21} + x^{25} + x^{29} + x^{33} + x^{41} + 2x^{49} + 2x^{57} + 2x^{61} + 2x^{65} + 2x^{69} + 2x^{73} + 2x^{77} + O\left(x^{85}\right))$$

$$[12]_C(x) = (2x^9 + x^{81} + O\left(x^{85}\right))$$

$$[13]_C(x) = (x + 2x^9 + x^{13} + 2x^{17} + x^{25} + x^{29} + x^{33} + x^{37} + 2x^{49} + x^{61} + 2x^{65} + 2x^{69} + x^{73} + 2x^{81} + O\left(x^{85}\right))$$

$$[14]_C(x) = (2x + x^9 + 2x^{13} + x^{17} + 2x^{25} + 2x^{29} + 2x^{33} + 2x^{37} + x^{49} + 2x^{61} + x^{65} + x^{69} + 2x^{73} + x^{81} + O\left(x^{85}\right))$$

$$[15]_C(x) = (x^9 + 2x^{81} + O\left(x^{85}\right))$$

$$[16]_C(x) = (x + x^9 + 2x^{13} + x^{17} + 2x^{21} + 2x^{25} + 2x^{29} + 2x^{33} + 2x^{41} + x^{49} + x^{57} + x^{61} + x^{65} + x^{69} + x^{73} + x^{77} + O\left(x^{85}\right))$$

$$[17]_C(x) = (2x + 2x^{81} + O\left(x^{85}\right))$$

$$[18]_C(x) = (2x^{81} + O\left(x^{85}\right))$$

$$[19]_C(x) = (x + 2x^{81} + O\left(x^{85}\right))$$

$$[20]_C(x) = (2x + 2x^9 + x^{13} + 2x^{17} + x^{21} + x^{25} + x^{29} + x^{33} + x^{41} + 2x^{49} + 2x^{57} + 2x^{61} + 2x^{65} + 2x^{69} + 2x^{73} + 2x^{77} + x^{81} + O\left(x^{85}\right))$$

$$[21]_C(x) = (2x^9 + 2x^{81} + O\left(x^{85}\right))$$

$$[22]_C(x) = (x + 2x^9 + x^{13} + 2x^{17} + x^{25} + x^{29} + x^{33} + x^{37} + 2x^{49} + x^{61} + 2x^{65} + 2x^{69} + x^{73} + O\left(x^{85}\right))$$

$$[23]_C(x) = (2x + x^9 + 2x^{13} + x^{17} + 2x^{25} + 2x^{29} + 2x^{33} + 2x^{37} + x^{49} + 2x^{61} + x^{65} + x^{69} + 2x^{73} + 2x^{81} + O\left(x^{85}\right))$$

$$[24]_C(x) = (x^9 + O\left(x^{85}\right))$$

$$[25]_C(x) = (x + x^9 + 2x^{13} + x^{17} + 2x^{21} + 2x^{25} + 2x^{29} + 2x^{33} + 2x^{41} + x^{49} + x^{57} + x^{61} + x^{65} + x^{69} + x^{73} + x^{77} + x^{81} + O\left(x^{85}\right))$$

$$[26]_C(x) = (2x + O\left(x^{85}\right))$$

$$[27]_C(x) = (O\left(x^{85}\right))$$

$$[28]_C(x) = (x + O\left(x^{85}\right))$$

$$[29]_C(x) = (2x + 2x^9 + x^{13} + 2x^{17} + x^{21} + x^{25} + x^{29} + x^{33} + x^{41} + 2x^{49} + 2x^{57} + 2x^{61} + 2x^{65} + 2x^{69} + 2x^{73} + 2x^{77} + 2x^{81} + O\left(x^{85}\right))$$

$$[30]_C(x) = (2x^9 + O\left(x^{85}\right))$$

$$[31]_C(x) = (x + 2x^9 + x^{13} + 2x^{17} + x^{25} + x^{29} + x^{33} + x^{37} + 2x^{49} + x^{61} + 2x^{65} + 2x^{69} + x^{73} + x^{81} + O\left(x^{85}\right))$$

$$[32]_C(x) = (2x + x^9 + 2x^{13} + x^{17} + 2x^{25} + 2x^{29} + 2x^{33} + 2x^{37} + x^{49} + 2x^{61} + x^{65} + x^{69} + 2x^{73} + O\left(x^{85}\right))$$

