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# TABULAIRES

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25 JUIN 2025  
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$\sum_{k=1}^n z_k = -\frac{a_{n-1}}{a_n}$
$\sum_{k=1}^n z_k^2 = -\frac{2a_{n-2}}{a_n} + \frac{a_{n-1}^2}{a_n^2}$
$\sum_{k=1}^n z_k^3 = -\frac{3a_{n-3}}{a_n} - \frac{a_{n-1}^3}{a_n^3} + \frac{3a_{n-1}a_{n-2}}{a_n^2}$
$\sum_{k=1}^n z_k^4 = -\frac{4a_{n-4}}{a_n} + \frac{2a_{n-2}^2}{a_n^2} + \frac{a_{n-1}^4}{a_n^4} + \frac{4a_{n-1}a_{n-3}}{a_n^2} - \frac{4a_{n-1}^2a_{n-2}}{a_n^3}$
$\sum_{k=1}^n z_k^5 = -\frac{5a_{n-5}}{a_n} - \frac{a_{n-1}^5}{a_n^5} + \frac{5a_{n-1}a_{n-4}}{a_n^2} + \frac{5a_{n-2}a_{n-3}}{a_n^2} - \frac{5a_{n-1}^2a_{n-3}}{a_n^3} - \frac{5a_{n-1}a_{n-2}^2}{a_n^3} + \frac{5a_{n-1}^3a_{n-2}}{a_n^4}$
$\sum_{k=1}^n z_k^6 = -\frac{6a_{n-6}}{a_n} + \frac{3a_{n-3}^2}{a_n^2} - \frac{2a_{n-2}^3}{a_n^3} + \frac{a_{n-1}^6}{a_n^6} + \frac{6a_{n-1}a_{n-5}}{a_n^2} + \frac{6a_{n-2}a_{n-4}}{a_n^2} - \frac{6a_{n-1}^2a_{n-4}}{a_n^3} + \frac{6a_{n-1}^3a_{n-3}}{a_n^4} - \frac{6a_{n-1}^4a_{n-2}}{a_n^5} + \frac{9a_{n-1}^2a_{n-2}^2}{a_n^4} - \frac{12a_{n-1}a_{n-2}a_{n-3}}{a_n^3}$
$\sum_{k=1}^n z_k^7 = -\frac{7a_{n-7}}{a_n} - \frac{a_{n-1}^7}{a_n^7} + \frac{7a_{n-1}a_{n-6}}{a_n^2} + \frac{7a_{n-2}a_{n-5}}{a_n^2} + \frac{7a_{n-3}a_{n-4}}{a_n^2} - \frac{7a_{n-1}^2a_{n-5}}{a_n^3} - \frac{7a_{n-1}a_{n-3}^2}{a_n^3} - \frac{7a_{n-2}^2a_{n-3}}{a_n^3} + \frac{7a_{n-1}^3a_{n-4}}{a_n^4} + \frac{7a_{n-1}a_{n-2}^3}{a_n^4} - \frac{7a_{n-1}^4a_{n-3}}{a_n^5} + \frac{7a_{n-1}^5a_{n-2}}{a_n^6} - \frac{14a_{n-1}^3a_{n-2}^2}{a_n^5} - \frac{14a_{n-1}a_{n-2}a_{n-4}}{a_n^3} + \frac{21a_{n-1}^2a_{n-2}a_{n-3}}{a_n^4}$
$\sum_{k=1}^n z_k^8 = -\frac{8a_{n-8}}{a_n} + \frac{4a_{n-4}^2}{a_n^2} + \frac{2a_{n-2}^4}{a_n^4} + \frac{a_{n-1}^8}{a_n^8} + \frac{8a_{n-1}a_{n-7}}{a_n^2} + \frac{8a_{n-2}a_{n-6}}{a_n^2} + \frac{8a_{n-3}a_{n-5}}{a_n^2} - \frac{8a_{n-1}^2a_{n-6}}{a_n^3} - \frac{8a_{n-2}a_{n-3}^2}{a_n^3} - \frac{8a_{n-2}^2a_{n-4}}{a_n^3} + \frac{8a_{n-1}^3a_{n-5}}{a_n^4} - \frac{8a_{n-1}^4a_{n-4}}{a_n^5} + \frac{8a_{n-1}^5a_{n-3}}{a_n^6} - \frac{8a_{n-1}^6a_{n-2}}{a_n^7} + \frac{12a_{n-1}^2a_{n-3}^2}{a_n^4} - \frac{16a_{n-1}^2a_{n-2}^3}{a_n^5} + \frac{20a_{n-1}^4a_{n-2}^2}{a_n^6} - \frac{16a_{n-1}a_{n-3}a_{n-4}}{a_n^3} - \frac{16a_{n-1}a_{n-2}a_{n-5}}{a_n^3} + \frac{24a_{n-1}^2a_{n-2}a_{n-4}}{a_n^4} + \frac{24a_{n-1}a_{n-2}^2a_{n-3}}{a_n^4} - \frac{32a_{n-1}^3a_{n-2}a_{n-3}}{a_n^5}$

$$\begin{aligned}
\sum_{k=1}^n Z_k^9 = & -\frac{9a_{n-9}}{a_n} - \frac{3a_{n-3}^3}{a_n^3} - \frac{a_{n-1}^9}{a_n^9} + \frac{9a_{n-1}a_{n-8}}{a_n^2} + \frac{9a_{n-2}a_{n-7}}{a_n^2} + \frac{9a_{n-3}a_{n-6}}{a_n^2} + \\
& \frac{9a_{n-4}a_{n-5}}{a_n^2} - \frac{9a_{n-1}^2a_{n-7}}{a_n^3} - \frac{9a_{n-1}a_{n-4}^2}{a_n^3} - \frac{9a_{n-2}^2a_{n-5}}{a_n^3} + \frac{9a_{n-1}^3a_{n-6}}{a_n^4} + \frac{9a_{n-2}^3a_{n-3}}{a_n^4} - \\
& \frac{9a_{n-1}^4a_{n-5}}{a_n^5} - \frac{9a_{n-1}a_{n-2}^4}{a_n^5} + \frac{9a_{n-1}^5a_{n-4}}{a_n^6} - \frac{9a_{n-1}^6a_{n-3}}{a_n^7} + \frac{9a_{n-1}^7a_{n-2}}{a_n^8} - \frac{18a_{n-1}^3a_{n-3}^2}{a_n^5} - \\
& \frac{27a_{n-1}^5a_{n-2}^2}{a_n^7} + \frac{30a_{n-1}^3a_{n-2}^3}{a_n^6} - \frac{18a_{n-1}a_{n-2}a_{n-6}}{a_n^3} - \frac{18a_{n-1}a_{n-3}a_{n-5}}{a_n^3} - \frac{18a_{n-2}a_{n-3}a_{n-4}}{a_n^3} + \\
& \frac{27a_{n-1}^2a_{n-3}a_{n-4}}{a_n^4} + \frac{27a_{n-1}^2a_{n-2}a_{n-5}}{a_n^4} + \frac{27a_{n-1}a_{n-2}^2a_{n-4}}{a_n^4} + \frac{27a_{n-1}a_{n-2}a_{n-3}^2}{a_n^4} - \\
& \frac{36a_{n-1}^3a_{n-2}a_{n-4}}{a_n^5} + \frac{45a_{n-1}^4a_{n-2}a_{n-3}}{a_n^6} - \frac{54a_{n-1}^2a_{n-2}^2a_{n-3}}{a_n^5} \\
\sum_{k=1}^n Z_k^{10} = & -\frac{10a_{n-10}}{a_n} + \frac{5a_{n-5}^2}{a_n^2} - \frac{2a_{n-2}^5}{a_n^5} + \frac{a_{n-1}^{10}}{a_n^{10}} + \frac{10a_{n-1}a_{n-9}}{a_n^2} + \frac{10a_{n-2}a_{n-8}}{a_n^2} + \\
& \frac{10a_{n-3}a_{n-7}}{a_n^2} + \frac{10a_{n-4}a_{n-6}}{a_n^2} - \frac{10a_{n-1}^2a_{n-8}}{a_n^3} - \frac{10a_{n-2}a_{n-4}^2}{a_n^3} - \frac{10a_{n-2}^2a_{n-6}}{a_n^3} - \\
& \frac{10a_{n-3}^2a_{n-4}}{a_n^3} + \frac{10a_{n-1}^3a_{n-7}}{a_n^4} + \frac{10a_{n-1}a_{n-3}^3}{a_n^4} + \frac{10a_{n-2}^3a_{n-4}}{a_n^4} - \frac{10a_{n-1}^4a_{n-6}}{a_n^5} + \\
& \frac{10a_{n-1}^5a_{n-5}}{a_n^6} - \frac{10a_{n-1}^6a_{n-4}}{a_n^7} + \frac{10a_{n-1}^7a_{n-3}}{a_n^8} - \frac{10a_{n-1}^8a_{n-2}}{a_n^9} + \frac{15a_{n-2}^2a_{n-3}^2}{a_n^4} + \\
& \frac{15a_{n-1}^2a_{n-4}^2}{a_n^4} + \frac{25a_{n-1}^2a_{n-2}^4}{a_n^6} + \frac{25a_{n-1}^4a_{n-3}^2}{a_n^6} + \frac{35a_{n-1}^6a_{n-2}^2}{a_n^8} - \frac{50a_{n-1}^4a_{n-2}^3}{a_n^7} - \\
& \frac{20a_{n-1}a_{n-2}a_{n-7}}{a_n^3} - \frac{20a_{n-1}a_{n-3}a_{n-6}}{a_n^3} - \frac{20a_{n-1}a_{n-4}a_{n-5}}{a_n^3} - \frac{20a_{n-2}a_{n-3}a_{n-5}}{a_n^3} + \\
& \frac{30a_{n-1}^2a_{n-3}a_{n-5}}{a_n^4} + \frac{30a_{n-1}^2a_{n-2}a_{n-6}}{a_n^4} + \frac{30a_{n-1}a_{n-2}^2a_{n-5}}{a_n^4} - \frac{40a_{n-1}^3a_{n-2}a_{n-5}}{a_n^5} - \\
& \frac{40a_{n-1}^3a_{n-3}a_{n-4}}{a_n^5} - \frac{40a_{n-1}a_{n-2}^3a_{n-3}}{a_n^5} + \frac{50a_{n-1}^4a_{n-2}a_{n-4}}{a_n^6} - \frac{60a_{n-1}^5a_{n-2}a_{n-3}}{a_n^7} - \\
& \frac{60a_{n-1}^2a_{n-2}a_{n-4}}{a_n^5} - \frac{60a_{n-1}^2a_{n-2}a_{n-3}^2}{a_n^5} + \frac{100a_{n-1}^3a_{n-2}^2a_{n-3}}{a_n^6} + \frac{60a_{n-1}a_{n-2}a_{n-3}a_{n-4}}{a_n^4} \\
\sum_{k=1}^n Z_k^{11} = & -\frac{11a_{n-11}}{a_n} - \frac{a_{n-1}^{11}}{a_n^{11}} + \frac{11a_{n-1}a_{n-10}}{a_n^2} + \frac{11a_{n-2}a_{n-9}}{a_n^2} + \frac{11a_{n-3}a_{n-8}}{a_n^2} + \\
& \frac{11a_{n-4}a_{n-7}}{a_n^2} + \frac{11a_{n-5}a_{n-6}}{a_n^2} - \frac{11a_{n-1}^2a_{n-9}}{a_n^3} - \frac{11a_{n-1}a_{n-5}^2}{a_n^3} - \frac{11a_{n-3}a_{n-4}^2}{a_n^3} - \\
& \frac{11a_{n-2}^2a_{n-7}}{a_n^3} - \frac{11a_{n-3}^2a_{n-5}}{a_n^3} + \frac{11a_{n-1}^3a_{n-8}}{a_n^4} + \frac{11a_{n-2}a_{n-3}^3}{a_n^4} + \frac{11a_{n-2}^3a_{n-5}}{a_n^4} - \\
& \frac{11a_{n-1}^4a_{n-7}}{a_n^5} - \frac{11a_{n-2}^4a_{n-3}}{a_n^5} + \frac{11a_{n-1}^5a_{n-6}}{a_n^6} + \frac{11a_{n-1}a_{n-2}^5}{a_n^6} - \frac{11a_{n-1}^6a_{n-5}}{a_n^7} + \\
& \frac{11a_{n-1}^7a_{n-4}}{a_n^8} - \frac{11a_{n-1}^8a_{n-3}}{a_n^9} + \frac{11a_{n-1}^9a_{n-2}}{a_n^{10}} - \frac{22a_{n-1}^2a_{n-3}^3}{a_n^5} - \frac{22a_{n-1}^3a_{n-4}^2}{a_n^5} - \\
& \frac{33a_{n-1}^5a_{n-2}^2}{a_n^7} - \frac{44a_{n-1}^7a_{n-2}^2}{a_n^9} - \frac{55a_{n-1}^3a_{n-2}^4}{a_n^7} + \frac{77a_{n-1}^5a_{n-2}^3}{a_n^8} - \frac{22a_{n-1}a_{n-2}a_{n-8}}{a_n^3} - \\
& \frac{22a_{n-1}a_{n-3}a_{n-7}}{a_n^3} - \frac{22a_{n-1}a_{n-4}a_{n-6}}{a_n^3} - \frac{22a_{n-2}a_{n-3}a_{n-6}}{a_n^3} - \frac{22a_{n-2}a_{n-4}a_{n-5}}{a_n^3} + \\
& \frac{33a_{n-1}^2a_{n-2}a_{n-7}}{a_n^4} + \frac{33a_{n-1}^2a_{n-3}a_{n-6}}{a_n^4} + \frac{33a_{n-1}^2a_{n-4}a_{n-5}}{a_n^4} + \frac{33a_{n-2}^2a_{n-3}a_{n-4}}{a_n^4} + \\
& \frac{33a_{n-1}a_{n-2}^2a_{n-6}}{a_n^4} + \frac{33a_{n-1}a_{n-3}^2a_{n-4}}{a_n^4} + \frac{33a_{n-1}a_{n-2}a_{n-4}^2}{a_n^4} - \frac{44a_{n-1}^3a_{n-2}a_{n-6}}{a_n^5}
\end{aligned}$$

$$\begin{aligned}
& \frac{44a_{n-1}^3 a_{n-3} a_{n-5}}{a_n^5} - \frac{44a_{n-1} a_{n-2}^3 a_{n-4}}{a_n^5} + \frac{55a_{n-1}^4 a_{n-2} a_{n-5}}{a_n^6} + \frac{55a_{n-1}^4 a_{n-3} a_{n-4}}{a_n^6} \\
& \frac{66a_{n-1}^5 a_{n-2} a_{n-4}}{a_n^7} + \frac{77a_{n-1}^6 a_{n-2} a_{n-3}}{a_n^8} - \frac{66a_{n-1}^2 a_{n-2}^2 a_{n-5}}{a_n^5} - \frac{66a_{n-1} a_{n-2}^2 a_{n-3}^2}{a_n^5} + \\
& \frac{110a_{n-1}^3 a_{n-2}^2 a_{n-4}}{a_n^6} + \frac{110a_{n-1}^3 a_{n-2} a_{n-3}^2}{a_n^6} + \frac{110a_{n-1}^2 a_{n-2}^3 a_{n-3}}{a_n^6} - \frac{165a_{n-1}^4 a_{n-2}^2 a_{n-3}}{a_n^7} + \\
& \frac{66a_{n-1} a_{n-2} a_{n-3} a_{n-5}}{a_n^4} - \frac{132a_{n-1}^2 a_{n-2} a_{n-3} a_{n-4}}{a_n^5} \\
\sum_{k=1}^n Z_k^{12} = & -\frac{12a_{n-12}}{a_n} + \frac{6a_{n-6}^2}{a_n^2} - \frac{4a_{n-4}^3}{a_n^3} + \frac{3a_{n-3}^4}{a_n^4} + \frac{2a_{n-2}^6}{a_n^6} + \frac{a_{n-1}^{12}}{a_n^{12}} + \frac{12a_{n-1} a_{n-11}}{a_n^2} + \\
& \frac{12a_{n-2} a_{n-10}}{a_n^2} + \frac{12a_{n-3} a_{n-9}}{a_n^2} + \frac{12a_{n-4} a_{n-8}}{a_n^2} + \frac{12a_{n-5} a_{n-7}}{a_n^2} - \frac{12a_{n-1}^2 a_{n-10}}{a_n^3} - \\
& \frac{12a_{n-2} a_{n-5}^2}{a_n^3} - \frac{12a_{n-2}^2 a_{n-8}}{a_n^3} - \frac{12a_{n-3}^2 a_{n-6}}{a_n^3} + \frac{12a_{n-1}^3 a_{n-9}}{a_n^4} + \frac{12a_{n-2}^3 a_{n-6}}{a_n^4} - \\
& \frac{12a_{n-1}^4 a_{n-8}}{a_n^5} - \frac{12a_{n-2}^4 a_{n-4}}{a_n^5} + \frac{12a_{n-1}^5 a_{n-7}}{a_n^6} - \frac{12a_{n-1}^6 a_{n-6}}{a_n^7} + \frac{12a_{n-1}^7 a_{n-5}}{a_n^8} - \\
& \frac{12a_{n-1}^8 a_{n-4}}{a_n^9} + \frac{12a_{n-1}^9 a_{n-3}}{a_n^{10}} - \frac{12a_{n-1}^{10} a_{n-2}}{a_n^{11}} + \frac{18a_{n-1}^2 a_{n-5}^2}{a_n^4} + \frac{18a_{n-2}^2 a_{n-4}^2}{a_n^4} - \\
& \frac{24a_{n-2}^3 a_{n-3}^2}{a_n^6} + \frac{40a_{n-1}^3 a_{n-3}^3}{a_n^6} + \frac{30a_{n-1}^4 a_{n-4}^2}{a_n^6} - \frac{36a_{n-1}^2 a_{n-2}^5}{a_n^7} + \frac{42a_{n-1}^6 a_{n-3}^2}{a_n^8} + \\
& \frac{54a_{n-1}^8 a_{n-2}^2}{a_n^{10}} + \frac{105a_{n-1}^4 a_{n-2}^4}{a_n^8} - \frac{112a_{n-1}^6 a_{n-2}^3}{a_n^9} - \frac{24a_{n-1} a_{n-2} a_{n-9}}{a_n^3} - \frac{24a_{n-1} a_{n-3} a_{n-8}}{a_n^3} - \\
& \frac{24a_{n-1} a_{n-4} a_{n-7}}{a_n^3} - \frac{24a_{n-1} a_{n-5} a_{n-6}}{a_n^3} - \frac{24a_{n-2} a_{n-3} a_{n-7}}{a_n^3} - \frac{24a_{n-2} a_{n-4} a_{n-6}}{a_n^3} - \\
& \frac{24a_{n-3} a_{n-4} a_{n-5}}{a_n^3} + \frac{36a_{n-1}^2 a_{n-2} a_{n-8}}{a_n^4} + \frac{36a_{n-1}^2 a_{n-3} a_{n-7}}{a_n^4} + \frac{36a_{n-1}^2 a_{n-4} a_{n-6}}{a_n^4} + \\
& \frac{36a_{n-2}^2 a_{n-3} a_{n-5}}{a_n^4} + \frac{36a_{n-1} a_{n-2}^2 a_{n-7}}{a_n^4} + \frac{36a_{n-2} a_{n-3}^2 a_{n-4}}{a_n^4} + \frac{36a_{n-1} a_{n-3}^2 a_{n-5}}{a_n^4} + \\
& \frac{36a_{n-1} a_{n-3} a_{n-4}^2}{a_n^4} - \frac{48a_{n-1}^3 a_{n-2} a_{n-7}}{a_n^5} - \frac{48a_{n-1}^3 a_{n-3} a_{n-6}}{a_n^5} - \frac{48a_{n-1}^3 a_{n-4} a_{n-5}}{a_n^5} - \\
& \frac{48a_{n-1} a_{n-2}^3 a_{n-5}}{a_n^5} - \frac{48a_{n-1} a_{n-2} a_{n-3}^3}{a_n^5} + \frac{60a_{n-1}^4 a_{n-2} a_{n-6}}{a_n^6} + \frac{60a_{n-1}^4 a_{n-3} a_{n-5}}{a_n^6} + \\
& \frac{60a_{n-1} a_{n-2}^4 a_{n-3}}{a_n^6} - \frac{72a_{n-1}^5 a_{n-2} a_{n-5}}{a_n^7} - \frac{72a_{n-1}^5 a_{n-3} a_{n-4}}{a_n^7} + \frac{84a_{n-1}^6 a_{n-2} a_{n-4}}{a_n^8} - \\
& \frac{96a_{n-1}^7 a_{n-2} a_{n-3}}{a_n^9} - \frac{72a_{n-1}^2 a_{n-2}^2 a_{n-6}}{a_n^5} - \frac{72a_{n-1}^2 a_{n-3}^2 a_{n-4}}{a_n^5} - \frac{72a_{n-1}^2 a_{n-2} a_{n-4}^2}{a_n^5} + \\
& \frac{180a_{n-1}^2 a_{n-2}^2 a_{n-3}^2}{a_n^6} + \frac{120a_{n-1}^3 a_{n-2}^2 a_{n-5}}{a_n^6} + \frac{120a_{n-1}^2 a_{n-3}^2 a_{n-4}}{a_n^6} - \frac{240a_{n-1}^3 a_{n-2}^3 a_{n-3}}{a_n^7} - \\
& \frac{180a_{n-1}^4 a_{n-2}^2 a_{n-4}}{a_n^7} - \frac{180a_{n-1}^4 a_{n-2} a_{n-3}^2}{a_n^7} + \frac{252a_{n-1}^5 a_{n-2}^2 a_{n-3}}{a_n^8} + \frac{72a_{n-1} a_{n-2} a_{n-3} a_{n-6}}{a_n^4} + \\
& \frac{72a_{n-1} a_{n-2} a_{n-4} a_{n-5}}{a_n^4} - \frac{144a_{n-1}^2 a_{n-2} a_{n-3} a_{n-5}}{a_n^5} - \frac{144a_{n-1} a_{n-2}^2 a_{n-3} a_{n-4}}{a_n^5} + \\
& \frac{240a_{n-1}^3 a_{n-2} a_{n-3} a_{n-4}}{a_n^6}
\end{aligned}$$

$$\begin{aligned}
\sum_{k=1}^n Z_k^{13} = & -\frac{13a_{n-13}}{a_n} - \frac{a_{n-1}^{13}}{a_n^{13}} + \frac{13a_{n-1} a_{n-12}}{a_n^2} + \frac{13a_{n-2} a_{n-11}}{a_n^2} + \frac{13a_{n-3} a_{n-10}}{a_n^2} + \\
& \frac{13a_{n-4} a_{n-9}}{a_n^2} + \frac{13a_{n-5} a_{n-8}}{a_n^2} + \frac{13a_{n-6} a_{n-7}}{a_n^2} - \frac{13a_{n-1}^2 a_{n-11}}{a_n^3} - \frac{13a_{n-1} a_{n-6}^2}{a_n^3} -
\end{aligned}$$

$$\begin{aligned}
& \frac{13a_{n-3}a_{n-5}^2}{a_n^3} - \frac{13a_{n-2}^2a_{n-9}}{a_n^3} - \frac{13a_{n-3}^2a_{n-7}}{a_n^3} - \frac{13a_{n-4}^2a_{n-5}}{a_n^3} + \frac{13a_{n-1}^3a_{n-10}}{a_n^4} + \\
& \frac{13a_{n-1}a_{n-4}^3}{a_n^4} + \frac{13a_{n-2}^3a_{n-7}}{a_n^4} + \frac{13a_{n-3}^3a_{n-4}}{a_n^4} - \frac{13a_{n-1}^4a_{n-9}}{a_n^5} - \frac{13a_{n-1}a_{n-3}^4}{a_n^5} - \\
& \frac{13a_{n-2}^4a_{n-5}}{a_n^5} + \frac{13a_{n-1}^5a_{n-8}}{a_n^6} + \frac{13a_{n-2}^5a_{n-3}}{a_n^6} - \frac{13a_{n-1}^6a_{n-7}}{a_n^7} - \frac{13a_{n-1}a_{n-2}^6}{a_n^7} + \\
& \frac{13a_{n-1}^7a_{n-6}}{a_n^8} - \frac{13a_{n-1}^8a_{n-5}}{a_n^9} + \frac{13a_{n-1}^9a_{n-4}}{a_n^{10}} - \frac{13a_{n-1}^{10}a_{n-3}}{a_n^{11}} + \frac{13a_{n-1}^{11}a_{n-2}}{a_n^{12}} - \\
& \frac{26a_{n-1}^3a_{n-5}^2}{a_n^5} - \frac{26a_{n-2}^2a_{n-3}^3}{a_n^5} - \frac{39a_{n-1}^5a_{n-4}^2}{a_n^7} - \frac{52a_{n-1}^7a_{n-3}^2}{a_n^9} - \frac{65a_{n-1}^9a_{n-2}^2}{a_n^{11}} - \\
& \frac{65a_{n-1}^4a_{n-3}^3}{a_n^7} + \frac{91a_{n-1}^3a_{n-2}^5}{a_n^8} + \frac{156a_{n-1}^7a_{n-2}^3}{a_n^{10}} - \frac{182a_{n-1}^5a_{n-2}^4}{a_n^9} - \frac{26a_{n-1}a_{n-2}a_{n-10}}{a_n^3} - \\
& \frac{26a_{n-1}a_{n-3}a_{n-9}}{a_n^3} - \frac{26a_{n-1}a_{n-4}a_{n-8}}{a_n^3} - \frac{26a_{n-1}a_{n-5}a_{n-7}}{a_n^3} - \frac{26a_{n-2}a_{n-3}a_{n-8}}{a_n^3} - \\
& \frac{26a_{n-2}a_{n-4}a_{n-7}}{a_n^3} - \frac{26a_{n-2}a_{n-5}a_{n-6}}{a_n^3} - \frac{26a_{n-3}a_{n-4}a_{n-6}}{a_n^3} + \frac{39a_{n-1}^2a_{n-2}a_{n-9}}{a_n^4} + \\
& \frac{39a_{n-1}^2a_{n-3}a_{n-8}}{a_n^4} + \frac{39a_{n-1}^2a_{n-4}a_{n-7}}{a_n^4} + \frac{39a_{n-1}^2a_{n-5}a_{n-6}}{a_n^4} + \frac{39a_{n-1}a_{n-2}^2a_{n-8}}{a_n^4} + \\
& \frac{39a_{n-1}a_{n-3}^2a_{n-6}}{a_n^4} + \frac{39a_{n-1}a_{n-2}a_{n-5}^2}{a_n^4} + \frac{39a_{n-2}a_{n-3}a_{n-6}}{a_n^4} + \frac{39a_{n-2}a_{n-4}a_{n-5}}{a_n^4} + \\
& \frac{39a_{n-2}a_{n-3}^2a_{n-5}}{a_n^4} + \frac{39a_{n-2}a_{n-3}a_{n-4}^2}{a_n^4} - \frac{52a_{n-1}^3a_{n-2}a_{n-8}}{a_n^5} - \frac{52a_{n-1}^3a_{n-3}a_{n-7}}{a_n^5} - \\
& \frac{52a_{n-1}^3a_{n-4}a_{n-6}}{a_n^5} - \frac{52a_{n-1}a_{n-2}^3a_{n-6}}{a_n^5} - \frac{52a_{n-2}^3a_{n-3}a_{n-4}}{a_n^5} + \frac{65a_{n-1}^4a_{n-2}a_{n-7}}{a_n^6} + \\
& \frac{65a_{n-1}^4a_{n-3}a_{n-6}}{a_n^6} + \frac{65a_{n-1}^4a_{n-4}a_{n-5}}{a_n^6} + \frac{65a_{n-1}a_{n-2}^4a_{n-4}}{a_n^6} - \frac{78a_{n-1}^5a_{n-2}a_{n-6}}{a_n^7} - \\
& \frac{78a_{n-1}^5a_{n-3}a_{n-5}}{a_n^7} + \frac{91a_{n-1}^6a_{n-2}a_{n-5}}{a_n^8} + \frac{91a_{n-1}^6a_{n-3}a_{n-4}}{a_n^8} - \frac{104a_{n-1}^7a_{n-2}a_{n-4}}{a_n^9} + \\
& \frac{117a_{n-1}^8a_{n-2}a_{n-3}}{a_n^{10}} - \frac{78a_{n-1}^2a_{n-2}^2a_{n-7}}{a_n^5} - \frac{78a_{n-1}^2a_{n-3}^2a_{n-5}}{a_n^5} - \frac{78a_{n-1}^2a_{n-3}a_{n-4}^2}{a_n^5} - \\
& \frac{78a_{n-1}a_{n-2}^2a_{n-4}^2}{a_n^5} + \frac{130a_{n-1}^3a_{n-2}^2a_{n-6}}{a_n^6} + \frac{130a_{n-1}^3a_{n-3}^2a_{n-4}}{a_n^6} + \frac{130a_{n-1}^3a_{n-2}a_{n-4}^2}{a_n^6} + \\
& \frac{130a_{n-1}^2a_{n-2}^3a_{n-5}}{a_n^6} + \frac{130a_{n-1}a_{n-2}^3a_{n-3}^2}{a_n^6} + \frac{130a_{n-1}^2a_{n-2}a_{n-3}^3}{a_n^6} - \frac{195a_{n-1}^4a_{n-2}^2a_{n-5}}{a_n^7} - \\
& \frac{195a_{n-1}^2a_{n-2}^4a_{n-3}}{a_n^7} + \frac{273a_{n-1}^5a_{n-2}^2a_{n-4}}{a_n^8} + \frac{273a_{n-1}^5a_{n-2}a_{n-3}^2}{a_n^8} - \frac{364a_{n-1}^6a_{n-2}^2a_{n-3}}{a_n^9} - \\
& \frac{260a_{n-1}^3a_{n-2}^3a_{n-4}}{a_n^7} + \frac{455a_{n-1}^4a_{n-2}^3a_{n-3}}{a_n^8} - \frac{390a_{n-1}^3a_{n-2}^2a_{n-3}^2}{a_n^7} + \frac{78a_{n-1}a_{n-2}a_{n-3}a_{n-7}}{a_n^4} + \\
& \frac{78a_{n-1}a_{n-2}a_{n-4}a_{n-6}}{a_n^4} + \frac{78a_{n-1}a_{n-3}a_{n-4}a_{n-5}}{a_n^4} - \frac{156a_{n-1}^2a_{n-2}a_{n-3}a_{n-6}}{a_n^5} - \\
& \frac{156a_{n-1}^2a_{n-2}a_{n-4}a_{n-5}}{a_n^5} - \frac{156a_{n-1}a_{n-2}^2a_{n-3}a_{n-5}}{a_n^5} - \frac{156a_{n-1}a_{n-2}a_{n-3}^2a_{n-4}}{a_n^5} + \\
& \frac{260a_{n-1}^3a_{n-2}a_{n-3}a_{n-5}}{a_n^6} - \frac{390a_{n-1}^4a_{n-2}a_{n-3}a_{n-4}}{a_n^7} + \frac{390a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-4}}{a_n^6}
\end{aligned}$$

$$\begin{aligned}
\sum_{k=1}^n Z_k^{14} = & -\frac{14a_{n-14}}{a_n} + \frac{7a_{n-7}^2}{a_n^2} - \frac{2a_{n-2}^7}{a_n^7} + \frac{a_{n-1}^{14}}{a_n^{14}} + \frac{14a_{n-1}a_{n-13}}{a_n^2} + \frac{14a_{n-2}a_{n-12}}{a_n^2} + \\
& \frac{14a_{n-3}a_{n-11}}{a_n^2} + \frac{14a_{n-4}a_{n-10}}{a_n^2} + \frac{14a_{n-5}a_{n-9}}{a_n^2} + \frac{14a_{n-6}a_{n-8}}{a_n^2} - \frac{14a_{n-1}^2a_{n-12}}{a_n^3} - \\
& \frac{14a_{n-2}a_{n-6}^2}{a_n^3} - \frac{14a_{n-4}a_{n-5}^2}{a_n^3} - \frac{14a_{n-2}^2a_{n-10}}{a_n^3} - \frac{14a_{n-3}^2a_{n-8}}{a_n^3} - \frac{14a_{n-4}^2a_{n-6}}{a_n^3} + \\
& \frac{14a_{n-1}^3a_{n-11}}{a_n^4} + \frac{14a_{n-2}a_{n-4}^3}{a_n^4} + \frac{14a_{n-2}^3a_{n-8}}{a_n^4} + \frac{14a_{n-3}^3a_{n-5}}{a_n^4} - \frac{14a_{n-1}^4a_{n-10}}{a_n^5} - \\
& \frac{14a_{n-2}a_{n-3}^4}{a_n^5} - \frac{14a_{n-2}a_{n-6}^5}{a_n^5} + \frac{14a_{n-1}a_{n-9}}{a_n^6} + \frac{14a_{n-2}a_{n-4}^5}{a_n^6} - \frac{14a_{n-1}^6a_{n-8}}{a_n^7} + \\
& \frac{14a_{n-1}^7a_{n-7}}{a_n^8} - \frac{14a_{n-1}^8a_{n-6}}{a_n^9} + \frac{14a_{n-1}^9a_{n-5}}{a_n^{10}} - \frac{14a_{n-1}^{10}a_{n-4}}{a_n^{11}} + \frac{14a_{n-1}^{11}a_{n-3}}{a_n^{12}} - \\
& \frac{14a_{n-1}^{12}a_{n-2}}{a_n^{13}} + \frac{21a_{n-1}^2a_{n-6}^2}{a_n^4} + \frac{21a_{n-2}^2a_{n-5}^2}{a_n^4} + \frac{21a_{n-3}^2a_{n-4}^2}{a_n^4} - \frac{28a_{n-1}^2a_{n-4}^3}{a_n^5} - \\
& \frac{28a_{n-2}^3a_{n-4}^2}{a_n^5} + \frac{35a_{n-1}^4a_{n-5}^2}{a_n^6} + \frac{35a_{n-1}^2a_{n-3}^4}{a_n^6} + \frac{35a_{n-2}^4a_{n-3}^2}{a_n^6} + \frac{49a_{n-1}^2a_{n-2}^6}{a_n^8} + \\
& \frac{49a_{n-1}^6a_{n-4}^2}{a_n^8} + \frac{63a_{n-1}^8a_{n-3}^2}{a_n^{10}} + \frac{77a_{n-1}^{10}a_{n-2}^2}{a_n^{12}} + \frac{98a_{n-1}^5a_{n-3}^3}{a_n^8} - \frac{210a_{n-1}^8a_{n-2}^3}{a_n^{11}} - \\
& \frac{196a_{n-1}^4a_{n-2}^5}{a_n^9} + \frac{294a_{n-1}^6a_{n-2}^4}{a_n^{10}} - \frac{28a_{n-1}a_{n-2}a_{n-11}}{a_n^3} - \frac{28a_{n-1}a_{n-3}a_{n-10}}{a_n^3} - \\
& \frac{28a_{n-1}a_{n-4}a_{n-9}}{a_n^3} - \frac{28a_{n-1}a_{n-5}a_{n-8}}{a_n^3} - \frac{28a_{n-1}a_{n-6}a_{n-7}}{a_n^3} - \frac{28a_{n-2}a_{n-3}a_{n-9}}{a_n^3} - \\
& \frac{28a_{n-2}a_{n-4}a_{n-8}}{a_n^3} - \frac{28a_{n-2}a_{n-5}a_{n-7}}{a_n^3} - \frac{28a_{n-3}a_{n-4}a_{n-7}}{a_n^3} - \frac{28a_{n-3}a_{n-5}a_{n-6}}{a_n^3} + \\
& \frac{42a_{n-1}^2a_{n-2}a_{n-10}}{a_n^4} + \frac{42a_{n-1}^2a_{n-3}a_{n-9}}{a_n^4} + \frac{42a_{n-1}^2a_{n-4}a_{n-8}}{a_n^4} + \frac{42a_{n-1}^2a_{n-5}a_{n-7}}{a_n^4} + \\
& \frac{42a_{n-1}a_{n-3}a_{n-5}^2}{a_n^4} + \frac{42a_{n-1}a_{n-2}^2a_{n-9}}{a_n^4} + \frac{42a_{n-1}a_{n-3}^2a_{n-7}}{a_n^4} + \frac{42a_{n-1}a_{n-4}^2a_{n-5}}{a_n^4} + \\
& \frac{42a_{n-2}^2a_{n-3}a_{n-7}}{a_n^4} + \frac{42a_{n-2}^2a_{n-4}a_{n-6}}{a_n^4} + \frac{42a_{n-2}a_{n-3}^2a_{n-6}}{a_n^4} - \frac{56a_{n-1}^3a_{n-2}a_{n-9}}{a_n^5} - \\
& \frac{56a_{n-1}^3a_{n-3}a_{n-8}}{a_n^5} - \frac{56a_{n-1}^3a_{n-4}a_{n-7}}{a_n^5} - \frac{56a_{n-1}^3a_{n-5}a_{n-6}}{a_n^5} - \frac{56a_{n-1}a_{n-2}^3a_{n-7}}{a_n^5} - \\
& \frac{56a_{n-1}a_{n-3}^3a_{n-4}}{a_n^5} - \frac{56a_{n-2}^3a_{n-3}a_{n-5}}{a_n^5} + \frac{70a_{n-1}^4a_{n-2}a_{n-8}}{a_n^6} + \frac{70a_{n-1}^4a_{n-3}a_{n-7}}{a_n^6} + \\
& \frac{70a_{n-1}^4a_{n-4}a_{n-6}}{a_n^6} + \frac{70a_{n-1}a_{n-2}^4a_{n-5}}{a_n^6} - \frac{84a_{n-1}^5a_{n-2}a_{n-7}}{a_n^7} - \frac{84a_{n-1}^5a_{n-3}a_{n-6}}{a_n^7} - \\
& \frac{84a_{n-1}^5a_{n-4}a_{n-5}}{a_n^7} - \frac{84a_{n-1}a_{n-2}^5a_{n-3}}{a_n^7} + \frac{98a_{n-1}^6a_{n-2}a_{n-6}}{a_n^8} + \frac{98a_{n-1}^6a_{n-3}a_{n-5}}{a_n^8} - \\
& \frac{112a_{n-1}^7a_{n-2}a_{n-5}}{a_n^9} - \frac{112a_{n-1}^7a_{n-3}a_{n-4}}{a_n^9} + \frac{126a_{n-1}^8a_{n-2}a_{n-4}}{a_n^{10}} - \frac{140a_{n-1}^9a_{n-2}a_{n-3}}{a_n^{11}} - \\
& \frac{84a_{n-1}^2a_{n-2}^2a_{n-8}}{a_n^5} - \frac{84a_{n-1}^2a_{n-3}^2a_{n-6}}{a_n^5} - \frac{84a_{n-1}^2a_{n-2}a_{n-5}^2}{a_n^5} - \frac{84a_{n-2}^2a_{n-3}^2a_{n-4}}{a_n^5} + \\
& \frac{140a_{n-1}^3a_{n-2}^2a_{n-7}}{a_n^6} + \frac{140a_{n-1}^3a_{n-3}^2a_{n-5}}{a_n^6} + \frac{140a_{n-1}^3a_{n-3}a_{n-4}^2}{a_n^6} + \frac{140a_{n-1}^2a_{n-2}^3a_{n-6}}{a_n^6} + \\
& \frac{140a_{n-1}a_{n-2}^2a_{n-3}^3}{a_n^6} - \frac{210a_{n-1}^4a_{n-2}^2a_{n-6}}{a_n^7} - \frac{210a_{n-1}^4a_{n-3}^2a_{n-4}}{a_n^7} - \frac{210a_{n-1}^4a_{n-2}a_{n-4}^2}{a_n^7} - \\
& \frac{210a_{n-1}^2a_{n-2}^4a_{n-4}}{a_n^7} + \frac{294a_{n-1}^5a_{n-2}^2a_{n-5}}{a_n^8} - \frac{392a_{n-1}^6a_{n-2}^2a_{n-4}}{a_n^9} - \frac{392a_{n-1}^6a_{n-3}a_{n-3}^2}{a_n^9} +
\end{aligned}$$

$$\begin{aligned}
& \frac{504a_{n-1}^7a_{n-2}^2a_{n-3}}{a_n^{10}} - \frac{280a_{n-1}^3a_{n-2}^3a_{n-5}}{a_n^7} - \frac{280a_{n-1}^3a_{n-2}a_{n-3}^3}{a_n^7} + \frac{490a_{n-1}^4a_{n-2}^3a_{n-4}}{a_n^8} + \\
& \frac{490a_{n-1}^3a_{n-2}^4a_{n-3}}{a_n^8} - \frac{784a_{n-1}^5a_{n-2}^3a_{n-3}}{a_n^9} + \frac{210a_{n-1}^2a_{n-2}^2a_{n-4}^2}{a_n^6} - \frac{420a_{n-1}^2a_{n-2}^3a_{n-3}^2}{a_n^7} + \\
& \frac{735a_{n-1}^4a_{n-2}^2a_{n-3}^2}{a_n^8} + \frac{84a_{n-1}a_{n-2}a_{n-3}a_{n-8}}{a_n^4} + \frac{84a_{n-1}a_{n-2}a_{n-4}a_{n-7}}{a_n^4} + \\
& \frac{84a_{n-1}a_{n-2}a_{n-5}a_{n-6}}{a_n^4} + \frac{84a_{n-1}a_{n-3}a_{n-4}a_{n-6}}{a_n^4} + \frac{84a_{n-2}a_{n-3}a_{n-4}a_{n-5}}{a_n^4} - \\
& \frac{168a_{n-1}^2a_{n-2}a_{n-3}a_{n-7}}{a_n^5} - \frac{168a_{n-1}^2a_{n-2}a_{n-4}a_{n-6}}{a_n^5} - \frac{168a_{n-1}^2a_{n-3}a_{n-4}a_{n-5}}{a_n^5} - \\
& \frac{168a_{n-1}a_{n-2}a_{n-3}a_{n-6}}{a_n^5} - \frac{168a_{n-1}a_{n-2}^2a_{n-4}a_{n-5}}{a_n^5} - \frac{168a_{n-1}a_{n-2}a_{n-3}^2a_{n-5}}{a_n^5} - \\
& \frac{168a_{n-1}a_{n-2}a_{n-3}a_{n-4}^2}{a_n^5} + \frac{280a_{n-1}^3a_{n-2}a_{n-3}a_{n-6}}{a_n^6} + \frac{280a_{n-1}^3a_{n-2}a_{n-4}a_{n-5}}{a_n^6} + \\
& \frac{280a_{n-1}a_{n-2}^3a_{n-3}a_{n-4}}{a_n^6} - \frac{420a_{n-1}^4a_{n-2}a_{n-3}a_{n-5}}{a_n^7} + \frac{588a_{n-1}^5a_{n-2}a_{n-3}a_{n-4}}{a_n^8} + \\
& \frac{420a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-5}}{a_n^6} + \frac{420a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-4}}{a_n^6} - \frac{840a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-4}}{a_n^7}
\end{aligned}$$