$$[33]_C(x) = (x^9 + x^{81} + O\left(x^{85}\right))$$

$$[34]_C(x) = (x + x^9 + 2x^{13} + x^{17} + 2x^{21} + 2x^{25} + 2x^{29} + 2x^{33} + 2x^{41} + x^{49} + x^{57} + x^{61} + x^{65} + x^{69} + x^{73} + x^{77} + 2x^{81} + O\left(x^{85}\right))$$

$$[35]_C(x) = (2x + x^{81} + O\left(x^{85}\right))$$

$$[36]_C(x) = (x^{81} + O\left(x^{85}\right))$$

$$[37]_C(x) = (x + x^{81} + O\left(x^{85}\right))$$

$$[38]_C(x) = (2x + 2x^9 + x^{13} + 2x^{17} + x^{21} + x^{25} + x^{29} + x^{33} + x^{41} + 2x^{49} + 2x^{57} + 2x^{61} + 2x^{65} + 2x^{69} + 2x^{73} + 2x^{77} + O\left(x^{85}\right))$$

$$[39]_C(x) = (2x^9 + x^{81} + O\left(x^{85}\right))$$

$$[40]_C(x) = (x+2\,x^9+x^{13}+2\,x^{17}+x^{25}+x^{29}+x^{33}+x^{37}+2\,x^{49}+x^{61}+2\,x^{65}+2\,x^{69}+x^{73}+2\,x^{81}+O\left(x^{85}\right))$$

$$[41]_C(x) = (2\,x+x^9+2\,x^{13}+x^{17}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{37}+x^{49}+2\,x^{61}+x^{65}+x^{69}+2\,x^{73}+x^{81}+O\left(x^{85}\right))$$

$$[42]_C(x) = (x^9 + 2\,x^{81} + O\left(x^{85}\right))$$

$$[43]_C(x) = (x+x^9+2\,x^{13}+x^{17}+2\,x^{21}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{41}+x^{49}+x^{57}+x^{61}+x^{65}+x^{69}+x^{73}+x^{77}+O\left(x^{85}\right))$$

$$[44]_C(x) = (2\,x + 2\,x^{81} + O\left(x^{85}\right))$$

$$[45]_C(x) = (2\,x^{81} + O\left(x^{85}\right))$$

$$[46]_C(x) = (x + 2\,x^{81} + O\left(x^{85}\right))$$

$$[47]_C(x) = (2\,x + 2\,x^9 + x^{13} + 2\,x^{17} + x^{21} + x^{25} + x^{29} + x^{33} + x^{41} + 2\,x^{49} + 2\,x^{57} + 2\,x^{61} + 2\,x^{65} + 2\,x^{69} + 2\,x^{73} + 2\,x^{77} + x^{81} + O\left(x^{85}\right))$$

$$[48]_C(x) = (2\,x^9 + 2\,x^{81} + O\left(x^{85}\right))$$

$$[49]_C(x) = (x + 2\,x^9 + x^{13} + 2\,x^{17} + x^{25} + x^{29} + x^{33} + x^{37} + 2\,x^{49} + x^{61} + 2\,x^{65} + 2\,x^{69} + x^{73} + O\left(x^{85}\right))$$

$$[50]_C(x) = (2\,x+x^9+2\,x^{13}+x^{17}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{37}+x^{49}+2\,x^{61}+x^{65}+x^{69}+2\,x^{73}+2\,x^{81}+O\left(x^{85}\right))$$

$$[51]_C(x) = (x^9 + O\left(x^{85}\right))$$

$$[52]_C(x) = (x+x^9+2\,x^{13}+x^{17}+2\,x^{21}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{41}+x^{49}+x^{57}+x^{61}+x^{65}+x^{69}+x^{73}+x^{77}+x^{81}+O\left(x^{85}\right))$$

$$[53]_C(x) = (2\,x + O\left(x^{85}\right))$$

$$[54]_C(x) = (O\left(x^{85}\right))$$

$$[55]_C(x) = (x + O\left(x^{85}\right))$$

$$[56]_C(x) = (2\,x + 2\,x^9 + x^{13} + 2\,x^{17} + x^{21} + x^{25} + x^{29} + x^{33} + x^{41} + 2\,x^{49} + 2\,x^{57} + 2\,x^{61} + 2\,x^{65} + 2\,x^{69} + 2\,x^{73} + 2\,x^{77} + 2\,x^{81} + O\left(x^{85}\right))$$