$$\begin{aligned}
\sum_{k=1}^n Z_k^{15} = & -\frac{15a_{n-15}}{a_n} - \frac{5a_{n-5}^3}{a_n^3} - \frac{3a_{n-3}^5}{a_n^5} - \frac{a_{n-1}^{15}}{a_n^{15}} + \frac{15a_{n-1}a_{n-14}}{a_n^2} + \frac{15a_{n-2}a_{n-13}}{a_n^2} + \\
& \frac{15a_{n-3}a_{n-12}}{a_n^2} + \frac{15a_{n-4}a_{n-11}}{a_n^2} + \frac{15a_{n-5}a_{n-10}}{a_n^2} + \frac{15a_{n-6}a_{n-9}}{a_n^2} + \frac{15a_{n-7}a_{n-8}}{a_n^2} - \\
& \frac{15a_{n-1}^2a_{n-13}}{a_n^3} - \frac{15a_{n-1}a_{n-7}^2}{a_n^3} - \frac{15a_{n-3}a_{n-6}^2}{a_n^3} - \frac{15a_{n-2}a_{n-11}}{a_n^3} - \frac{15a_{n-3}^2a_{n-9}}{a_n^3} - \\
& \frac{15a_{n-4}^2a_{n-7}}{a_n^3} + \frac{15a_{n-1}^3a_{n-12}}{a_n^4} + \frac{15a_{n-3}a_{n-4}^3}{a_n^4} + \frac{15a_{n-2}^3a_{n-9}}{a_n^4} + \frac{15a_{n-3}^3a_{n-6}}{a_n^4} - \\
& \frac{15a_{n-1}^4a_{n-11}}{a_n^5} - \frac{15a_{n-2}^4a_{n-7}}{a_n^5} + \frac{15a_{n-1}^5a_{n-10}}{a_n^6} + \frac{15a_{n-2}^5a_{n-5}}{a_n^6} - \frac{15a_{n-1}^6a_{n-9}}{a_n^7} - \\
& \frac{15a_{n-2}^6a_{n-3}}{a_n^7} + \frac{15a_{n-1}^7a_{n-8}}{a_n^8} + \frac{15a_{n-1}a_{n-2}^7}{a_n^8} - \frac{15a_{n-1}^8a_{n-7}}{a_n^9} + \frac{15a_{n-1}^9a_{n-6}}{a_n^{10}} - \\
& \frac{15a_{n-1}^{10}a_{n-5}}{a_n^{11}} + \frac{15a_{n-1}^{11}a_{n-4}}{a_n^{12}} - \frac{15a_{n-1}^{12}a_{n-3}}{a_n^{13}} + \frac{15a_{n-1}^{13}a_{n-2}}{a_n^{14}} - \frac{30a_{n-1}^3a_{n-6}^2}{a_n^5} - \\
& \frac{45a_{n-1}^5a_{n-5}^2}{a_n^7} - \frac{60a_{n-1}^7a_{n-4}^2}{a_n^9} - \frac{75a_{n-1}^9a_{n-3}^2}{a_n^{11}} - \frac{90a_{n-1}^{11}a_{n-2}^2}{a_n^{13}} + \frac{50a_{n-1}^3a_{n-4}^3}{a_n^6} + \\
& \frac{50a_{n-2}^3a_{n-3}^3}{a_n^6} - \frac{75a_{n-1}^3a_{n-3}^4}{a_n^7} - \frac{140a_{n-1}^6a_{n-3}^3}{a_n^9} - \frac{140a_{n-1}^3a_{n-2}^6}{a_n^9} + \frac{275a_{n-1}^9a_{n-2}^3}{a_n^{12}} - \\
& \frac{450a_{n-1}^7a_{n-2}^4}{a_n^{11}} + \frac{378a_{n-1}^5a_{n-2}^5}{a_n^{10}} - \frac{30a_{n-1}a_{n-2}a_{n-12}}{a_n^3} - \frac{30a_{n-1}a_{n-3}a_{n-11}}{a_n^3} - \\
& \frac{30a_{n-1}a_{n-4}a_{n-10}}{a_n^3} - \frac{30a_{n-1}a_{n-5}a_{n-9}}{a_n^3} - \frac{30a_{n-1}a_{n-6}a_{n-8}}{a_n^3} - \frac{30a_{n-2}a_{n-3}a_{n-10}}{a_n^3} - \\
& \frac{30a_{n-2}a_{n-4}a_{n-9}}{a_n^3} - \frac{30a_{n-2}a_{n-5}a_{n-8}}{a_n^3} - \frac{30a_{n-2}a_{n-6}a_{n-7}}{a_n^3} - \frac{30a_{n-3}a_{n-4}a_{n-8}}{a_n^3} - \\
& \frac{30a_{n-3}a_{n-5}a_{n-7}}{a_n^3} - \frac{30a_{n-4}a_{n-5}a_{n-6}}{a_n^3} + \frac{45a_{n-1}^2a_{n-2}a_{n-11}}{a_n^4} + \frac{45a_{n-1}^2a_{n-3}a_{n-10}}{a_n^4} + \\
& \frac{45a_{n-1}^2a_{n-4}a_{n-9}}{a_n^4} + \frac{45a_{n-1}^2a_{n-5}a_{n-8}}{a_n^4} + \frac{45a_{n-1}^2a_{n-6}a_{n-7}}{a_n^4} + \frac{45a_{n-1}a_{n-2}a_{n-6}^2}{a_n^4} + \\
& \frac{45a_{n-1}a_{n-4}a_{n-5}^2}{a_n^4} + \frac{45a_{n-1}a_{n-2}^2a_{n-10}}{a_n^4} + \frac{45a_{n-1}a_{n-3}^2a_{n-8}}{a_n^4} + \frac{45a_{n-1}a_{n-4}^2a_{n-6}}{a_n^4} +
\end{aligned}$$

$$\begin{aligned}
& \frac{45a_{n-2}^2 a_{n-3} a_{n-8}}{a_n^4} + \frac{45a_{n-2}^2 a_{n-4} a_{n-7}}{a_n^4} + \frac{45a_{n-2}^2 a_{n-5} a_{n-6}}{a_n^4} + \frac{45a_{n-2} a_{n-3}^2 a_{n-7}}{a_n^4} + \\
& \frac{45a_{n-3}^2 a_{n-4} a_{n-5}}{a_n^4} + \frac{45a_{n-2} a_{n-4}^2 a_{n-5}}{a_n^4} + \frac{45a_{n-2} a_{n-3} a_{n-5}^2}{a_n^4} - \frac{60a_{n-1}^3 a_{n-2} a_{n-10}}{a_n^5} - \\
& \frac{60a_{n-1}^3 a_{n-3} a_{n-9}}{a_n^5} - \frac{60a_{n-1}^3 a_{n-4} a_{n-8}}{a_n^5} - \frac{60a_{n-1}^3 a_{n-5} a_{n-7}}{a_n^5} - \frac{60a_{n-1} a_{n-2} a_{n-4}^3}{a_n^5} - \\
& \frac{60a_{n-1} a_{n-2}^3 a_{n-8}}{a_n^5} - \frac{60a_{n-1} a_{n-3}^3 a_{n-5}}{a_n^5} - \frac{60a_{n-2}^3 a_{n-3} a_{n-6}}{a_n^5} - \frac{60a_{n-2}^3 a_{n-4} a_{n-5}}{a_n^5} - \\
& \frac{60a_{n-2} a_{n-3}^3 a_{n-4}}{a_n^5} + \frac{75a_{n-1}^4 a_{n-2} a_{n-9}}{a_n^6} + \frac{75a_{n-1}^4 a_{n-3} a_{n-8}}{a_n^6} + \frac{75a_{n-1}^4 a_{n-4} a_{n-7}}{a_n^6} + \\
& \frac{75a_{n-1}^4 a_{n-5} a_{n-6}}{a_n^6} + \frac{75a_{n-1} a_{n-2} a_{n-3}^4}{a_n^6} + \frac{75a_{n-1} a_{n-2}^4 a_{n-6}}{a_n^6} + \frac{75a_{n-2}^4 a_{n-3} a_{n-4}}{a_n^6} - \\
& \frac{90a_{n-1}^5 a_{n-2} a_{n-8}}{a_n^7} - \frac{90a_{n-1}^5 a_{n-3} a_{n-7}}{a_n^7} - \frac{90a_{n-1}^5 a_{n-4} a_{n-6}}{a_n^7} - \frac{90a_{n-1} a_{n-2}^5 a_{n-4}}{a_n^7} + \\
& \frac{105a_{n-1}^6 a_{n-2} a_{n-7}}{a_n^8} + \frac{105a_{n-1}^6 a_{n-3} a_{n-6}}{a_n^8} + \frac{105a_{n-1}^6 a_{n-4} a_{n-5}}{a_n^8} - \frac{120a_{n-1}^7 a_{n-2} a_{n-6}}{a_n^9} - \\
& \frac{120a_{n-1}^7 a_{n-3} a_{n-5}}{a_n^9} + \frac{135a_{n-1}^8 a_{n-2} a_{n-5}}{a_n^{10}} + \frac{135a_{n-1}^8 a_{n-3} a_{n-4}}{a_n^{10}} - \frac{150a_{n-1}^9 a_{n-2} a_{n-4}}{a_n^{11}} + \\
& \frac{165a_{n-1}^{10} a_{n-2} a_{n-3}}{a_n^{12}} - \frac{90a_{n-1}^2 a_{n-2}^2 a_{n-9}}{a_n^5} - \frac{90a_{n-1}^2 a_{n-3}^2 a_{n-7}}{a_n^5} - \frac{90a_{n-1}^2 a_{n-4}^2 a_{n-5}}{a_n^5} - \\
& \frac{90a_{n-1}^2 a_{n-3} a_{n-5}^2}{a_n^5} - \frac{90a_{n-1} a_{n-2}^2 a_{n-5}^2}{a_n^5} - \frac{90a_{n-1} a_{n-3}^2 a_{n-4}^2}{a_n^5} - \frac{90a_{n-2}^2 a_{n-3}^2 a_{n-5}}{a_n^5} - \\
& \frac{90a_{n-2}^2 a_{n-3} a_{n-4}^2}{a_n^5} + \frac{150a_{n-1}^3 a_{n-2}^2 a_{n-8}}{a_n^6} + \frac{150a_{n-1}^3 a_{n-3}^2 a_{n-6}}{a_n^6} + \frac{150a_{n-1}^3 a_{n-2} a_{n-5}^2}{a_n^6} + \\
& \frac{150a_{n-1}^2 a_{n-2}^3 a_{n-7}}{a_n^6} + \frac{150a_{n-1}^2 a_{n-3}^3 a_{n-4}}{a_n^6} + \frac{150a_{n-1} a_{n-2}^3 a_{n-4}^2}{a_n^6} - \frac{225a_{n-1}^4 a_{n-2}^2 a_{n-7}}{a_n^7} - \\
& \frac{225a_{n-1}^4 a_{n-3}^2 a_{n-5}}{a_n^7} - \frac{225a_{n-1}^4 a_{n-3} a_{n-4}^2}{a_n^7} - \frac{225a_{n-1} a_{n-2}^4 a_{n-3}^2}{a_n^7} + \\
& \frac{315a_{n-1}^5 a_{n-2}^2 a_{n-6}}{a_n^8} + \frac{315a_{n-1}^5 a_{n-3}^2 a_{n-4}}{a_n^8} + \frac{315a_{n-1}^5 a_{n-2} a_{n-4}^2}{a_n^8} + \frac{315a_{n-1}^2 a_{n-2}^5 a_{n-3}}{a_n^8} - \\
& \frac{420a_{n-1}^6 a_{n-2}^2 a_{n-5}}{a_n^9} + \frac{540a_{n-1}^7 a_{n-2}^2 a_{n-4}}{a_n^{10}} + \frac{540a_{n-1}^7 a_{n-2} a_{n-3}^2}{a_n^{10}} - \frac{675a_{n-1}^8 a_{n-2}^2 a_{n-3}}{a_n^{11}} - \\
& \frac{300a_{n-1}^3 a_{n-2}^3 a_{n-6}}{a_n^7} + \frac{525a_{n-1}^4 a_{n-2}^3 a_{n-5}}{a_n^8} + \frac{525a_{n-1}^4 a_{n-2} a_{n-3}^3}{a_n^8} + \frac{525a_{n-1}^3 a_{n-2}^4 a_{n-4}}{a_n^8} - \\
& \frac{840a_{n-1}^5 a_{n-2}^3 a_{n-4}}{a_n^9} + \frac{1260a_{n-1}^6 a_{n-2}^3 a_{n-3}}{a_n^{10}} - \frac{1050a_{n-1}^4 a_{n-2}^4 a_{n-3}}{a_n^9} - \frac{450a_{n-1}^3 a_{n-2}^2 a_{n-4}^2}{a_n^7} - \\
& \frac{450a_{n-1}^2 a_{n-2}^2 a_{n-3}^3}{a_n^7} - \frac{1260a_{n-1}^5 a_{n-2}^2 a_{n-3}^2}{a_n^9} + \frac{1050a_{n-1}^3 a_{n-2}^3 a_{n-3}^2}{a_n^8} + \frac{90a_{n-1} a_{n-2} a_{n-3} a_{n-9}}{a_n^4} + \\
& \frac{90a_{n-1} a_{n-2} a_{n-4} a_{n-8}}{a_n^4} + \frac{90a_{n-1} a_{n-2} a_{n-5} a_{n-7}}{a_n^4} + \frac{90a_{n-1} a_{n-3} a_{n-4} a_{n-7}}{a_n^4} + \\
& \frac{90a_{n-1} a_{n-3} a_{n-5} a_{n-6}}{a_n^4} + \frac{90a_{n-2} a_{n-3} a_{n-4} a_{n-6}}{a_n^4} - \frac{180a_{n-1}^2 a_{n-2} a_{n-3} a_{n-8}}{a_n^5} - \\
& \frac{180a_{n-1}^2 a_{n-2} a_{n-4} a_{n-7}}{a_n^5} - \frac{180a_{n-1}^2 a_{n-3} a_{n-5} a_{n-6}}{a_n^5} - \frac{180a_{n-1}^2 a_{n-3} a_{n-4} a_{n-6}}{a_n^5} + \\
& \frac{180a_{n-1} a_{n-2}^2 a_{n-3} a_{n-7}}{a_n^5} - \frac{180a_{n-1} a_{n-2}^2 a_{n-4} a_{n-6}}{a_n^5} - \frac{180a_{n-1} a_{n-2} a_{n-3}^2 a_{n-6}}{a_n^4} + \\
& \frac{300a_{n-1}^3 a_{n-2} a_{n-3} a_{n-7}}{a_n^6} + \frac{360a_{n-1}^3 a_{n-2} a_{n-4} a_{n-6}}{a_n^6} + \frac{360a_{n-1}^3 a_{n-3} a_{n-4} a_{n-5}}{a_n^6} +
\end{aligned}$$

$$\begin{aligned}
& \frac{300a_{n-1}a_{n-2}^3a_{n-3}a_{n-5}}{a_n^6} - \frac{450a_{n-1}^4a_{n-2}a_{n-3}a_{n-6}}{a_n^7} - \frac{450a_{n-1}^4a_{n-2}a_{n-4}a_{n-5}}{a_n^7} + \\
& \frac{630a_{n-1}^5a_{n-2}a_{n-3}a_{n-5}}{a_n^8} - \frac{840a_{n-1}^6a_{n-2}a_{n-3}a_{n-4}}{a_n^9} + \frac{450a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-6}}{a_n^6} + \\
& \frac{450a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-5}}{a_n^6} + \frac{450a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-5}}{a_n^6} + \frac{450a_{n-1}^2a_{n-2}a_{n-3}a_{n-4}^2}{a_n^6} + \\
& \frac{450a_{n-1}a_{n-2}^2a_{n-3}^2a_{n-4}}{a_n^6} - \frac{900a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-5}}{a_n^7} - \frac{900a_{n-1}^3a_{n-2}a_{n-3}^2a_{n-4}}{a_n^7} - \\
& \frac{900a_{n-1}^2a_{n-2}^3a_{n-3}a_{n-4}}{a_n^7} + \frac{1575a_{n-1}^4a_{n-2}^2a_{n-3}a_{n-4}}{a_n^8} - \frac{360a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-5}}{a_n^5} \\
\sum_{k=1}^n Z_k^{16} = & -\frac{16a_{n-16}}{a_n} + \frac{8a_{n-8}^2}{a_n^2} + \frac{4a_{n-4}^4}{a_n^4} + \frac{2a_{n-2}^8}{a_n^8} + \frac{a_{n-1}^{16}}{a_n^{16}} + \frac{16a_{n-1}a_{n-15}}{a_n^2} + \\
& \frac{16a_{n-2}a_{n-14}}{a_n^2} + \frac{16a_{n-3}a_{n-13}}{a_n^2} + \frac{16a_{n-4}a_{n-12}}{a_n^2} + \frac{16a_{n-5}a_{n-11}}{a_n^2} + \frac{16a_{n-6}a_{n-10}}{a_n^2} + \\
& \frac{16a_{n-7}a_{n-9}}{a_n^2} - \frac{16a_{n-1}^2a_{n-14}}{a_n^3} - \frac{16a_{n-4}a_{n-6}^2}{a_n^3} - \frac{16a_{n-2}^2a_{n-12}}{a_n^3} - \frac{16a_{n-3}^2a_{n-10}}{a_n^3} - \\
& \frac{16a_{n-4}^2a_{n-8}}{a_n^3} - \frac{16a_{n-5}^2a_{n-6}}{a_n^3} - \frac{16a_{n-2}a_{n-7}^2}{a_n^3} + \frac{16a_{n-1}^3a_{n-13}}{a_n^4} + \frac{16a_{n-1}a_{n-5}^3}{a_n^4} + \\
& \frac{16a_{n-2}^3a_{n-10}}{a_n^4} + \frac{16a_{n-3}^3a_{n-7}}{a_n^4} - \frac{16a_{n-1}^4a_{n-12}}{a_n^5} - \frac{16a_{n-2}^4a_{n-8}}{a_n^5} - \frac{16a_{n-3}^4a_{n-4}}{a_n^5} + \\
& \frac{16a_{n-1}^5a_{n-11}}{a_n^6} + \frac{16a_{n-1}a_{n-3}^5}{a_n^6} + \frac{16a_{n-2}^5a_{n-6}}{a_n^6} - \frac{16a_{n-1}^6a_{n-10}}{a_n^7} - \frac{16a_{n-2}^6a_{n-4}}{a_n^7} + \\
& \frac{16a_{n-1}^7a_{n-9}}{a_n^8} - \frac{16a_{n-1}^8a_{n-8}}{a_n^9} + \frac{16a_{n-1}^9a_{n-7}}{a_n^{10}} - \frac{16a_{n-1}^{10}a_{n-6}}{a_n^{11}} + \frac{16a_{n-1}^{11}a_{n-5}}{a_n^{12}} - \\
& \frac{16a_{n-1}^{12}a_{n-4}}{a_n^{13}} + \frac{16a_{n-1}^{13}a_{n-3}}{a_n^{14}} - \frac{16a_{n-1}^{14}a_{n-2}}{a_n^{15}} + \frac{24a_{n-1}^2a_{n-7}^2}{a_n^4} + \frac{24a_{n-2}^2a_{n-6}^2}{a_n^4} + \\
& \frac{24a_{n-3}^2a_{n-5}^2}{a_n^4} - \frac{32a_{n-2}^2a_{n-4}^3}{a_n^5} - \frac{32a_{n-3}^3a_{n-5}^2}{a_n^5} + \frac{40a_{n-1}^4a_{n-6}^2}{a_n^6} + \frac{40a_{n-2}^2a_{n-3}^4}{a_n^6} + \\
& \frac{40a_{n-2}^4a_{n-4}^2}{a_n^6} - \frac{48a_{n-2}^5a_{n-3}^2}{a_n^7} + \frac{56a_{n-1}^6a_{n-5}^2}{a_n^8} - \frac{64a_{n-1}^7a_{n-2}^7}{a_n^9} + \frac{72a_{n-1}^8a_{n-4}^2}{a_n^{10}} + \\
& \frac{88a_{n-1}^{10}a_{n-3}^2}{a_n^{12}} + \frac{104a_{n-1}^{12}a_{n-2}^2}{a_n^{14}} - \frac{80a_{n-1}^4a_{n-4}^3}{a_n^7} + \frac{192a_{n-1}^7a_{n-3}^3}{a_n^{10}} - \frac{352a_{n-1}^{10}a_{n-2}^3}{a_n^{13}} + \\
& \frac{140a_{n-1}^4a_{n-3}^4}{a_n^8} + \frac{336a_{n-1}^4a_{n-2}^6}{a_n^{10}} + \frac{660a_{n-1}^8a_{n-2}^4}{a_n^{12}} - \frac{672a_{n-1}^6a_{n-2}^5}{a_n^{11}} - \frac{32a_{n-1}a_{n-2}a_{n-13}}{a_n^3} - \\
& \frac{32a_{n-1}a_{n-3}a_{n-12}}{a_n^3} - \frac{32a_{n-1}a_{n-4}a_{n-11}}{a_n^3} - \frac{32a_{n-1}a_{n-5}a_{n-10}}{a_n^3} - \frac{32a_{n-1}a_{n-6}a_{n-9}}{a_n^3} - \\
& \frac{32a_{n-1}a_{n-7}a_{n-8}}{a_n^3} - \frac{32a_{n-2}a_{n-3}a_{n-11}}{a_n^3} - \frac{32a_{n-2}a_{n-4}a_{n-10}}{a_n^3} - \frac{32a_{n-2}a_{n-5}a_{n-9}}{a_n^3} - \\
& \frac{32a_{n-2}a_{n-6}a_{n-8}}{a_n^3} - \frac{32a_{n-3}a_{n-4}a_{n-9}}{a_n^3} - \frac{32a_{n-3}a_{n-5}a_{n-8}}{a_n^3} - \frac{32a_{n-3}a_{n-6}a_{n-7}}{a_n^3} - \\
& \frac{32a_{n-4}a_{n-5}a_{n-7}}{a_n^3} + \frac{48a_{n-1}^2a_{n-2}a_{n-12}}{a_n^4} + \frac{48a_{n-1}^2a_{n-3}a_{n-11}}{a_n^4} + \frac{48a_{n-1}^2a_{n-4}a_{n-10}}{a_n^4} + \\
& \frac{48a_{n-1}^2a_{n-5}a_{n-9}}{a_n^4} + \frac{48a_{n-1}^2a_{n-6}a_{n-8}}{a_n^4} + \frac{48a_{n-1}a_{n-3}a_{n-6}^2}{a_n^4} + \frac{48a_{n-1}a_{n-2}a_{n-11}^2}{a_n^4} + \\
& \frac{48a_{n-1}a_{n-3}a_{n-9}}{a_n^4} + \frac{48a_{n-1}a_{n-4}a_{n-7}}{a_n^4} + \frac{48a_{n-2}^2a_{n-3}a_{n-9}}{a_n^4} + \frac{48a_{n-2}^2a_{n-4}a_{n-8}}{a_n^4} + \\
& \frac{48a_{n-2}^2a_{n-5}a_{n-7}}{a_n^4} + \frac{48a_{n-2}a_{n-3}^2a_{n-8}}{a_n^4} + \frac{48a_{n-3}^2a_{n-4}a_{n-6}}{a_n^4} + \frac{48a_{n-2}a_{n-4}^2a_{n-6}}{a_n^4} +
\end{aligned}$$

$$\begin{aligned}
& \frac{48a_{n-3}a_{n-4}^2a_{n-5}}{a_n^4} + \frac{48a_{n-2}a_{n-4}a_{n-5}^2}{a_n^4} - \frac{64a_{n-1}^3a_{n-2}a_{n-11}}{a_n^5} - \frac{64a_{n-1}^3a_{n-3}a_{n-10}}{a_n^5} - \\
& \frac{64a_{n-1}^3a_{n-4}a_{n-9}}{a_n^5} - \frac{64a_{n-1}^3a_{n-5}a_{n-8}}{a_n^5} - \frac{64a_{n-1}^3a_{n-6}a_{n-7}}{a_n^5} - \frac{64a_{n-1}a_{n-3}a_{n-4}^3}{a_n^5} - \\
& \frac{64a_{n-1}a_{n-2}^3a_{n-9}}{a_n^5} - \frac{64a_{n-1}a_{n-3}^3a_{n-6}}{a_n^5} - \frac{64a_{n-2}^3a_{n-3}a_{n-7}}{a_n^5} - \frac{64a_{n-2}^3a_{n-4}a_{n-6}}{a_n^5} - \\
& \frac{64a_{n-2}a_{n-3}^3a_{n-5}}{a_n^5} + \frac{80a_{n-1}^4a_{n-2}a_{n-10}}{a_n^6} + \frac{80a_{n-1}^4a_{n-3}a_{n-9}}{a_n^6} + \frac{80a_{n-1}^4a_{n-4}a_{n-8}}{a_n^6} + \\
& \frac{80a_{n-1}^4a_{n-5}a_{n-7}}{a_n^6} + \frac{80a_{n-1}a_{n-2}^4a_{n-7}}{a_n^6} + \frac{80a_{n-2}^4a_{n-3}a_{n-5}}{a_n^6} - \frac{96a_{n-1}^5a_{n-2}a_{n-9}}{a_n^7} - \\
& \frac{96a_{n-1}^5a_{n-3}a_{n-8}}{a_n^7} - \frac{96a_{n-1}^5a_{n-4}a_{n-7}}{a_n^7} - \frac{96a_{n-1}a_{n-5}^5a_{n-6}}{a_n^7} - \frac{96a_{n-1}a_{n-2}^5a_{n-5}}{a_n^7} + \\
& \frac{112a_{n-1}^6a_{n-2}a_{n-8}}{a_n^8} + \frac{112a_{n-1}^6a_{n-3}a_{n-7}}{a_n^8} + \frac{112a_{n-1}^6a_{n-4}a_{n-6}}{a_n^8} + \frac{112a_{n-1}a_{n-2}^6a_{n-3}}{a_n^8} - \\
& \frac{128a_{n-1}^7a_{n-2}a_{n-7}}{a_n^9} - \frac{128a_{n-1}^7a_{n-3}a_{n-6}}{a_n^9} - \frac{128a_{n-1}^7a_{n-4}a_{n-5}}{a_n^9} + \frac{144a_{n-1}^8a_{n-2}a_{n-6}}{a_n^{10}} + \\
& \frac{144a_{n-1}^8a_{n-3}a_{n-5}}{a_n^{10}} - \frac{160a_{n-1}^9a_{n-2}a_{n-5}}{a_n^{11}} - \frac{160a_{n-1}^9a_{n-3}a_{n-4}}{a_n^{11}} + \frac{176a_{n-1}^{10}a_{n-2}a_{n-4}}{a_n^{12}} - \\
& \frac{192a_{n-1}^{11}a_{n-2}a_{n-3}}{a_n^{13}} - \frac{96a_{n-1}^2a_{n-2}^2a_{n-10}}{a_n^5} - \frac{96a_{n-1}^2a_{n-3}^2a_{n-8}}{a_n^5} - \frac{96a_{n-1}^2a_{n-4}^2a_{n-6}}{a_n^5} - \\
& \frac{96a_{n-1}^2a_{n-2}a_{n-6}^2}{a_n^5} - \frac{96a_{n-1}^2a_{n-4}a_{n-5}^2}{a_n^5} - \frac{96a_{n-2}^2a_{n-3}^2a_{n-6}}{a_n^5} - \frac{96a_{n-2}a_{n-3}^2a_{n-4}^2}{a_n^5} + \\
& \frac{160a_{n-1}^3a_{n-2}^2a_{n-9}}{a_n^6} + \frac{160a_{n-1}^3a_{n-3}^2a_{n-7}}{a_n^6} + \frac{160a_{n-1}^3a_{n-4}^2a_{n-5}}{a_n^6} + \frac{160a_{n-1}^3a_{n-3}a_{n-5}^2}{a_n^6} + \\
& \frac{160a_{n-1}^2a_{n-2}^3a_{n-4}}{a_n^6} + \frac{160a_{n-1}^2a_{n-2}^3a_{n-8}}{a_n^6} + \frac{160a_{n-1}^2a_{n-3}^3a_{n-5}}{a_n^6} + \frac{160a_{n-2}^3a_{n-3}^2a_{n-4}}{a_n^6} - \\
& \frac{240a_{n-1}^4a_{n-2}^2a_{n-8}}{a_n^7} - \frac{240a_{n-1}^4a_{n-3}^2a_{n-6}}{a_n^7} - \frac{240a_{n-1}^4a_{n-2}a_{n-5}^2}{a_n^7} - \frac{240a_{n-1}^2a_{n-2}a_{n-4}^4}{a_n^7} - \\
& \frac{240a_{n-1}^2a_{n-2}^4a_{n-6}}{a_n^7} + \frac{336a_{n-1}^5a_{n-2}^2a_{n-7}}{a_n^8} + \frac{336a_{n-1}^5a_{n-3}^2a_{n-5}}{a_n^8} + \frac{336a_{n-1}^5a_{n-3}a_{n-4}^2}{a_n^8} + \\
& \frac{336a_{n-1}^2a_{n-2}^5a_{n-4}}{a_n^8} - \frac{448a_{n-1}^6a_{n-2}^2a_{n-6}}{a_n^9} - \frac{448a_{n-1}^6a_{n-3}^2a_{n-4}}{a_n^9} - \frac{448a_{n-1}^6a_{n-2}a_{n-4}^2}{a_n^9} + \\
& \frac{576a_{n-1}^7a_{n-2}^2a_{n-5}}{a_n^{10}} - \frac{720a_{n-1}^8a_{n-2}^2a_{n-4}}{a_n^{11}} - \frac{720a_{n-1}^8a_{n-2}a_{n-3}^2}{a_n^{11}} + \frac{880a_{n-1}^9a_{n-2}^2a_{n-3}}{a_n^{12}} - \\
& \frac{320a_{n-1}^3a_{n-2}^3a_{n-7}}{a_n^7} - \frac{320a_{n-1}^3a_{n-3}^3a_{n-4}}{a_n^7} - \frac{320a_{n-1}a_{n-2}^3a_{n-3}^3}{a_n^7} + \frac{560a_{n-1}^4a_{n-2}^3a_{n-6}}{a_n^8} + \\
& \frac{560a_{n-1}^3a_{n-2}^4a_{n-5}}{a_n^8} - \frac{896a_{n-1}^5a_{n-2}^3a_{n-5}}{a_n^9} - \frac{896a_{n-1}^5a_{n-2}a_{n-3}^3}{a_n^9} - \frac{896a_{n-1}^3a_{n-2}^5a_{n-3}}{a_n^9} + \\
& \frac{1344a_{n-1}^6a_{n-2}^3a_{n-4}}{a_n^{10}} - \frac{1920a_{n-1}^7a_{n-2}^3a_{n-3}}{a_n^{11}} - \frac{1120a_{n-1}^4a_{n-2}^4a_{n-4}}{a_n^9} + \frac{2016a_{n-1}^5a_{n-2}^4a_{n-3}}{a_n^{10}} + \\
& \frac{240a_{n-1}^2a_{n-2}^2a_{n-5}^2}{a_n^6} + \frac{240a_{n-1}^2a_{n-3}^2a_{n-4}^2}{a_n^6} - \frac{480a_{n-1}^2a_{n-2}^3a_{n-4}^2}{a_n^7} + \frac{840a_{n-1}^2a_{n-2}^4a_{n-3}^2}{a_n^8} + \\
& \frac{840a_{n-1}^4a_{n-2}^2a_{n-4}^2}{a_n^8} + \frac{2016a_{n-1}^6a_{n-2}^2a_{n-3}^2}{a_n^{10}} + \frac{1120a_{n-1}^3a_{n-2}^2a_{n-3}^3}{a_n^8} - \frac{2240a_{n-1}^4a_{n-2}^3a_{n-3}^2}{a_n^9} + \\
& \frac{96a_{n-1}a_{n-2}a_{n-3}a_{n-10}}{a_n^4} + \frac{96a_{n-1}a_{n-2}a_{n-4}a_{n-9}}{a_n^4} + \frac{96a_{n-1}a_{n-2}a_{n-5}a_{n-8}}{a_n^4} + \\
& \frac{96a_{n-1}a_{n-2}a_{n-6}a_{n-7}}{a_n^4} + \frac{96a_{n-1}a_{n-3}a_{n-4}a_{n-8}}{a_n^4} + \frac{96a_{n-1}a_{n-3}a_{n-5}a_{n-7}}{a_n^4} +
\end{aligned}$$

$$\begin{aligned}
& \frac{96a_{n-1}a_{n-4}a_{n-5}a_{n-6}}{a_n^4} + \frac{96a_{n-2}a_{n-3}a_{n-4}a_{n-7}}{a_n^4} + \frac{96a_{n-2}a_{n-3}a_{n-5}a_{n-6}}{a_n^4} - \\
& \frac{192a_{n-1}^2a_{n-2}a_{n-3}a_{n-9}}{a_n^5} - \frac{192a_{n-1}^2a_{n-2}a_{n-4}a_{n-8}}{a_n^5} - \frac{192a_{n-1}^2a_{n-2}a_{n-5}a_{n-7}}{a_n^5} - \\
& \frac{192a_{n-1}^2a_{n-3}a_{n-4}a_{n-7}}{a_n^5} - \frac{192a_{n-1}^2a_{n-3}a_{n-5}a_{n-6}}{a_n^5} - \frac{192a_{n-1}a_{n-2}^2a_{n-3}a_{n-8}}{a_n^5} - \\
& \frac{192a_{n-1}a_{n-2}^2a_{n-4}a_{n-7}}{a_n^5} - \frac{192a_{n-1}a_{n-2}^2a_{n-5}a_{n-6}}{a_n^5} - \frac{192a_{n-1}a_{n-2}a_{n-3}^2a_{n-7}}{a_n^5} - \\
& \frac{192a_{n-1}a_{n-3}^2a_{n-4}a_{n-5}}{a_n^5} - \frac{192a_{n-1}a_{n-2}a_{n-4}^2a_{n-5}}{a_n^5} - \frac{192a_{n-1}a_{n-2}a_{n-3}a_{n-5}^2}{a_n^5} - \\
& \frac{192a_{n-2}^2a_{n-3}a_{n-4}a_{n-5}}{a_n^5} + \frac{320a_{n-1}^3a_{n-2}a_{n-3}a_{n-8}}{a_n^6} + \frac{320a_{n-1}^3a_{n-2}a_{n-4}a_{n-7}}{a_n^6} + \\
& \frac{320a_{n-1}^3a_{n-2}a_{n-5}a_{n-6}}{a_n^6} + \frac{320a_{n-1}^3a_{n-3}a_{n-4}a_{n-6}}{a_n^6} + \frac{320a_{n-1}a_{n-2}^3a_{n-3}a_{n-6}}{a_n^6} + \\
& \frac{320a_{n-1}a_{n-2}^3a_{n-4}a_{n-5}}{a_n^6} + \frac{320a_{n-1}a_{n-2}a_{n-3}^3a_{n-4}}{a_n^6} - \frac{480a_{n-1}^4a_{n-2}a_{n-3}a_{n-7}}{a_n^7} - \\
& \frac{480a_{n-1}^4a_{n-2}a_{n-4}a_{n-6}}{a_n^7} - \frac{480a_{n-1}^4a_{n-3}a_{n-4}a_{n-5}}{a_n^7} - \frac{480a_{n-1}a_{n-2}^4a_{n-3}a_{n-4}}{a_n^7} + \\
& \frac{672a_{n-1}^5a_{n-2}a_{n-3}a_{n-6}}{a_n^8} + \frac{672a_{n-1}^5a_{n-2}a_{n-4}a_{n-5}}{a_n^8} - \frac{896a_{n-1}^6a_{n-2}a_{n-3}a_{n-5}}{a_n^9} + \\
& \frac{1152a_{n-1}^7a_{n-2}a_{n-3}a_{n-4}}{a_n^{10}} + \frac{480a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-7}}{a_n^6} + \frac{480a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-6}}{a_n^6} + \\
& \frac{480a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-6}}{a_n^6} + \frac{480a_{n-1}a_{n-2}^2a_{n-3}^2a_{n-5}}{a_n^6} + \frac{480a_{n-1}a_{n-2}a_{n-3}a_{n-4}^2}{a_n^6} - \\
& \frac{960a_{n-1}^3a_{n-2}a_{n-3}a_{n-6}}{a_n^7} - \frac{960a_{n-1}^3a_{n-2}a_{n-4}a_{n-5}}{a_n^7} - \frac{960a_{n-1}^3a_{n-2}a_{n-3}^2a_{n-5}}{a_n^7} - \\
& \frac{960a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}^2}{a_n^7} - \frac{960a_{n-1}^2a_{n-2}^3a_{n-5}}{a_n^7} + \frac{1680a_{n-1}^4a_{n-2}^2a_{n-3}a_{n-5}}{a_n^8} + \\
& \frac{1680a_{n-1}^4a_{n-2}a_{n-3}^2a_{n-4}}{a_n^8} - \frac{2688a_{n-1}^5a_{n-2}^2a_{n-3}a_{n-4}}{a_n^9} + \frac{2240a_{n-1}^3a_{n-2}^3a_{n-3}a_{n-4}}{a_n^8} - \\
& \frac{1440a_{n-1}^2a_{n-2}^2a_{n-3}^2a_{n-4}}{a_n^7} - \frac{384a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-6}}{a_n^5} + \frac{960a_{n-1}^2a_{n-2}a_{n-3}a_{n-4}a_{n-5}}{a_n^6}
\end{aligned}$$

$$\begin{aligned}
\sum_{k=1}^n z_k^{17} = & - \frac{17a_{n-17}}{a_n} - \frac{a_{n-1}^{17}}{a_n^{17}} + \frac{17a_{n-1}a_{n-16}}{a_n^2} + \frac{17a_{n-2}a_{n-15}}{a_n^2} + \frac{17a_{n-3}a_{n-14}}{a_n^2} + \\
& \frac{17a_{n-4}a_{n-13}}{a_n^2} + \frac{17a_{n-5}a_{n-12}}{a_n^2} + \frac{17a_{n-6}a_{n-11}}{a_n^2} + \frac{17a_{n-7}a_{n-10}}{a_n^2} + \frac{17a_{n-8}a_{n-9}}{a_n^2} - \\
& \frac{17a_{n-1}^2a_{n-15}}{a_n^3} - \frac{17a_{n-1}a_{n-8}^2}{a_n^3} - \frac{17a_{n-5}a_{n-6}^2}{a_n^3} - \frac{17a_{n-2}a_{n-13}^2}{a_n^3} - \frac{17a_{n-3}a_{n-11}^2}{a_n^3} - \\
& \frac{17a_{n-4}a_{n-9}^2}{a_n^3} - \frac{17a_{n-5}a_{n-7}^2}{a_n^3} - \frac{17a_{n-3}a_{n-7}^2}{a_n^3} + \frac{17a_{n-1}^3a_{n-14}}{a_n^4} + \frac{17a_{n-2}^3a_{n-11}}{a_n^4} + \\
& \frac{17a_{n-3}^3a_{n-8}}{a_n^4} + \frac{17a_{n-4}^3a_{n-5}}{a_n^4} + \frac{17a_{n-2}a_{n-5}^3}{a_n^4} - \frac{17a_{n-1}^4a_{n-13}}{a_n^5} - \frac{17a_{n-1}a_{n-4}^4}{a_n^5} - \\
& \frac{17a_{n-2}^4a_{n-9}}{a_n^5} - \frac{17a_{n-3}^4a_{n-5}}{a_n^5} + \frac{17a_{n-1}^5a_{n-12}}{a_n^6} + \frac{17a_{n-2}a_{n-3}^5}{a_n^6} + \frac{17a_{n-2}^5a_{n-7}}{a_n^6} - \\
& \frac{17a_{n-1}^6a_{n-11}}{a_n^6} - \frac{17a_{n-2}^6a_{n-5}}{a_n^7} + \frac{17a_{n-1}^7a_{n-10}}{a_n^8} + \frac{17a_{n-2}^7a_{n-3}}{a_n^8} - \frac{17a_{n-1}^8a_{n-9}}{a_n^9} - \\
& \frac{17a_{n-1}a_{n-2}^8}{a_n^9} + \frac{17a_{n-1}^9a_{n-8}}{a_n^{10}} - \frac{17a_{n-1}^{10}a_{n-7}}{a_n^{11}} + \frac{17a_{n-1}^{11}a_{n-6}}{a_n^{12}} - \frac{17a_{n-1}^{12}a_{n-5}}{a_n^{13}}
\end{aligned}$$