$$[57]_C(x) = (2\,x^9 + O\left(x^{85}\right))$$

$$[58]_C(x) = (x+2\,x^9+x^{13}+2\,x^{17}+x^{25}+x^{29}+x^{33}+x^{37}+2\,x^{49}+x^{61}+2\,x^{65}+2\,x^{69}+x^{73}+x^{81}+O\left(x^{85}\right))$$

$$[59]_C(x) = (2\,x+x^9+2\,x^{13}+x^{17}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{37}+x^{49}+2\,x^{61}+x^{65}+x^{69}+2\,x^{73}+O\left(x^{85}\right))$$

$$[60]_C(x) = (x^9 + x^{81} + O\left(x^{85}\right))$$

$$[61]_C(x) = (x+x^9+2\,x^{13}+x^{17}+2\,x^{21}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{41}+x^{49}+x^{57}+x^{61}+x^{65}+x^{69}+x^{73}+x^{77}+2\,x^{81}+O\left(x^{85}\right))$$

$$[62]_C(x) = (2\,x + x^{81} + O\left(x^{85}\right))$$

$$[63]_C(x) = (x^{81} + O\left(x^{85}\right))$$

$$[64]_C(x) = (x + x^{81} + O\left(x^{85}\right))$$

$$[65]_C(x) = (2\,x+2\,x^9+x^{13}+2\,x^{17}+x^{21}+x^{25}+x^{29}+x^{33}+x^{41}+2\,x^{49}+2\,x^{57}+2\,x^{61}+2\,x^{65}+2\,x^{69}+2\,x^{73}+2\,x^{77}+O\left(x^{85}\right))$$

$$[66]_C(x) = (2\,x^9 + x^{81} + O\left(x^{85}\right))$$

$$[67]_C(x) = (x+2\,x^9+x^{13}+2\,x^{17}+x^{25}+x^{29}+x^{33}+x^{37}+2\,x^{49}+x^{61}+2\,x^{65}+2\,x^{69}+x^{73}+2\,x^{81}+O\left(x^{85}\right))$$

$$[68]_C(x) = (2\,x+x^9+2\,x^{13}+x^{17}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{37}+x^{49}+2\,x^{61}+x^{65}+x^{69}+2\,x^{73}+x^{81}+O\left(x^{85}\right))$$

$$[69]_C(x) = (x^9 + 2\,x^{81} + O\left(x^{85}\right))$$

$$[70]_C(x) = (x+x^9+2\,x^{13}+x^{17}+2\,x^{21}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{41}+x^{49}+x^{57}+x^{61}+x^{65}+x^{69}+x^{73}+x^{77}+O\left(x^{85}\right))$$

$$[71]_C(x) = (2\,x + 2\,x^{81} + O\left(x^{85}\right))$$

$$[72]_C(x) = (2\,x^{81} + O\left(x^{85}\right))$$

$$[73]_C(x) = (x + 2\,x^{81} + O\left(x^{85}\right))$$

$$[74]_C(x) = (2\,x + 2\,x^9 + x^{13} + 2\,x^{17} + x^{21} + x^{25} + x^{29} + x^{33} + x^{41} + 2\,x^{49} + 2\,x^{57} + 2\,x^{61} + 2\,x^{65} + 2\,x^{69} + 2\,x^{73} + 2\,x^{77} + x^{81} + O\left(x^{85}\right))$$

$$[75]_C(x) = (2\,x^9 + 2\,x^{81} + O\left(x^{85}\right))$$

$$[76]_C(x) = (x + 2\,x^9 + x^{13} + 2\,x^{17} + x^{25} + x^{29} + x^{33} + x^{37} + 2\,x^{49} + x^{61} + 2\,x^{65} + 2\,x^{69} + x^{73} + O\left(x^{85}\right))$$

$$[77]_C(x) = (2\,x+x^9+2\,x^{13}+x^{17}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{37}+x^{49}+2\,x^{61}+x^{65}+x^{69}+2\,x^{73}+2\,x^{81}+O\left(x^{85}\right))$$

$$[78]_C(x) = (x^9 + O\left(x^{85}\right))$$

$$[79]_C(x) = (x+x^9+2\,x^{13}+x^{17}+2\,x^{21}+2\,x^{25}+2\,x^{29}+2\,x^{33}+2\,x^{41}+x^{49}+x^{57}+x^{61}+x^{65}+x^{69}+x^{73}+x^{77}+x^{81}+O\left(x^{85}\right))$$

$$[80]_C(x) = (2\,x + O\left(x^{85}\right))$$

$$[81]_C(x) = (O\left(x^{85}\right))$$

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