$$\begin{aligned}
& \frac{17a_{n-1}^{13}a_{n-4}}{a_n^{14}} - \frac{17a_{n-1}^{14}a_{n-3}}{a_n^{15}} + \frac{17a_{n-1}^{15}a_{n-2}}{a_n^{16}} - \frac{34a_{n-1}^3a_{n-7}^2}{a_n^5} - \frac{34a_{n-3}^3a_{n-4}^2}{a_n^5} - \\
& \frac{34a_{n-1}^2a_{n-5}^3}{a_n^5} - \frac{51a_{n-1}^5a_{n-6}^2}{a_n^7} - \frac{51a_{n-1}^2a_{n-3}^5}{a_n^7} - \frac{68a_{n-1}^7a_{n-5}^2}{a_n^9} - \frac{85a_{n-1}^9a_{n-4}^2}{a_n^{11}} - \\
& \frac{102a_{n-1}^{11}a_{n-3}^2}{a_n^{13}} - \frac{119a_{n-1}^{13}a_{n-2}^2}{a_n^{15}} - \frac{85a_{n-2}^4a_{n-3}^3}{a_n^7} + \frac{119a_{n-1}^5a_{n-4}^3}{a_n^8} + \frac{204a_{n-1}^3a_{n-2}^7}{a_n^{10}} - \\
& \frac{255a_{n-1}^8a_{n-3}^3}{a_n^{11}} + \frac{442a_{n-1}^{11}a_{n-2}^3}{a_n^{14}} - \frac{238a_{n-1}^5a_{n-3}^4}{a_n^9} - \frac{935a_{n-1}^9a_{n-2}^4}{a_n^{13}} - \frac{714a_{n-1}^5a_{n-2}^6}{a_n^{11}} + \\
& \frac{1122a_{n-1}^7a_{n-2}^5}{a_n^{12}} - \frac{34a_{n-1}a_{n-2}a_{n-14}}{a_n^3} - \frac{34a_{n-1}a_{n-3}a_{n-13}}{a_n^3} - \frac{34a_{n-1}a_{n-4}a_{n-12}}{a_n^3} - \\
& \frac{34a_{n-1}a_{n-5}a_{n-11}}{a_n^3} - \frac{34a_{n-1}a_{n-6}a_{n-10}}{a_n^3} - \frac{34a_{n-1}a_{n-7}a_{n-9}}{a_n^3} - \frac{34a_{n-2}a_{n-3}a_{n-12}}{a_n^3} - \\
& \frac{34a_{n-2}a_{n-4}a_{n-11}}{a_n^3} - \frac{34a_{n-2}a_{n-5}a_{n-10}}{a_n^3} - \frac{34a_{n-2}a_{n-6}a_{n-9}}{a_n^3} - \frac{34a_{n-2}a_{n-7}a_{n-8}}{a_n^3} - \\
& \frac{34a_{n-3}a_{n-4}a_{n-10}}{a_n^3} - \frac{34a_{n-3}a_{n-5}a_{n-9}}{a_n^3} - \frac{34a_{n-3}a_{n-6}a_{n-8}}{a_n^3} - \frac{34a_{n-4}a_{n-5}a_{n-8}}{a_n^3} - \\
& \frac{34a_{n-4}a_{n-6}a_{n-7}}{a_n^3} + \frac{51a_{n-1}^2a_{n-2}a_{n-13}}{a_n^4} + \frac{51a_{n-1}^2a_{n-3}a_{n-12}}{a_n^4} + \frac{51a_{n-1}^2a_{n-4}a_{n-11}}{a_n^4} + \\
& \frac{51a_{n-1}^2a_{n-5}a_{n-10}}{a_n^4} + \frac{51a_{n-1}^2a_{n-6}a_{n-9}}{a_n^4} + \frac{51a_{n-1}^2a_{n-7}a_{n-8}}{a_n^4} + \frac{51a_{n-1}a_{n-4}a_{n-6}^2}{a_n^4} + \\
& \frac{51a_{n-1}a_{n-2}^2a_{n-12}}{a_n^4} + \frac{51a_{n-1}a_{n-3}^2a_{n-10}}{a_n^4} + \frac{51a_{n-1}a_{n-4}^2a_{n-8}}{a_n^4} + \frac{51a_{n-1}a_{n-5}^2a_{n-6}}{a_n^4} + \\
& \frac{51a_{n-1}a_{n-2}a_{n-7}^2}{a_n^4} + \frac{51a_{n-2}^2a_{n-3}a_{n-10}}{a_n^4} + \frac{51a_{n-2}^2a_{n-4}a_{n-9}}{a_n^4} + \frac{51a_{n-2}^2a_{n-5}a_{n-8}}{a_n^4} + \\
& \frac{51a_{n-2}^2a_{n-6}a_{n-7}}{a_n^4} + \frac{51a_{n-2}a_{n-3}^2a_{n-9}}{a_n^4} + \frac{51a_{n-3}a_{n-4}a_{n-7}}{a_n^4} + \frac{51a_{n-3}a_{n-5}a_{n-6}}{a_n^4} + \\
& \frac{51a_{n-2}a_{n-4}^2a_{n-7}}{a_n^4} + \frac{51a_{n-3}a_{n-4}^2a_{n-6}}{a_n^4} + \frac{51a_{n-3}a_{n-4}a_{n-5}^2}{a_n^4} - \frac{68a_{n-1}^3a_{n-2}a_{n-12}}{a_n^5} - \\
& \frac{68a_{n-1}^3a_{n-3}a_{n-11}}{a_n^5} - \frac{68a_{n-1}^3a_{n-4}a_{n-10}}{a_n^5} - \frac{68a_{n-1}^3a_{n-5}a_{n-9}}{a_n^5} - \frac{68a_{n-1}^3a_{n-6}a_{n-8}}{a_n^5} - \\
& \frac{68a_{n-1}a_{n-2}^3a_{n-10}}{a_n^5} - \frac{68a_{n-1}a_{n-3}^3a_{n-7}}{a_n^5} - \frac{68a_{n-1}a_{n-2}a_{n-4}^3}{a_n^5} - \frac{68a_{n-2}^3a_{n-3}a_{n-8}}{a_n^5} - \\
& \frac{68a_{n-2}a_{n-4}a_{n-7}}{a_n^5} - \frac{68a_{n-2}a_{n-5}a_{n-6}}{a_n^5} - \frac{68a_{n-2}a_{n-3}a_{n-6}}{a_n^5} - \frac{68a_{n-2}a_{n-3}a_{n-4}^3}{a_n^5} + \\
& \frac{85a_{n-1}^4a_{n-2}a_{n-11}}{a_n^6} + \frac{85a_{n-1}^4a_{n-3}a_{n-10}}{a_n^6} + \frac{85a_{n-1}^4a_{n-4}a_{n-9}}{a_n^6} + \frac{85a_{n-1}^4a_{n-5}a_{n-8}}{a_n^6} + \\
& \frac{85a_{n-1}^4a_{n-6}a_{n-7}}{a_n^6} + \frac{85a_{n-1}a_{n-2}^4a_{n-8}}{a_n^6} + \frac{85a_{n-1}a_{n-3}^4a_{n-4}}{a_n^6} + \frac{85a_{n-2}^4a_{n-3}a_{n-6}}{a_n^6} + \\
& \frac{85a_{n-2}a_{n-4}a_{n-5}}{a_n^6} - \frac{102a_{n-1}^5a_{n-2}a_{n-10}}{a_n^7} - \frac{102a_{n-1}^5a_{n-3}a_{n-9}}{a_n^7} - \frac{102a_{n-1}^5a_{n-4}a_{n-8}}{a_n^7} - \\
& \frac{102a_{n-1}^5a_{n-5}a_{n-7}}{a_n^7} - \frac{102a_{n-1}a_{n-2}^5a_{n-6}}{a_n^7} - \frac{102a_{n-2}^5a_{n-3}a_{n-4}}{a_n^7} + \frac{119a_{n-1}^6a_{n-2}a_{n-9}}{a_n^8} + \\
& \frac{119a_{n-1}^6a_{n-3}a_{n-8}}{a_n^8} + \frac{119a_{n-1}^6a_{n-4}a_{n-7}}{a_n^8} + \frac{119a_{n-1}^6a_{n-5}a_{n-6}}{a_n^8} + \frac{119a_{n-1}a_{n-2}^6a_{n-4}}{a_n^8} - \\
& \frac{136a_{n-1}^7a_{n-2}a_{n-8}}{a_n^9} - \frac{136a_{n-1}^7a_{n-3}a_{n-7}}{a_n^9} - \frac{136a_{n-1}^7a_{n-4}a_{n-6}}{a_n^9} + \frac{153a_{n-1}^8a_{n-2}a_{n-7}}{a_n^{10}} + \\
& \frac{153a_{n-1}^8a_{n-3}a_{n-6}}{a_n^{10}} + \frac{153a_{n-1}^8a_{n-4}a_{n-5}}{a_n^{10}} - \frac{170a_{n-1}^9a_{n-2}a_{n-6}}{a_n^{11}} - \frac{170a_{n-1}^9a_{n-3}a_{n-5}}{a_n^{11}} +
\end{aligned}$$

$$\begin{aligned}
& \frac{187a_{n-1}^{10}a_{n-2}a_{n-5}}{a_n^{12}} + \frac{187a_{n-1}^{10}a_{n-3}a_{n-4}}{a_n^{12}} - \frac{204a_{n-1}^{11}a_{n-2}a_{n-4}}{a_n^{13}} + \frac{221a_{n-1}^{12}a_{n-2}a_{n-3}}{a_n^{14}} - \\
& \frac{102a_{n-1}^2a_{n-3}a_{n-6}^2}{a_n^5} - \frac{102a_{n-1}^2a_{n-2}^2a_{n-11}}{a_n^5} - \frac{102a_{n-1}^2a_{n-3}^2a_{n-9}}{a_n^5} - \frac{102a_{n-1}^2a_{n-4}^2a_{n-7}}{a_n^5} - \\
& \frac{102a_{n-1}a_{n-2}^2a_{n-6}^2}{a_n^5} - \frac{102a_{n-1}a_{n-3}^2a_{n-5}^2}{a_n^5} - \frac{102a_{n-2}^2a_{n-3}^2a_{n-7}}{a_n^5} - \frac{102a_{n-2}^2a_{n-4}^2a_{n-5}}{a_n^5} - \\
& \frac{102a_{n-2}^2a_{n-3}a_{n-5}^2}{a_n^5} + \frac{170a_{n-1}^3a_{n-2}^2a_{n-10}}{a_n^6} + \frac{170a_{n-1}^3a_{n-3}^2a_{n-8}}{a_n^6} + \frac{170a_{n-1}^3a_{n-4}^2a_{n-6}}{a_n^6} + \\
& \frac{170a_{n-1}^3a_{n-4}a_{n-5}^2}{a_n^6} + \frac{170a_{n-1}^3a_{n-2}a_{n-6}^2}{a_n^6} + \frac{170a_{n-1}a_{n-2}^2a_{n-4}^3}{a_n^6} + \frac{170a_{n-1}a_{n-2}^3a_{n-5}^2}{a_n^6} + \\
& \frac{170a_{n-1}^2a_{n-3}a_{n-4}^3}{a_n^6} + \frac{170a_{n-1}^2a_{n-2}^3a_{n-9}}{a_n^6} + \frac{170a_{n-1}^2a_{n-3}^3a_{n-6}}{a_n^6} + \frac{170a_{n-2}^3a_{n-3}^2a_{n-5}}{a_n^6} + \\
& \frac{170a_{n-2}^3a_{n-3}a_{n-4}^2}{a_n^6} + \frac{170a_{n-2}^2a_{n-3}^3a_{n-4}}{a_n^6} - \frac{255a_{n-1}^4a_{n-2}^2a_{n-9}}{a_n^7} - \frac{255a_{n-1}^4a_{n-3}^2a_{n-7}}{a_n^7} - \\
& \frac{255a_{n-1}^4a_{n-4}^2a_{n-5}}{a_n^7} - \frac{255a_{n-1}^4a_{n-3}a_{n-5}^2}{a_n^7} - \frac{255a_{n-1}^2a_{n-2}^4a_{n-7}}{a_n^7} - \frac{255a_{n-1}a_{n-2}^2a_{n-3}^4}{a_n^7} - \\
& \frac{255a_{n-1}a_{n-2}^4a_{n-4}^2}{a_n^7} + \frac{357a_{n-1}^5a_{n-2}^2a_{n-8}}{a_n^8} + \frac{357a_{n-1}^5a_{n-3}^2a_{n-6}}{a_n^8} + \frac{357a_{n-1}^5a_{n-2}a_{n-5}^2}{a_n^8} + \\
& \frac{357a_{n-1}^2a_{n-2}^5a_{n-5}}{a_n^8} + \frac{357a_{n-1}a_{n-2}^5a_{n-3}^2}{a_n^8} - \frac{476a_{n-1}^6a_{n-2}^2a_{n-7}}{a_n^9} - \frac{476a_{n-1}^6a_{n-3}^2a_{n-5}}{a_n^9} - \\
& \frac{476a_{n-1}^6a_{n-3}a_{n-4}^2}{a_n^9} - \frac{476a_{n-1}^2a_{n-2}^6a_{n-3}}{a_n^9} + \frac{612a_{n-1}^7a_{n-2}^2a_{n-6}}{a_n^{10}} + \frac{612a_{n-1}^7a_{n-3}^2a_{n-4}}{a_n^{10}} + \\
& \frac{612a_{n-1}^7a_{n-2}a_{n-4}^2}{a_n^{10}} - \frac{765a_{n-1}^8a_{n-2}^2a_{n-5}}{a_n^{11}} + \frac{935a_{n-1}^9a_{n-2}^2a_{n-4}}{a_n^{12}} + \frac{935a_{n-1}^9a_{n-2}a_{n-3}^2}{a_n^{12}} - \\
& \frac{1122a_{n-1}^{10}a_{n-2}^2a_{n-3}}{a_n^{13}} - \frac{340a_{n-1}^3a_{n-2}a_{n-4}^3}{a_n^7} - \frac{340a_{n-1}^3a_{n-2}^3a_{n-8}}{a_n^7} - \frac{340a_{n-1}^3a_{n-3}^3a_{n-5}}{a_n^7} + \\
& \frac{595a_{n-1}^4a_{n-2}^3a_{n-7}}{a_n^8} + \frac{595a_{n-1}^4a_{n-3}^3a_{n-4}}{a_n^8} + \frac{595a_{n-1}^3a_{n-2}a_{n-4}^4}{a_n^8} + \frac{595a_{n-1}^3a_{n-2}^4a_{n-6}}{a_n^8} - \\
& \frac{952a_{n-1}^5a_{n-2}^3a_{n-6}}{a_n^9} - \frac{952a_{n-1}^3a_{n-2}^5a_{n-4}}{a_n^9} + \frac{1428a_{n-1}^6a_{n-2}^3a_{n-5}}{a_n^{10}} + \frac{1428a_{n-1}^6a_{n-2}a_{n-3}^3}{a_n^{10}} - \\
& \frac{2040a_{n-1}^7a_{n-2}^3a_{n-4}}{a_n^{11}} + \frac{2805a_{n-1}^8a_{n-2}^3a_{n-3}}{a_n^{12}} - \frac{1190a_{n-1}^4a_{n-2}^4a_{n-5}}{a_n^9} + \frac{2142a_{n-1}^5a_{n-2}^4a_{n-4}}{a_n^{10}} + \\
& \frac{2142a_{n-1}^4a_{n-2}^5a_{n-3}}{a_n^{10}} - \frac{3570a_{n-1}^6a_{n-2}^4a_{n-3}}{a_n^{11}} - \frac{510a_{n-1}^3a_{n-2}^2a_{n-5}^2}{a_n^7} - \frac{510a_{n-1}^3a_{n-3}^2a_{n-4}^2}{a_n^7} + \\
& \frac{1190a_{n-1}^3a_{n-2}^3a_{n-4}^2}{a_n^8} + \frac{1190a_{n-1}^2a_{n-2}^3a_{n-3}^3}{a_n^8} - \frac{2380a_{n-1}^3a_{n-2}^4a_{n-3}^2}{a_n^9} - \frac{1428a_{n-1}^5a_{n-2}^2a_{n-4}^2}{a_n^9} - \\
& \frac{3060a_{n-1}^7a_{n-2}^2a_{n-3}^2}{a_n^{11}} - \frac{2380a_{n-1}^4a_{n-2}^2a_{n-3}^3}{a_n^9} + \frac{4284a_{n-1}^5a_{n-2}^3a_{n-3}^2}{a_n^{10}} + \\
& \frac{102a_{n-1}a_{n-2}a_{n-3}a_{n-11}}{a_n^4} + \frac{102a_{n-1}a_{n-2}a_{n-4}a_{n-10}}{a_n^4} + \frac{102a_{n-1}a_{n-2}a_{n-5}a_{n-9}}{a_n^4} + \\
& \frac{102a_{n-1}a_{n-2}a_{n-6}a_{n-8}}{a_n^4} + \frac{102a_{n-1}a_{n-3}a_{n-4}a_{n-9}}{a_n^4} + \frac{102a_{n-1}a_{n-3}a_{n-5}a_{n-8}}{a_n^4} + \\
& \frac{102a_{n-2}a_{n-3}a_{n-4}a_{n-7}}{a_n^4} + \frac{102a_{n-2}a_{n-4}a_{n-5}a_{n-6}}{a_n^4} - \frac{204a_{n-1}^2a_{n-2}a_{n-3}a_{n-10}}{a_n^5} - \\
& \frac{204a_{n-1}^2a_{n-2}a_{n-4}a_{n-9}}{a_n^5} - \frac{204a_{n-1}^2a_{n-2}a_{n-5}a_{n-8}}{a_n^5} - \frac{204a_{n-1}^2a_{n-2}a_{n-6}a_{n-7}}{a_n^5}
\end{aligned}$$

$$\begin{aligned}
& \frac{204a_{n-1}^2a_{n-3}a_{n-4}a_{n-8}}{a_n^5} - \frac{204a_{n-1}^2a_{n-3}a_{n-5}a_{n-7}}{a_n^5} - \frac{204a_{n-1}^2a_{n-4}a_{n-5}a_{n-6}}{a_n^5} - \\
& \frac{204a_{n-1}a_{n-2}^2a_{n-3}a_{n-9}}{a_n^5} - \frac{204a_{n-1}a_{n-2}^2a_{n-4}a_{n-8}}{a_n^5} - \frac{204a_{n-1}a_{n-2}^2a_{n-5}a_{n-7}}{a_n^5} - \\
& \frac{204a_{n-1}a_{n-2}a_{n-3}^2a_{n-8}}{a_n^5} - \frac{204a_{n-1}a_{n-3}^2a_{n-4}a_{n-6}}{a_n^5} - \frac{204a_{n-1}a_{n-2}a_{n-4}^2a_{n-6}}{a_n^5} - \\
& \frac{204a_{n-1}a_{n-3}a_{n-4}^2a_{n-5}}{a_n^5} - \frac{204a_{n-1}a_{n-2}a_{n-4}a_{n-5}^2}{a_n^5} - \frac{204a_{n-2}^2a_{n-3}a_{n-4}a_{n-6}}{a_n^5} - \\
& \frac{204a_{n-2}a_{n-3}^2a_{n-4}a_{n-5}}{a_n^5} + \frac{340a_{n-1}^3a_{n-2}a_{n-3}a_{n-9}}{a_n^6} + \frac{340a_{n-1}^3a_{n-2}a_{n-4}a_{n-8}}{a_n^6} + \\
& \frac{340a_{n-1}^3a_{n-2}a_{n-5}a_{n-7}}{a_n^6} + \frac{340a_{n-1}^3a_{n-3}a_{n-4}a_{n-7}}{a_n^6} + \frac{340a_{n-1}^3a_{n-3}a_{n-5}a_{n-6}}{a_n^6} + \\
& \frac{340a_{n-1}a_{n-2}^3a_{n-3}a_{n-7}}{a_n^6} + \frac{340a_{n-1}a_{n-2}^3a_{n-4}a_{n-6}}{a_n^6} + \frac{340a_{n-1}a_{n-2}a_{n-3}^3a_{n-5}}{a_n^6} - \\
& \frac{510a_{n-1}^4a_{n-2}a_{n-3}a_{n-8}}{a_n^7} - \frac{510a_{n-1}^4a_{n-2}a_{n-4}a_{n-7}}{a_n^7} - \frac{510a_{n-1}^4a_{n-2}a_{n-5}a_{n-6}}{a_n^7} - \\
& \frac{510a_{n-1}^4a_{n-3}a_{n-4}a_{n-6}}{a_n^7} - \frac{510a_{n-1}a_{n-2}^4a_{n-3}a_{n-5}}{a_n^7} + \frac{714a_{n-1}^5a_{n-2}a_{n-3}a_{n-7}}{a_n^8} + \\
& \frac{714a_{n-1}^5a_{n-2}a_{n-4}a_{n-6}}{a_n^8} + \frac{714a_{n-1}^5a_{n-3}a_{n-4}a_{n-5}}{a_n^8} - \frac{952a_{n-1}^6a_{n-2}a_{n-3}a_{n-6}}{a_n^9} - \\
& \frac{952a_{n-1}^6a_{n-2}a_{n-4}a_{n-5}}{a_n^9} + \frac{1224a_{n-1}^7a_{n-2}a_{n-3}a_{n-5}}{a_n^{10}} - \frac{1530a_{n-1}^8a_{n-2}a_{n-3}a_{n-4}}{a_n^{11}} + \\
& \frac{510a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-8}}{a_n^6} + \frac{510a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-7}}{a_n^6} + \frac{510a_{n-1}^2a_{n-2}^2a_{n-5}a_{n-6}}{a_n^6} + \\
& \frac{510a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-7}}{a_n^6} + \frac{510a_{n-1}^2a_{n-3}^2a_{n-4}a_{n-5}}{a_n^6} + \frac{510a_{n-1}^2a_{n-2}a_{n-4}^2a_{n-5}}{a_n^6} + \\
& \frac{510a_{n-1}^2a_{n-2}a_{n-3}a_{n-5}^2}{a_n^6} + \frac{510a_{n-1}a_{n-2}^2a_{n-3}^2a_{n-6}}{a_n^6} + \frac{510a_{n-1}a_{n-2}a_{n-3}^2a_{n-4}^2}{a_n^6} - \\
& \frac{1020a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-7}}{a_n^7} - \frac{1020a_{n-1}^3a_{n-2}^2a_{n-4}a_{n-6}}{a_n^7} - \frac{1020a_{n-1}^3a_{n-2}a_{n-3}^2a_{n-6}}{a_n^7} - \\
& \frac{1020a_{n-1}^2a_{n-2}^3a_{n-3}a_{n-6}}{a_n^7} - \frac{1020a_{n-1}^2a_{n-2}^3a_{n-4}a_{n-5}}{a_n^7} - \frac{1020a_{n-1}^2a_{n-2}a_{n-3}^3a_{n-4}}{a_n^7} - \\
& \frac{1020a_{n-1}a_{n-2}^3a_{n-3}^2a_{n-4}}{a_n^7} + \frac{1785a_{n-1}^4a_{n-2}^2a_{n-3}a_{n-6}}{a_n^8} + \frac{1785a_{n-1}^4a_{n-2}^2a_{n-4}a_{n-5}}{a_n^8} + \\
& \frac{1785a_{n-1}^4a_{n-2}a_{n-3}^2a_{n-5}}{a_n^8} + \frac{1785a_{n-1}^4a_{n-2}a_{n-3}a_{n-4}^2}{a_n^8} + \frac{1785a_{n-1}^2a_{n-2}^4a_{n-3}a_{n-4}}{a_n^8} - \\
& \frac{2856a_{n-1}^5a_{n-2}^2a_{n-3}a_{n-5}}{a_n^9} - \frac{2856a_{n-1}^5a_{n-2}a_{n-3}^2a_{n-4}}{a_n^9} + \frac{4284a_{n-1}^6a_{n-2}^2a_{n-3}a_{n-4}}{a_n^{10}} + \\
& \frac{2380a_{n-1}^3a_{n-2}^3a_{n-3}a_{n-5}}{a_n^8} - \frac{4760a_{n-1}^4a_{n-2}^3a_{n-3}a_{n-4}}{a_n^9} - \frac{1530a_{n-1}^2a_{n-2}^2a_{n-3}^2a_{n-5}}{a_n^7} - \\
& \frac{1530a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-4}^2}{a_n^7} + \frac{3570a_{n-1}^3a_{n-2}^2a_{n-3}^2a_{n-4}}{a_n^8} - \frac{408a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-7}}{a_n^5} - \\
& \frac{408a_{n-1}a_{n-2}a_{n-3}a_{n-5}a_{n-6}}{a_n^5} + \frac{1020a_{n-1}^2a_{n-2}a_{n-3}a_{n-4}a_{n-6}}{a_n^6} + \\
& \frac{1020a_{n-1}a_{n-2}^2a_{n-3}a_{n-4}a_{n-5}}{a_n^6} - \frac{2040a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}a_{n-5}}{a_n^7}
\end{aligned}$$

$$\begin{aligned}
\sum_{k=1}^n Z_k^{18} = & - \frac{18a_{n-18}}{a_n} + \frac{9a_{n-9}^2}{a_n^2} - \frac{6a_{n-6}^3}{a_n^3} + \frac{3a_{n-3}^6}{a_n^6} - \frac{2a_{n-2}^9}{a_n^9} + \frac{a_{n-1}^{18}}{a_n^{18}} + \frac{18a_{n-1}a_{n-17}}{a_n^2} + \\
& \frac{18a_{n-2}a_{n-16}}{a_n^2} + \frac{18a_{n-3}a_{n-15}}{a_n^2} + \frac{18a_{n-4}a_{n-14}}{a_n^2} + \frac{18a_{n-5}a_{n-13}}{a_n^2} + \frac{18a_{n-6}a_{n-12}}{a_n^2} + \\
& \frac{18a_{n-7}a_{n-11}}{a_n^2} + \frac{18a_{n-8}a_{n-10}}{a_n^2} - \frac{18a_{n-1}^2a_{n-16}}{a_n^3} - \frac{18a_{n-2}a_{n-8}^2}{a_n^3} - \frac{18a_{n-2}^2a_{n-14}}{a_n^3} - \\
& \frac{18a_{n-3}^2a_{n-12}}{a_n^3} - \frac{18a_{n-4}^2a_{n-10}}{a_n^3} - \frac{18a_{n-5}^2a_{n-8}}{a_n^3} - \frac{18a_{n-4}a_{n-7}^2}{a_n^3} + \frac{18a_{n-1}^3a_{n-15}}{a_n^4} + \\
& \frac{18a_{n-2}^3a_{n-12}}{a_n^4} + \frac{18a_{n-3}^3a_{n-9}}{a_n^4} + \frac{18a_{n-4}^3a_{n-6}}{a_n^4} + \frac{18a_{n-3}a_{n-5}^3}{a_n^4} - \frac{18a_{n-1}^4a_{n-14}}{a_n^5} - \\
& \frac{18a_{n-2}a_{n-4}^4}{a_n^5} - \frac{18a_{n-2}^4a_{n-10}}{a_n^5} - \frac{18a_{n-3}^4a_{n-6}}{a_n^5} + \frac{18a_{n-1}^5a_{n-13}}{a_n^6} + \frac{18a_{n-2}^5a_{n-8}}{a_n^6} - \\
& \frac{18a_{n-1}^6a_{n-12}}{a_n^7} - \frac{18a_{n-2}^6a_{n-6}}{a_n^7} + \frac{18a_{n-1}^7a_{n-11}}{a_n^8} + \frac{18a_{n-2}^7a_{n-4}}{a_n^8} - \frac{18a_{n-1}^8a_{n-10}}{a_n^9} + \\
& \frac{18a_{n-1}^9a_{n-9}}{a_n^{10}} - \frac{18a_{n-1}^{10}a_{n-8}}{a_n^{11}} + \frac{18a_{n-1}^{11}a_{n-7}}{a_n^{12}} - \frac{18a_{n-1}^{12}a_{n-6}}{a_n^{13}} + \frac{18a_{n-1}^{13}a_{n-5}}{a_n^{14}} - \\
& \frac{18a_{n-1}^{14}a_{n-4}}{a_n^{15}} + \frac{18a_{n-1}^{15}a_{n-3}}{a_n^{16}} - \frac{18a_{n-1}^{16}a_{n-2}}{a_n^{17}} + \frac{27a_{n-1}^2a_{n-8}^2}{a_n^4} + \frac{27a_{n-2}^2a_{n-7}^2}{a_n^4} + \\
& \frac{27a_{n-3}^2a_{n-6}^2}{a_n^4} + \frac{27a_{n-4}^2a_{n-5}^2}{a_n^4} - \frac{36a_{n-3}^3a_{n-6}^2}{a_n^5} - \frac{36a_{n-3}^2a_{n-4}^3}{a_n^5} + \frac{45a_{n-1}^4a_{n-7}^2}{a_n^6} + \\
& \frac{45a_{n-1}^2a_{n-4}^4}{a_n^6} + \frac{45a_{n-2}^4a_{n-5}^2}{a_n^6} - \frac{54a_{n-2}^5a_{n-4}^2}{a_n^7} + \frac{63a_{n-1}^6a_{n-6}^2}{a_n^8} + \frac{63a_{n-2}^6a_{n-3}^2}{a_n^8} + \\
& \frac{81a_{n-1}^8a_{n-5}^2}{a_n^{10}} + \frac{81a_{n-1}^2a_{n-2}^8}{a_n^{10}} + \frac{99a_{n-1}^{10}a_{n-4}^2}{a_n^{12}} + \frac{117a_{n-1}^{12}a_{n-3}^2}{a_n^{14}} + \frac{135a_{n-1}^{14}a_{n-2}^2}{a_n^{16}} + \\
& \frac{60a_{n-1}^3a_{n-5}^3}{a_n^6} + \frac{60a_{n-2}^3a_{n-4}^3}{a_n^6} - \frac{90a_{n-2}^3a_{n-3}^4}{a_n^7} + \frac{126a_{n-1}^3a_{n-3}^5}{a_n^8} - \frac{168a_{n-1}^6a_{n-4}^3}{a_n^9} + \\
& \frac{330a_{n-1}^9a_{n-3}^3}{a_n^{12}} - \frac{546a_{n-1}^{12}a_{n-2}^3}{a_n^{15}} + \frac{378a_{n-1}^6a_{n-3}^4}{a_n^{10}} - \frac{540a_{n-1}^4a_{n-2}^7}{a_n^{11}} + \frac{1287a_{n-1}^{10}a_{n-2}^4}{a_n^{14}} - \\
& \frac{1782a_{n-1}^8a_{n-2}^5}{a_n^{13}} + \frac{1386a_{n-1}^6a_{n-2}^6}{a_n^{12}} - \frac{36a_{n-1}a_{n-2}a_{n-15}}{a_n^3} - \frac{36a_{n-1}a_{n-3}a_{n-14}}{a_n^3} - \\
& \frac{36a_{n-1}a_{n-4}a_{n-13}}{a_n^3} - \frac{36a_{n-1}a_{n-5}a_{n-12}}{a_n^3} - \frac{36a_{n-1}a_{n-6}a_{n-11}}{a_n^3} - \frac{36a_{n-1}a_{n-7}a_{n-10}}{a_n^3} - \\
& \frac{36a_{n-1}a_{n-8}a_{n-9}}{a_n^3} - \frac{36a_{n-2}a_{n-3}a_{n-13}}{a_n^3} - \frac{36a_{n-2}a_{n-4}a_{n-12}}{a_n^3} - \frac{36a_{n-2}a_{n-5}a_{n-11}}{a_n^3} - \\
& \frac{36a_{n-2}a_{n-6}a_{n-10}}{a_n^3} - \frac{36a_{n-2}a_{n-7}a_{n-9}}{a_n^3} - \frac{36a_{n-3}a_{n-4}a_{n-11}}{a_n^3} - \frac{36a_{n-3}a_{n-5}a_{n-10}}{a_n^3} - \\
& \frac{36a_{n-3}a_{n-6}a_{n-9}}{a_n^3} - \frac{36a_{n-3}a_{n-7}a_{n-8}}{a_n^3} - \frac{36a_{n-4}a_{n-5}a_{n-9}}{a_n^3} - \frac{36a_{n-4}a_{n-6}a_{n-8}}{a_n^3} - \\
& \frac{36a_{n-5}a_{n-6}a_{n-7}}{a_n^3} + \frac{54a_{n-1}^2a_{n-2}a_{n-14}}{a_n^4} + \frac{54a_{n-1}^2a_{n-3}a_{n-13}}{a_n^4} + \frac{54a_{n-1}^2a_{n-4}a_{n-12}}{a_n^4} + \\
& \frac{54a_{n-1}^2a_{n-5}a_{n-11}}{a_n^4} + \frac{54a_{n-1}^2a_{n-6}a_{n-10}}{a_n^4} + \frac{54a_{n-1}^2a_{n-7}a_{n-9}}{a_n^4} + \frac{54a_{n-1}a_{n-5}a_{n-6}^2}{a_n^4} + \\
& \frac{54a_{n-1}a_{n-2}^2a_{n-13}}{a_n^4} + \frac{54a_{n-1}a_{n-3}^2a_{n-11}}{a_n^4} + \frac{54a_{n-1}a_{n-4}^2a_{n-9}}{a_n^4} + \frac{54a_{n-1}a_{n-5}^2a_{n-7}}{a_n^4} + \\
& \frac{54a_{n-1}a_{n-3}a_{n-7}^2}{a_n^4} + \frac{54a_{n-2}a_{n-3}a_{n-11}}{a_n^4} + \frac{54a_{n-2}a_{n-4}a_{n-10}}{a_n^4} + \frac{54a_{n-2}a_{n-5}a_{n-9}}{a_n^4} + \\
& \frac{54a_{n-2}a_{n-6}a_{n-8}}{a_n^4} + \frac{54a_{n-2}a_{n-3}^2a_{n-10}}{a_n^4} + \frac{54a_{n-3}a_{n-4}a_{n-8}}{a_n^4} + \frac{54a_{n-3}a_{n-5}a_{n-7}}{a_n^4} +
\end{aligned}$$

$$\begin{aligned}
& \frac{54a_{n-2}a_{n-4}^2a_{n-8}}{a_n^4} + \frac{54a_{n-3}a_{n-4}^2a_{n-7}}{a_n^4} + \frac{54a_{n-2}a_{n-5}^2a_{n-6}}{a_n^4} + \frac{54a_{n-2}a_{n-4}a_{n-6}^2}{a_n^4} - \\
& \frac{72a_{n-1}^3a_{n-2}a_{n-13}}{a_n^5} - \frac{72a_{n-1}^3a_{n-3}a_{n-12}}{a_n^5} - \frac{72a_{n-1}^3a_{n-4}a_{n-11}}{a_n^5} - \frac{72a_{n-1}^3a_{n-5}a_{n-10}}{a_n^5} - \\
& \frac{72a_{n-1}^3a_{n-6}a_{n-9}}{a_n^5} - \frac{72a_{n-1}^3a_{n-7}a_{n-8}}{a_n^5} - \frac{72a_{n-1}a_{n-2}^3a_{n-11}}{a_n^5} - \frac{72a_{n-1}a_{n-3}^3a_{n-8}}{a_n^5} - \\
& \frac{72a_{n-1}a_{n-4}^3a_{n-5}}{a_n^5} - \frac{72a_{n-1}a_{n-2}a_{n-5}^3}{a_n^5} - \frac{72a_{n-2}^3a_{n-3}a_{n-9}}{a_n^5} - \frac{72a_{n-2}^3a_{n-4}a_{n-8}}{a_n^5} - \\
& \frac{72a_{n-2}a_{n-5}^3a_{n-7}}{a_n^5} - \frac{72a_{n-2}a_{n-3}^3a_{n-7}}{a_n^5} - \frac{72a_{n-3}^3a_{n-4}a_{n-5}}{a_n^5} + \frac{90a_{n-1}^4a_{n-2}a_{n-12}}{a_n^6} + \\
& \frac{90a_{n-1}^4a_{n-3}a_{n-11}}{a_n^6} + \frac{90a_{n-1}^4a_{n-4}a_{n-10}}{a_n^6} + \frac{90a_{n-1}^4a_{n-5}a_{n-9}}{a_n^6} + \frac{90a_{n-1}^4a_{n-6}a_{n-8}}{a_n^6} + \\
& \frac{90a_{n-1}a_{n-2}^4a_{n-9}}{a_n^6} + \frac{90a_{n-1}a_{n-3}^4a_{n-5}}{a_n^6} + \frac{90a_{n-2}^4a_{n-3}a_{n-7}}{a_n^6} + \frac{90a_{n-2}^4a_{n-4}a_{n-6}}{a_n^6} + \\
& \frac{90a_{n-2}a_{n-3}^4a_{n-4}}{a_n^6} - \frac{108a_{n-1}^5a_{n-2}a_{n-11}}{a_n^7} - \frac{108a_{n-1}^5a_{n-3}a_{n-10}}{a_n^7} - \frac{108a_{n-1}^5a_{n-4}a_{n-9}}{a_n^7} - \\
& \frac{108a_{n-1}^5a_{n-5}a_{n-8}}{a_n^7} - \frac{108a_{n-1}^5a_{n-6}a_{n-7}}{a_n^7} - \frac{108a_{n-1}a_{n-2}a_{n-5}^5}{a_n^7} - \frac{108a_{n-1}a_{n-2}^5a_{n-7}}{a_n^7} - \\
& \frac{108a_{n-2}^5a_{n-3}a_{n-5}}{a_n^7} + \frac{126a_{n-1}^6a_{n-2}a_{n-10}}{a_n^8} + \frac{126a_{n-1}^6a_{n-3}a_{n-9}}{a_n^8} + \frac{126a_{n-1}^6a_{n-4}a_{n-8}}{a_n^8} + \\
& \frac{126a_{n-1}^6a_{n-5}a_{n-7}}{a_n^8} + \frac{126a_{n-1}a_{n-2}^6a_{n-5}}{a_n^8} - \frac{144a_{n-1}^7a_{n-2}a_{n-9}}{a_n^9} - \frac{144a_{n-1}^7a_{n-3}a_{n-8}}{a_n^9} - \\
& \frac{144a_{n-1}^7a_{n-4}a_{n-7}}{a_n^9} - \frac{144a_{n-1}^7a_{n-5}a_{n-6}}{a_n^9} - \frac{144a_{n-1}a_{n-2}^7a_{n-3}}{a_n^9} + \frac{162a_{n-1}^8a_{n-2}a_{n-8}}{a_n^{10}} + \\
& \frac{162a_{n-1}^8a_{n-3}a_{n-7}}{a_n^{10}} + \frac{162a_{n-1}^8a_{n-4}a_{n-6}}{a_n^{10}} - \frac{180a_{n-1}^9a_{n-2}a_{n-7}}{a_n^{11}} - \frac{180a_{n-1}^9a_{n-3}a_{n-6}}{a_n^{11}} - \\
& \frac{180a_{n-1}^9a_{n-4}a_{n-5}}{a_n^{11}} + \frac{198a_{n-1}^{10}a_{n-2}a_{n-6}}{a_n^{12}} + \frac{198a_{n-1}^{10}a_{n-3}a_{n-5}}{a_n^{12}} - \frac{216a_{n-1}^{11}a_{n-2}a_{n-5}}{a_n^{13}} - \\
& \frac{216a_{n-1}^{11}a_{n-3}a_{n-4}}{a_n^{13}} + \frac{234a_{n-1}^{12}a_{n-2}a_{n-4}}{a_n^{14}} - \frac{252a_{n-1}^{13}a_{n-2}a_{n-3}}{a_n^{15}} - \frac{108a_{n-1}^2a_{n-4}a_{n-6}^2}{a_n^5} - \\
& \frac{108a_{n-1}^2a_{n-2}^2a_{n-12}}{a_n^5} - \frac{108a_{n-1}^2a_{n-3}^2a_{n-10}}{a_n^5} - \frac{108a_{n-1}^2a_{n-4}^2a_{n-8}}{a_n^5} - \frac{108a_{n-1}^2a_{n-5}^2a_{n-6}}{a_n^5} - \\
& \frac{108a_{n-1}^2a_{n-2}a_{n-7}^2}{a_n^5} - \frac{108a_{n-2}^2a_{n-3}^2a_{n-8}}{a_n^5} - \frac{108a_{n-2}^2a_{n-4}^2a_{n-6}}{a_n^5} - \frac{108a_{n-2}^2a_{n-4}a_{n-5}^2}{a_n^5} - \\
& \frac{108a_{n-2}a_{n-3}^2a_{n-5}^2}{a_n^5} + \frac{180a_{n-1}^3a_{n-3}a_{n-6}^2}{a_n^6} + \frac{180a_{n-1}^3a_{n-2}^2a_{n-11}}{a_n^6} + \frac{180a_{n-1}^3a_{n-3}^2a_{n-9}}{a_n^6} + \\
& \frac{180a_{n-1}^3a_{n-4}^2a_{n-7}}{a_n^6} + \frac{180a_{n-1}^2a_{n-2}^3a_{n-10}}{a_n^6} + \frac{180a_{n-1}^2a_{n-3}^3a_{n-7}}{a_n^6} + \frac{180a_{n-1}a_{n-3}^3a_{n-4}^2}{a_n^6} + \\
& \frac{180a_{n-2}^3a_{n-3}^2a_{n-6}}{a_n^6} + \frac{180a_{n-2}^2a_{n-3}^3a_{n-5}}{a_n^6} - \frac{270a_{n-1}^4a_{n-2}^2a_{n-10}}{a_n^7} - \frac{270a_{n-1}^4a_{n-3}^2a_{n-8}}{a_n^7} - \\
& \frac{270a_{n-1}^4a_{n-4}^2a_{n-6}}{a_n^7} - \frac{270a_{n-1}^4a_{n-5}a_{n-5}^2}{a_n^7} - \frac{270a_{n-1}^4a_{n-6}a_{n-4}^2}{a_n^7} - \frac{270a_{n-1}^2a_{n-2}^4a_{n-8}}{a_n^7} - \\
& \frac{270a_{n-1}^2a_{n-3}^4a_{n-4}}{a_n^7} - \frac{270a_{n-2}^4a_{n-3}^2a_{n-4}}{a_n^8} + \frac{378a_{n-1}^5a_{n-2}^2a_{n-9}}{a_n^8} + \frac{378a_{n-1}^5a_{n-3}^2a_{n-7}}{a_n^8} + \\
& \frac{378a_{n-1}^5a_{n-4}^2a_{n-5}}{a_n^8} + \frac{378a_{n-1}^5a_{n-3}a_{n-5}^2}{a_n^8} + \frac{378a_{n-1}^2a_{n-2}^5a_{n-6}}{a_n^8} - \frac{504a_{n-1}^6a_{n-2}^2a_{n-8}}{a_n^9} - \\
& \frac{504a_{n-1}^6a_{n-3}^2a_{n-6}}{a_n^9} - \frac{504a_{n-1}^6a_{n-4}^2a_{n-5}}{a_n^9} + \frac{648a_{n-1}^7a_{n-2}^2a_{n-7}}{a_n^{10}} +
\end{aligned}$$

$$\begin{aligned}
& \frac{648a_{n-1}^7a_{n-3}^2a_{n-5}}{a_n^{10}} + \frac{648a_{n-1}^7a_{n-3}a_{n-4}^2}{a_n^{10}} - \frac{810a_{n-1}^8a_{n-2}^2a_{n-6}}{a_n^{11}} - \frac{810a_{n-1}^8a_{n-3}^2a_{n-4}}{a_n^{11}} - \\
& \frac{810a_{n-1}^8a_{n-2}a_{n-4}^2}{a_n^{11}} + \frac{990a_{n-1}^9a_{n-2}^2a_{n-5}}{a_n^{12}} - \frac{1188a_{n-1}^{10}a_{n-2}^2a_{n-4}}{a_n^{13}} - \frac{1188a_{n-1}^{10}a_{n-2}a_{n-3}^2}{a_n^{13}} + \\
& \frac{1404a_{n-1}^{11}a_{n-2}^2a_{n-3}}{a_n^{14}} - \frac{360a_{n-1}^3a_{n-3}a_{n-4}^3}{a_n^7} - \frac{360a_{n-1}^3a_{n-2}^3a_{n-9}}{a_n^7} - \frac{360a_{n-1}^3a_{n-3}^3a_{n-6}}{a_n^7} + \\
& \frac{630a_{n-1}^4a_{n-2}a_{n-4}^3}{a_n^8} + \frac{630a_{n-1}^4a_{n-2}^3a_{n-8}}{a_n^8} + \frac{630a_{n-1}^4a_{n-3}^3a_{n-5}}{a_n^8} + \frac{630a_{n-1}^3a_{n-2}^4a_{n-7}}{a_n^8} + \\
& \frac{630a_{n-1}a_{n-2}^4a_{n-3}^3}{a_n^8} - \frac{1008a_{n-1}^5a_{n-2}^3a_{n-7}}{a_n^9} - \frac{1008a_{n-1}^5a_{n-3}^3a_{n-4}}{a_n^9} - \frac{1008a_{n-1}^3a_{n-2}^5a_{n-5}}{a_n^9} + \\
& \frac{1512a_{n-1}^6a_{n-2}^3a_{n-6}}{a_n^{10}} + \frac{1512a_{n-1}^3a_{n-2}^6a_{n-3}}{a_n^{10}} - \frac{2160a_{n-1}^7a_{n-2}^3a_{n-5}}{a_n^{11}} - \frac{2160a_{n-1}^7a_{n-2}a_{n-3}^3}{a_n^{11}} + \\
& \frac{2970a_{n-1}^8a_{n-2}^3a_{n-4}}{a_n^{12}} - \frac{3960a_{n-1}^9a_{n-2}^3a_{n-3}}{a_n^{13}} - \frac{1260a_{n-1}^4a_{n-2}a_{n-3}^4}{a_n^9} - \frac{1260a_{n-1}^4a_{n-2}^4a_{n-6}}{a_n^9} + \\
& \frac{2268a_{n-1}^5a_{n-2}^4a_{n-5}}{a_n^{10}} + \frac{2268a_{n-1}^4a_{n-2}^5a_{n-4}}{a_n^{10}} - \frac{3780a_{n-1}^6a_{n-2}^4a_{n-4}}{a_n^{11}} + \frac{5940a_{n-1}^7a_{n-2}^4a_{n-3}}{a_n^{12}} - \\
& \frac{4536a_{n-1}^5a_{n-2}^5a_{n-3}}{a_n^{11}} + \frac{270a_{n-1}^2a_{n-2}^2a_{n-6}^2}{a_n^6} + \frac{270a_{n-1}^2a_{n-3}^2a_{n-5}^2}{a_n^6} + \frac{270a_{n-2}^2a_{n-3}^2a_{n-4}^2}{a_n^6} - \\
& \frac{540a_{n-1}^2a_{n-2}^2a_{n-4}^3}{a_n^7} - \frac{540a_{n-1}^2a_{n-2}^3a_{n-5}^2}{a_n^7} + \frac{945a_{n-1}^4a_{n-2}^2a_{n-5}^2}{a_n^8} + \frac{945a_{n-1}^4a_{n-3}^2a_{n-4}^2}{a_n^8} + \\
& \frac{945a_{n-1}^2a_{n-2}^2a_{n-3}^4}{a_n^8} + \frac{945a_{n-1}^2a_{n-2}^4a_{n-4}^2}{a_n^8} - \frac{1512a_{n-1}^2a_{n-2}^5a_{n-3}^2}{a_n^9} + \frac{2268a_{n-1}^6a_{n-2}^2a_{n-4}^2}{a_n^{10}} + \\
& \frac{4455a_{n-1}^8a_{n-2}^2a_{n-3}^2}{a_n^{12}} - \frac{2520a_{n-1}^4a_{n-2}^3a_{n-4}^2}{a_n^9} + \frac{4536a_{n-1}^5a_{n-2}^2a_{n-3}^3}{a_n^{10}} - \frac{7560a_{n-1}^6a_{n-2}^3a_{n-3}^2}{a_n^{11}} + \\
& \frac{5670a_{n-1}^4a_{n-2}^4a_{n-3}^2}{a_n^{10}} - \frac{3360a_{n-1}^3a_{n-2}^3a_{n-3}^3}{a_n^9} + \frac{108a_{n-1}a_{n-2}a_{n-3}a_{n-12}}{a_n^4} + \\
& \frac{108a_{n-1}a_{n-2}a_{n-4}a_{n-11}}{a_n^4} + \frac{108a_{n-1}a_{n-2}a_{n-5}a_{n-10}}{a_n^4} + \frac{108a_{n-1}a_{n-2}a_{n-6}a_{n-9}}{a_n^4} + \\
& \frac{108a_{n-1}a_{n-2}a_{n-7}a_{n-8}}{a_n^4} + \frac{108a_{n-1}a_{n-3}a_{n-4}a_{n-10}}{a_n^4} + \frac{108a_{n-1}a_{n-3}a_{n-5}a_{n-9}}{a_n^4} + \\
& \frac{108a_{n-1}a_{n-3}a_{n-6}a_{n-8}}{a_n^4} + \frac{108a_{n-1}a_{n-4}a_{n-5}a_{n-8}}{a_n^4} + \frac{108a_{n-1}a_{n-4}a_{n-6}a_{n-7}}{a_n^4} + \\
& \frac{108a_{n-2}a_{n-3}a_{n-4}a_{n-9}}{a_n^4} + \frac{108a_{n-2}a_{n-3}a_{n-5}a_{n-8}}{a_n^4} + \frac{108a_{n-2}a_{n-3}a_{n-6}a_{n-7}}{a_n^4} + \\
& \frac{108a_{n-2}a_{n-4}a_{n-5}a_{n-7}}{a_n^4} + \frac{108a_{n-3}a_{n-4}a_{n-5}a_{n-6}}{a_n^4} - \frac{216a_{n-1}^2a_{n-2}a_{n-3}a_{n-11}}{a_n^5} - \\
& \frac{216a_{n-1}^2a_{n-2}a_{n-4}a_{n-10}}{a_n^5} - \frac{216a_{n-1}^2a_{n-2}a_{n-5}a_{n-9}}{a_n^5} - \frac{216a_{n-1}^2a_{n-2}a_{n-6}a_{n-8}}{a_n^5} - \\
& \frac{216a_{n-1}^2a_{n-3}a_{n-4}a_{n-9}}{a_n^5} - \frac{216a_{n-1}^2a_{n-3}a_{n-5}a_{n-8}}{a_n^5} - \frac{216a_{n-1}^2a_{n-3}a_{n-6}a_{n-7}}{a_n^5} - \\
& \frac{216a_{n-1}^2a_{n-4}a_{n-5}a_{n-7}}{a_n^5} - \frac{216a_{n-1}^2a_{n-2}a_{n-3}a_{n-10}}{a_n^5} - \frac{216a_{n-1}^2a_{n-2}a_{n-4}a_{n-9}}{a_n^5} - \\
& \frac{216a_{n-1}^2a_{n-2}a_{n-5}a_{n-8}}{a_n^5} - \frac{216a_{n-1}^2a_{n-2}a_{n-6}a_{n-7}}{a_n^5} - \frac{216a_{n-1}a_{n-2}a_{n-3}a_{n-9}}{a_n^5} - \\
& \frac{216a_{n-1}a_{n-2}a_{n-4}a_{n-7}}{a_n^5} - \frac{216a_{n-1}a_{n-2}a_{n-5}a_{n-6}}{a_n^5} - \frac{216a_{n-1}a_{n-2}a_{n-4}a_{n-7}}{a_n^5} - \\
& \frac{216a_{n-1}a_{n-3}a_{n-4}a_{n-6}}{a_n^5} - \frac{216a_{n-1}a_{n-3}a_{n-4}a_{n-5}}{a_n^5} - \frac{216a_{n-1}a_{n-2}a_{n-3}a_{n-6}}{a_n^5}
\end{aligned}$$

$$\begin{aligned}
& \frac{216a_{n-2}^2a_{n-3}a_{n-4}a_{n-7}}{a_n^5} - \frac{216a_{n-2}^2a_{n-3}a_{n-5}a_{n-6}}{a_n^5} - \frac{216a_{n-2}a_{n-3}^2a_{n-4}a_{n-6}}{a_n^5} - \\
& \frac{216a_{n-2}a_{n-3}a_{n-4}^2a_{n-5}}{a_n^5} + \frac{360a_{n-1}^3a_{n-2}a_{n-3}a_{n-10}}{a_n^6} + \frac{360a_{n-1}^3a_{n-2}a_{n-4}a_{n-9}}{a_n^6} + \\
& \frac{360a_{n-1}^3a_{n-2}a_{n-5}a_{n-8}}{a_n^6} + \frac{360a_{n-1}^3a_{n-2}a_{n-6}a_{n-7}}{a_n^6} + \frac{360a_{n-1}^3a_{n-3}a_{n-4}a_{n-8}}{a_n^6} + \\
& \frac{360a_{n-1}^3a_{n-3}a_{n-5}a_{n-7}}{a_n^6} + \frac{360a_{n-1}^3a_{n-4}a_{n-5}a_{n-6}}{a_n^6} + \frac{360a_{n-1}a_{n-2}^3a_{n-3}a_{n-8}}{a_n^6} + \\
& \frac{360a_{n-1}a_{n-2}^3a_{n-4}a_{n-7}}{a_n^6} + \frac{360a_{n-1}a_{n-2}^3a_{n-5}a_{n-6}}{a_n^6} + \frac{360a_{n-1}a_{n-2}a_{n-3}^3a_{n-6}}{a_n^6} + \\
& \frac{360a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-4}}{a_n^6} + \frac{360a_{n-2}^3a_{n-3}a_{n-4}a_{n-5}}{a_n^6} - \frac{540a_{n-1}^4a_{n-2}a_{n-3}a_{n-9}}{a_n^7} - \\
& \frac{540a_{n-1}^4a_{n-2}a_{n-4}a_{n-8}}{a_n^7} - \frac{540a_{n-1}^4a_{n-2}a_{n-5}a_{n-7}}{a_n^7} - \frac{540a_{n-1}^4a_{n-3}a_{n-4}a_{n-7}}{a_n^7} - \\
& \frac{540a_{n-1}^4a_{n-3}a_{n-5}a_{n-6}}{a_n^7} - \frac{540a_{n-1}a_{n-2}^4a_{n-3}a_{n-6}}{a_n^7} - \frac{540a_{n-1}a_{n-2}^4a_{n-4}a_{n-5}}{a_n^7} + \\
& \frac{756a_{n-1}^5a_{n-2}a_{n-3}a_{n-8}}{a_n^8} + \frac{756a_{n-1}^5a_{n-2}a_{n-4}a_{n-7}}{a_n^8} + \frac{756a_{n-1}^5a_{n-2}a_{n-5}a_{n-6}}{a_n^8} + \\
& \frac{756a_{n-1}^5a_{n-3}a_{n-4}a_{n-6}}{a_n^8} + \frac{756a_{n-1}a_{n-2}^5a_{n-3}a_{n-4}}{a_n^8} - \frac{1008a_{n-1}^6a_{n-2}a_{n-3}a_{n-7}}{a_n^9} - \\
& \frac{1008a_{n-1}^6a_{n-2}a_{n-4}a_{n-6}}{a_n^9} - \frac{1008a_{n-1}^6a_{n-3}a_{n-4}a_{n-5}}{a_n^9} + \frac{1296a_{n-1}^7a_{n-2}a_{n-3}a_{n-6}}{a_n^{10}} + \\
& \frac{1296a_{n-1}^7a_{n-2}a_{n-4}a_{n-5}}{a_n^{10}} - \frac{1620a_{n-1}^8a_{n-2}a_{n-3}a_{n-5}}{a_n^{11}} + \frac{1980a_{n-1}^9a_{n-2}a_{n-3}a_{n-4}}{a_n^{12}} + \\
& \frac{540a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-9}}{a_n^6} + \frac{540a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-8}}{a_n^6} + \frac{540a_{n-1}^2a_{n-2}^2a_{n-5}a_{n-7}}{a_n^6} + \\
& \frac{540a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-8}}{a_n^6} + \frac{540a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-6}}{a_n^6} + \frac{540a_{n-1}^2a_{n-2}a_{n-4}^2a_{n-6}}{a_n^6} + \\
& \frac{540a_{n-1}^2a_{n-3}a_{n-4}^2a_{n-5}}{a_n^6} + \frac{540a_{n-1}^2a_{n-2}a_{n-4}a_{n-5}^2}{a_n^6} + \frac{540a_{n-1}a_{n-2}^2a_{n-3}^2a_{n-7}}{a_n^6} + \\
& \frac{540a_{n-1}a_{n-2}^2a_{n-4}^2a_{n-5}}{a_n^6} + \frac{540a_{n-1}a_{n-2}^2a_{n-3}a_{n-5}^2}{a_n^6} - \frac{1080a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-8}}{a_n^7} - \\
& \frac{1080a_{n-1}^3a_{n-2}^2a_{n-4}a_{n-7}}{a_n^7} - \frac{1080a_{n-1}^3a_{n-2}^2a_{n-5}a_{n-6}}{a_n^7} - \frac{1080a_{n-1}^3a_{n-2}a_{n-3}^2a_{n-7}}{a_n^7} - \\
& \frac{1080a_{n-1}^3a_{n-3}^2a_{n-4}a_{n-5}}{a_n^7} - \frac{1080a_{n-1}^3a_{n-2}a_{n-4}^2a_{n-5}}{a_n^7} - \frac{1080a_{n-1}^3a_{n-2}a_{n-3}a_{n-5}^2}{a_n^7} - \\
& \frac{1080a_{n-1}^2a_{n-2}^3a_{n-3}a_{n-7}}{a_n^7} - \frac{1080a_{n-1}^2a_{n-2}^3a_{n-4}a_{n-6}}{a_n^7} - \frac{1080a_{n-1}^2a_{n-2}a_{n-3}^3a_{n-5}}{a_n^7} - \\
& \frac{1080a_{n-1}^3a_{n-2}^2a_{n-3}^2a_{n-5}}{a_n^7} - \frac{1080a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}^2}{a_n^7} - \frac{1080a_{n-1}a_{n-2}^2a_{n-3}^2a_{n-4}}{a_n^7} + \\
& \frac{1890a_{n-1}^4a_{n-2}^2a_{n-3}a_{n-7}}{a_n^8} + \frac{1890a_{n-1}^4a_{n-2}^2a_{n-4}a_{n-6}}{a_n^8} + \frac{1890a_{n-1}^4a_{n-2}a_{n-3}^2a_{n-6}}{a_n^8} + \\
& \frac{1890a_{n-1}^2a_{n-2}^4a_{n-3}a_{n-5}}{a_n^8} - \frac{3024a_{n-1}^5a_{n-2}^2a_{n-3}a_{n-6}}{a_n^9} - \frac{3024a_{n-1}^5a_{n-2}^2a_{n-4}a_{n-5}}{a_n^9} - \\
& \frac{3024a_{n-1}^5a_{n-2}a_{n-3}^2a_{n-5}}{a_n^9} - \frac{3024a_{n-1}^5a_{n-2}a_{n-3}a_{n-4}^2}{a_n^9} + \frac{4536a_{n-1}^6a_{n-2}^2a_{n-3}a_{n-5}}{a_n^{10}} + \\
& \frac{4536a_{n-1}^6a_{n-2}a_{n-3}^2a_{n-4}}{a_n^{10}} - \frac{6480a_{n-1}^7a_{n-2}^2a_{n-3}a_{n-4}}{a_n^{11}} + \frac{2520a_{n-1}^3a_{n-2}^3a_{n-3}a_{n-6}}{a_n^8} +
\end{aligned}$$

$$\begin{aligned}
& \frac{2520a_{n-1}^3a_{n-2}^3a_{n-4}a_{n-5}}{a_n^8} + \frac{2520a_{n-1}^3a_{n-2}a_{n-3}^3a_{n-4}}{a_n^8} - \frac{5040a_{n-1}^4a_{n-2}^3a_{n-3}a_{n-5}}{a_n^9} - \\
& \frac{5040a_{n-1}^3a_{n-2}^4a_{n-3}a_{n-4}}{a_n^9} + \frac{9072a_{n-1}^5a_{n-2}^3a_{n-3}a_{n-4}}{a_n^{10}} - \frac{1620a_{n-1}^2a_{n-2}^2a_{n-3}^2a_{n-6}}{a_n^7} - \\
& \frac{1620a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-4}^2}{a_n^7} + \frac{3780a_{n-1}^3a_{n-2}^2a_{n-3}^2a_{n-5}}{a_n^8} + \frac{3780a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-4}^2}{a_n^8} + \\
& \frac{3780a_{n-1}^2a_{n-2}^3a_{n-3}^2a_{n-4}}{a_n^8} - \frac{7560a_{n-1}^4a_{n-2}^2a_{n-3}^2a_{n-4}}{a_n^9} - \frac{432a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-8}}{a_n^5} - \\
& \frac{432a_{n-1}a_{n-2}a_{n-3}a_{n-5}a_{n-7}}{a_n^5} - \frac{432a_{n-1}a_{n-2}a_{n-4}a_{n-5}a_{n-6}}{a_n^5} + \\
& \frac{1080a_{n-1}^2a_{n-2}a_{n-3}a_{n-4}a_{n-7}}{a_n^6} + \frac{1080a_{n-1}^2a_{n-2}a_{n-3}a_{n-5}a_{n-6}}{a_n^6} + \\
& \frac{1080a_{n-1}a_{n-2}^2a_{n-3}a_{n-4}a_{n-6}}{a_n^6} + \frac{1080a_{n-1}a_{n-2}a_{n-3}^2a_{n-4}a_{n-5}}{a_n^6} - \\
& \frac{1080a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}a_{n-6}}{a_n^7} + \frac{3780a_{n-1}^4a_{n-2}a_{n-3}a_{n-4}a_{n-5}}{a_n^8} - \\
& \frac{3240a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-4}a_{n-5}}{a_n^7} \\
& \sum_{k=1}^n Z_k^{19} = -\frac{19a_{n-19}}{a_n} - \frac{a_{n-1}^{19}}{a_n^{19}} + \frac{19a_{n-1}a_{n-18}}{a_n^2} + \frac{19a_{n-2}a_{n-17}}{a_n^2} + \frac{19a_{n-3}a_{n-16}}{a_n^2} + \\
& \frac{19a_{n-4}a_{n-15}}{a_n^2} + \frac{19a_{n-5}a_{n-14}}{a_n^2} + \frac{19a_{n-6}a_{n-13}}{a_n^2} + \frac{19a_{n-7}a_{n-12}}{a_n^2} + \frac{19a_{n-8}a_{n-11}}{a_n^2} + \\
& \frac{19a_{n-9}a_{n-10}}{a_n^2} - \frac{19a_{n-1}^2a_{n-17}}{a_n^3} - \frac{19a_{n-1}a_{n-9}^2}{a_n^3} - \frac{19a_{n-3}a_{n-8}^2}{a_n^3} - \frac{19a_{n-2}a_{n-15}}{a_n^3} - \\
& \frac{19a_{n-3}a_{n-13}}{a_n^3} - \frac{19a_{n-4}a_{n-11}}{a_n^3} - \frac{19a_{n-5}a_{n-9}}{a_n^3} - \frac{19a_{n-6}a_{n-7}}{a_n^3} - \frac{19a_{n-5}a_{n-7}^2}{a_n^3} + \\
& \frac{19a_{n-1}^3a_{n-16}}{a_n^4} + \frac{19a_{n-1}a_{n-6}^3}{a_n^4} + \frac{19a_{n-2}^3a_{n-13}}{a_n^4} + \frac{19a_{n-3}^3a_{n-10}}{a_n^4} + \frac{19a_{n-4}^3a_{n-7}}{a_n^4} + \\
& \frac{19a_{n-4}a_{n-5}^3}{a_n^4} - \frac{19a_{n-1}^4a_{n-15}}{a_n^5} - \frac{19a_{n-3}a_{n-4}^4}{a_n^5} - \frac{19a_{n-2}^4a_{n-11}}{a_n^5} - \frac{19a_{n-3}^4a_{n-7}}{a_n^5} + \\
& \frac{19a_{n-1}^5a_{n-14}}{a_n^6} + \frac{19a_{n-2}^5a_{n-9}}{a_n^6} + \frac{19a_{n-3}^5a_{n-4}}{a_n^6} - \frac{19a_{n-1}^6a_{n-13}}{a_n^7} - \frac{19a_{n-1}a_{n-3}^6}{a_n^7} - \\
& \frac{19a_{n-2}^6a_{n-7}}{a_n^7} + \frac{19a_{n-1}^7a_{n-12}}{a_n^8} + \frac{19a_{n-2}^7a_{n-5}}{a_n^8} - \frac{19a_{n-1}^8a_{n-11}}{a_n^9} - \frac{19a_{n-2}^8a_{n-3}}{a_n^9} + \\
& \frac{19a_{n-1}^9a_{n-10}}{a_n^9} + \frac{19a_{n-1}a_{n-2}^9}{a_n^{10}} - \frac{19a_{n-1}^{10}a_{n-9}}{a_n^{11}} + \frac{19a_{n-1}^{11}a_{n-8}}{a_n^{12}} - \frac{19a_{n-1}^{12}a_{n-7}}{a_n^{13}} + \\
& \frac{19a_{n-1}^{13}a_{n-6}}{a_n^{14}} - \frac{19a_{n-1}^{14}a_{n-5}}{a_n^{15}} + \frac{19a_{n-1}^{15}a_{n-4}}{a_n^{16}} - \frac{19a_{n-1}^{16}a_{n-3}}{a_n^{17}} + \frac{19a_{n-1}^{17}a_{n-2}}{a_n^{18}} - \frac{38a_{n-1}^3a_{n-8}^2}{a_n^5} - \\
& \frac{38a_{n-3}^3a_{n-5}^2}{a_n^5} - \frac{38a_{n-2}^2a_{n-5}^3}{a_n^5} - \frac{57a_{n-1}^5a_{n-7}^2}{a_n^7} - \frac{57a_{n-2}^2a_{n-3}^5}{a_n^7} - \frac{76a_{n-1}^7a_{n-6}^2}{a_n^9} - \\
& \frac{95a_{n-1}^9a_{n-5}^2}{a_n^{11}} - \frac{114a_{n-1}^{11}a_{n-4}^2}{a_n^{13}} - \frac{133a_{n-1}^{13}a_{n-3}^2}{a_n^{15}} - \frac{152a_{n-1}^{15}a_{n-2}^2}{a_n^{17}} - \frac{95a_{n-1}^4a_{n-5}^3}{a_n^7} - \\
& \frac{95a_{n-1}^3a_{n-4}^4}{a_n^7} + \frac{133a_{n-2}^5a_{n-3}^3}{a_n^8} + \frac{228a_{n-1}^7a_{n-4}^3}{a_n^{10}} - \frac{285a_{n-1}^3a_{n-2}^8}{a_n^{11}} - \frac{418a_{n-1}^{10}a_{n-3}^3}{a_n^{13}} + \\
& \frac{665a_{n-1}^{13}a_{n-2}^3}{a_n^{16}} - \frac{266a_{n-1}^4a_{n-3}^5}{a_n^9} - \frac{570a_{n-1}^7a_{n-3}^4}{a_n^{11}} - \frac{1729a_{n-1}^{11}a_{n-2}^4}{a_n^{15}} + \frac{1254a_{n-1}^5a_{n-2}^7}{a_n^{12}} + \\
& \frac{2717a_{n-1}^9a_{n-2}^5}{a_n^{14}} - \frac{2508a_{n-1}^7a_{n-2}^6}{a_n^{13}} - \frac{38a_{n-1}a_{n-2}a_{n-16}}{a_n^3} - \frac{38a_{n-1}a_{n-3}a_{n-15}}{a_n^3}
\end{aligned}$$

$$\begin{aligned}
& \frac{38a_{n-1}a_{n-4}a_{n-14}}{a_n^3} - \frac{38a_{n-1}a_{n-5}a_{n-13}}{a_n^3} - \frac{38a_{n-1}a_{n-6}a_{n-12}}{a_n^3} - \frac{38a_{n-1}a_{n-7}a_{n-11}}{a_n^3} - \\
& \frac{38a_{n-1}a_{n-8}a_{n-10}}{a_n^3} - \frac{38a_{n-2}a_{n-3}a_{n-14}}{a_n^3} - \frac{38a_{n-2}a_{n-4}a_{n-13}}{a_n^3} - \frac{38a_{n-2}a_{n-5}a_{n-12}}{a_n^3} - \\
& \frac{38a_{n-2}a_{n-6}a_{n-11}}{a_n^3} - \frac{38a_{n-2}a_{n-7}a_{n-10}}{a_n^3} - \frac{38a_{n-2}a_{n-8}a_{n-9}}{a_n^3} - \frac{38a_{n-3}a_{n-4}a_{n-12}}{a_n^3} - \\
& \frac{38a_{n-3}a_{n-5}a_{n-11}}{a_n^3} - \frac{38a_{n-3}a_{n-6}a_{n-10}}{a_n^3} - \frac{38a_{n-3}a_{n-7}a_{n-9}}{a_n^3} - \frac{38a_{n-4}a_{n-5}a_{n-10}}{a_n^3} - \\
& \frac{38a_{n-4}a_{n-6}a_{n-9}}{a_n^3} - \frac{38a_{n-4}a_{n-7}a_{n-8}}{a_n^3} - \frac{38a_{n-5}a_{n-6}a_{n-8}}{a_n^3} + \frac{57a_{n-1}^2a_{n-2}a_{n-15}}{a_n^4} + \\
& \frac{57a_{n-1}^2a_{n-3}a_{n-14}}{a_n^4} + \frac{57a_{n-1}^2a_{n-4}a_{n-13}}{a_n^4} + \frac{57a_{n-1}^2a_{n-5}a_{n-12}}{a_n^4} + \frac{57a_{n-1}^2a_{n-6}a_{n-11}}{a_n^4} + \\
& \frac{57a_{n-1}^2a_{n-7}a_{n-10}}{a_n^4} + \frac{57a_{n-1}^2a_{n-8}a_{n-9}}{a_n^4} + \frac{57a_{n-1}a_{n-2}a_{n-8}^2}{a_n^4} + \frac{57a_{n-1}a_{n-2}a_{n-14}}{a_n^4} + \\
& \frac{57a_{n-1}a_{n-3}a_{n-12}}{a_n^4} + \frac{57a_{n-1}a_{n-4}a_{n-10}}{a_n^4} + \frac{57a_{n-1}a_{n-5}a_{n-8}}{a_n^4} + \frac{57a_{n-1}a_{n-4}a_{n-7}}{a_n^4} + \\
& \frac{57a_{n-2}a_{n-3}a_{n-12}}{a_n^4} + \frac{57a_{n-2}a_{n-4}a_{n-11}}{a_n^4} + \frac{57a_{n-2}a_{n-5}a_{n-10}}{a_n^4} + \frac{57a_{n-2}a_{n-6}a_{n-9}}{a_n^4} + \\
& \frac{57a_{n-2}a_{n-7}a_{n-8}}{a_n^4} + \frac{57a_{n-2}a_{n-3}a_{n-11}}{a_n^4} + \frac{57a_{n-3}a_{n-4}a_{n-9}}{a_n^4} + \frac{57a_{n-3}a_{n-5}a_{n-8}}{a_n^4} + \\
& \frac{57a_{n-3}a_{n-6}a_{n-7}}{a_n^4} + \frac{57a_{n-2}a_{n-4}a_{n-9}}{a_n^4} + \frac{57a_{n-3}a_{n-4}a_{n-8}}{a_n^4} + \frac{57a_{n-4}a_{n-5}a_{n-6}}{a_n^4} + \\
& \frac{57a_{n-2}a_{n-5}a_{n-7}}{a_n^4} + \frac{57a_{n-3}a_{n-5}a_{n-6}}{a_n^4} + \frac{57a_{n-2}a_{n-5}a_{n-6}^2}{a_n^4} + \frac{57a_{n-3}a_{n-4}a_{n-6}^2}{a_n^4} + \\
& \frac{57a_{n-2}a_{n-3}a_{n-7}}{a_n^4} - \frac{76a_{n-1}^3a_{n-2}a_{n-14}}{a_n^5} - \frac{76a_{n-1}^3a_{n-3}a_{n-13}}{a_n^5} - \frac{76a_{n-1}^3a_{n-4}a_{n-12}}{a_n^5} - \\
& \frac{76a_{n-1}^3a_{n-5}a_{n-11}}{a_n^5} - \frac{76a_{n-1}^3a_{n-6}a_{n-10}}{a_n^5} - \frac{76a_{n-1}^3a_{n-7}a_{n-9}}{a_n^5} - \frac{76a_{n-1}^3a_{n-2}a_{n-12}}{a_n^5} - \\
& \frac{76a_{n-1}^3a_{n-3}a_{n-9}}{a_n^5} - \frac{76a_{n-1}^3a_{n-4}a_{n-6}}{a_n^5} - \frac{76a_{n-1}a_{n-3}a_{n-5}^3}{a_n^5} - \frac{76a_{n-2}^3a_{n-3}a_{n-10}}{a_n^5} - \\
& \frac{76a_{n-2}^3a_{n-4}a_{n-9}}{a_n^5} - \frac{76a_{n-2}^3a_{n-5}a_{n-8}}{a_n^5} - \frac{76a_{n-2}^3a_{n-6}a_{n-7}}{a_n^5} - \frac{76a_{n-2}a_{n-3}^3a_{n-8}}{a_n^5} - \\
& \frac{76a_{n-3}^3a_{n-4}a_{n-6}}{a_n^5} - \frac{76a_{n-2}a_{n-4}a_{n-5}}{a_n^5} + \frac{95a_{n-1}^4a_{n-2}a_{n-13}}{a_n^6} + \frac{95a_{n-1}^4a_{n-3}a_{n-12}}{a_n^6} + \\
& \frac{95a_{n-1}^4a_{n-4}a_{n-11}}{a_n^6} + \frac{95a_{n-1}^4a_{n-5}a_{n-10}}{a_n^6} + \frac{95a_{n-1}^4a_{n-6}a_{n-9}}{a_n^6} + \frac{95a_{n-1}^4a_{n-7}a_{n-8}}{a_n^6} + \\
& \frac{95a_{n-1}a_{n-2}a_{n-4}^4}{a_n^6} + \frac{95a_{n-1}a_{n-2}a_{n-5}a_{n-10}}{a_n^6} + \frac{95a_{n-1}a_{n-3}a_{n-6}^4}{a_n^6} + \frac{95a_{n-2}a_{n-3}a_{n-8}}{a_n^6} + \\
& \frac{95a_{n-2}a_{n-4}a_{n-7}}{a_n^6} + \frac{95a_{n-2}a_{n-5}a_{n-6}}{a_n^6} + \frac{95a_{n-2}a_{n-3}a_{n-5}^4}{a_n^6} - \frac{114a_{n-1}^5a_{n-2}a_{n-12}}{a_n^7} - \\
& \frac{114a_{n-1}^5a_{n-3}a_{n-11}}{a_n^7} - \frac{114a_{n-1}^5a_{n-4}a_{n-10}}{a_n^7} - \frac{114a_{n-1}^5a_{n-5}a_{n-9}}{a_n^7} - \frac{114a_{n-1}^5a_{n-6}a_{n-8}}{a_n^7} - \\
& \frac{114a_{n-1}a_{n-2}a_{n-8}}{a_n^7} - \frac{114a_{n-2}^5a_{n-3}a_{n-6}}{a_n^7} - \frac{114a_{n-2}^5a_{n-4}a_{n-5}}{a_n^7} + \frac{133a_{n-1}^6a_{n-2}a_{n-11}}{a_n^8} + \\
& \frac{133a_{n-1}^6a_{n-3}a_{n-10}}{a_n^8} + \frac{133a_{n-1}^6a_{n-4}a_{n-9}}{a_n^8} + \frac{133a_{n-1}^6a_{n-5}a_{n-8}}{a_n^8} + \frac{133a_{n-1}^6a_{n-6}a_{n-7}}{a_n^8} + \\
& \frac{133a_{n-1}a_{n-2}a_{n-6}}{a_n^8} + \frac{133a_{n-2}^6a_{n-3}a_{n-4}}{a_n^8} - \frac{152a_{n-1}^7a_{n-2}a_{n-10}}{a_n^9} - \frac{152a_{n-1}^7a_{n-3}a_{n-9}}{a_n^9} -
\end{aligned}$$

$$\begin{aligned}
& \frac{152a_{n-1}^7a_{n-4}a_{n-8}}{a_n^9} - \frac{152a_{n-1}^7a_{n-5}a_{n-7}}{a_n^9} - \frac{152a_{n-1}a_{n-2}^7a_{n-4}}{a_n^9} + \frac{171a_{n-1}^8a_{n-2}a_{n-9}}{a_n^{10}} + \\
& \frac{171a_{n-1}^8a_{n-3}a_{n-8}}{a_n^{10}} + \frac{171a_{n-1}^8a_{n-4}a_{n-7}}{a_n^{10}} + \frac{171a_{n-1}^8a_{n-5}a_{n-6}}{a_n^{10}} - \frac{190a_{n-1}^9a_{n-2}a_{n-8}}{a_n^{11}} - \\
& \frac{190a_{n-1}^9a_{n-3}a_{n-7}}{a_n^{11}} - \frac{190a_{n-1}^9a_{n-4}a_{n-6}}{a_n^{11}} + \frac{209a_{n-1}^{10}a_{n-2}a_{n-7}}{a_n^{12}} + \frac{209a_{n-1}^{10}a_{n-3}a_{n-6}}{a_n^{12}} + \\
& \frac{209a_{n-1}^{10}a_{n-4}a_{n-5}}{a_n^{12}} - \frac{228a_{n-1}^{11}a_{n-2}a_{n-6}}{a_n^{13}} - \frac{228a_{n-1}^{11}a_{n-3}a_{n-5}}{a_n^{13}} + \frac{247a_{n-1}^{12}a_{n-2}a_{n-5}}{a_n^{14}} + \\
& \frac{247a_{n-1}^{12}a_{n-3}a_{n-4}}{a_n^{14}} - \frac{266a_{n-1}^{13}a_{n-2}a_{n-4}}{a_n^{15}} + \frac{285a_{n-1}^{14}a_{n-2}a_{n-3}}{a_n^{16}} - \frac{114a_{n-1}^2a_{n-5}a_{n-6}^2}{a_n^5} - \\
& \frac{114a_{n-1}^2a_{n-2}a_{n-13}}{a_n^5} - \frac{114a_{n-1}^2a_{n-3}a_{n-11}}{a_n^5} - \frac{114a_{n-1}^2a_{n-4}a_{n-9}}{a_n^5} - \frac{114a_{n-1}^2a_{n-5}a_{n-7}}{a_n^5} - \\
& \frac{114a_{n-1}^2a_{n-3}a_{n-7}^2}{a_n^5} - \frac{114a_{n-1}a_{n-2}^2a_{n-7}^2}{a_n^5} - \frac{114a_{n-1}a_{n-3}^2a_{n-6}^2}{a_n^5} - \frac{114a_{n-1}a_{n-4}^2a_{n-5}^2}{a_n^5} - \\
& \frac{114a_{n-2}^2a_{n-3}^2a_{n-9}}{a_n^5} - \frac{114a_{n-2}^2a_{n-4}^2a_{n-7}}{a_n^5} - \frac{114a_{n-2}^2a_{n-3}a_{n-6}^2}{a_n^5} - \frac{114a_{n-3}^2a_{n-4}^2a_{n-5}}{a_n^5} + \\
& \frac{190a_{n-1}^3a_{n-4}a_{n-6}^2}{a_n^6} + \frac{190a_{n-1}^3a_{n-2}a_{n-12}}{a_n^6} + \frac{190a_{n-1}^3a_{n-3}a_{n-10}}{a_n^6} + \frac{190a_{n-1}^3a_{n-4}a_{n-8}}{a_n^6} + \\
& \frac{190a_{n-1}^3a_{n-5}a_{n-6}}{a_n^6} + \frac{190a_{n-1}^3a_{n-2}a_{n-7}^2}{a_n^6} + \frac{190a_{n-1}^2a_{n-2}^3a_{n-11}}{a_n^6} + \frac{190a_{n-1}^2a_{n-3}a_{n-8}}{a_n^6} + \\
& \frac{190a_{n-1}^2a_{n-4}a_{n-5}}{a_n^6} + \frac{190a_{n-1}^2a_{n-2}a_{n-5}^3}{a_n^6} + \frac{190a_{n-1}a_{n-2}^3a_{n-6}^2}{a_n^6} + \frac{190a_{n-1}a_{n-3}^2a_{n-4}^3}{a_n^6} + \\
& \frac{190a_{n-2}^3a_{n-3}a_{n-7}}{a_n^6} + \frac{190a_{n-2}^3a_{n-4}a_{n-5}}{a_n^6} + \frac{190a_{n-2}^2a_{n-3}^3a_{n-6}}{a_n^6} + \frac{190a_{n-2}^2a_{n-3}a_{n-4}^3}{a_n^6} + \\
& \frac{190a_{n-2}^3a_{n-3}a_{n-5}}{a_n^6} + \frac{190a_{n-2}a_{n-3}^3a_{n-4}^2}{a_n^6} - \frac{285a_{n-1}^4a_{n-3}a_{n-6}^2}{a_n^7} - \frac{285a_{n-1}^4a_{n-2}a_{n-11}}{a_n^7} - \\
& \frac{285a_{n-1}^4a_{n-3}a_{n-9}}{a_n^7} - \frac{285a_{n-1}^4a_{n-4}a_{n-7}}{a_n^7} - \frac{285a_{n-1}^2a_{n-2}^4a_{n-9}}{a_n^7} - \frac{285a_{n-1}^2a_{n-3}^4a_{n-5}}{a_n^7} - \\
& \frac{285a_{n-1}a_{n-2}^4a_{n-5}^2}{a_n^7} - \frac{285a_{n-2}^4a_{n-3}a_{n-5}}{a_n^7} - \frac{285a_{n-2}^4a_{n-3}a_{n-4}^2}{a_n^7} + \frac{399a_{n-1}^5a_{n-2}a_{n-10}}{a_n^8} + \\
& \frac{399a_{n-1}^5a_{n-3}a_{n-8}}{a_n^8} + \frac{399a_{n-1}^5a_{n-4}a_{n-6}}{a_n^8} + \frac{399a_{n-1}^5a_{n-2}a_{n-6}^2}{a_n^8} + \\
& \frac{399a_{n-1}^2a_{n-2}a_{n-3}^5}{a_n^8} + \frac{399a_{n-1}^2a_{n-2}^5a_{n-7}}{a_n^8} + \frac{399a_{n-1}a_{n-2}^5a_{n-4}^2}{a_n^8} - \frac{532a_{n-1}^6a_{n-2}a_{n-9}}{a_n^9} - \\
& \frac{532a_{n-1}^6a_{n-3}a_{n-7}}{a_n^9} - \frac{532a_{n-1}^6a_{n-4}a_{n-5}}{a_n^9} - \frac{532a_{n-1}^2a_{n-2}a_{n-5}^2}{a_n^9} - \frac{532a_{n-1}^2a_{n-3}a_{n-7}}{a_n^9} - \\
& \frac{532a_{n-1}a_{n-2}^6a_{n-3}^2}{a_n^9} + \frac{684a_{n-1}^7a_{n-2}a_{n-8}}{a_n^{10}} + \frac{684a_{n-1}^7a_{n-3}a_{n-6}}{a_n^{10}} + \frac{684a_{n-1}^7a_{n-2}a_{n-5}^2}{a_n^{10}} + \\
& \frac{684a_{n-1}^2a_{n-2}^7a_{n-3}}{a_n^{10}} - \frac{855a_{n-1}^8a_{n-2}^2a_{n-7}}{a_n^{11}} - \frac{855a_{n-1}^8a_{n-3}^2a_{n-5}}{a_n^{11}} - \frac{855a_{n-1}^8a_{n-4}^2a_{n-3}}{a_n^{11}} + \\
& \frac{1045a_{n-1}^9a_{n-2}^2a_{n-6}}{a_n^{12}} + \frac{1045a_{n-1}^9a_{n-3}^2a_{n-4}}{a_n^{12}} + \frac{1045a_{n-1}^9a_{n-2}a_{n-4}^2}{a_n^{12}} - \frac{1254a_{n-1}^{10}a_{n-2}^2a_{n-5}}{a_n^{13}} + \\
& \frac{1482a_{n-1}^{11}a_{n-2}^2a_{n-4}}{a_n^{14}} + \frac{1482a_{n-1}^{11}a_{n-3}^2a_{n-3}}{a_n^{14}} - \frac{1729a_{n-1}^{12}a_{n-2}^2a_{n-3}}{a_n^{15}} - \frac{380a_{n-1}^3a_{n-2}^3a_{n-10}}{a_n^7} - \\
& \frac{380a_{n-1}^3a_{n-3}^3a_{n-7}}{a_n^7} - \frac{380a_{n-1}a_{n-2}^3a_{n-4}^3}{a_n^8} - \frac{380a_{n-2}^3a_{n-3}^3a_{n-4}}{a_n^8} + \frac{665a_{n-1}^4a_{n-3}a_{n-4}^3}{a_n^8} + \\
& \frac{665a_{n-1}^4a_{n-2}^3a_{n-9}}{a_n^8} + \frac{665a_{n-1}^4a_{n-3}^3a_{n-6}}{a_n^8} + \frac{665a_{n-1}^3a_{n-2}^4a_{n-8}}{a_n^8} + \frac{665a_{n-1}^3a_{n-3}^4a_{n-4}}{a_n^8} +
\end{aligned}$$

$$\begin{aligned}
& \frac{665a_{n-1}a_{n-2}^3a_{n-3}^4}{a_n^8} - \frac{1064a_{n-1}^5a_{n-2}a_{n-4}^3}{a_n^9} - \frac{1064a_{n-1}^5a_{n-2}^3a_{n-8}}{a_n^9} - \frac{1064a_{n-1}^5a_{n-3}^3a_{n-5}}{a_n^9} - \\
& \frac{1064a_{n-1}^3a_{n-2}^5a_{n-6}}{a_n^9} + \frac{1596a_{n-1}^6a_{n-2}^3a_{n-7}}{a_n^{10}} + \frac{1596a_{n-1}^6a_{n-3}^3a_{n-4}}{a_n^{10}} + \frac{1596a_{n-1}^3a_{n-2}^6a_{n-4}}{a_n^{10}} - \\
& \frac{2280a_{n-1}^7a_{n-2}^3a_{n-6}}{a_n^{11}} + \frac{3135a_{n-1}^8a_{n-2}^3a_{n-5}}{a_n^{12}} + \frac{3135a_{n-1}^8a_{n-2}a_{n-3}^3}{a_n^{12}} - \frac{4180a_{n-1}^9a_{n-2}^3a_{n-4}}{a_n^{13}} + \\
& \frac{5434a_{n-1}^{10}a_{n-2}^3a_{n-3}}{a_n^{14}} - \frac{1330a_{n-1}^4a_{n-2}^4a_{n-7}}{a_n^9} + \frac{2394a_{n-1}^5a_{n-2}a_{n-3}^4}{a_n^{10}} + \frac{2394a_{n-1}^5a_{n-2}^4a_{n-6}}{a_n^{10}} - \\
& \frac{3990a_{n-1}^6a_{n-2}^4a_{n-5}}{a_n^{11}} - \frac{3990a_{n-1}^4a_{n-2}^6a_{n-3}}{a_n^{11}} + \frac{6270a_{n-1}^7a_{n-2}^4a_{n-4}}{a_n^{12}} - \frac{9405a_{n-1}^8a_{n-2}^4a_{n-3}}{a_n^{13}} + \\
& \frac{2394a_{n-1}^4a_{n-2}^5a_{n-5}}{a_n^{10}} - \frac{4788a_{n-1}^5a_{n-2}^5a_{n-4}}{a_n^{11}} + \frac{8778a_{n-1}^6a_{n-2}^5a_{n-3}}{a_n^{12}} - \frac{570a_{n-1}^3a_{n-2}^2a_{n-6}^2}{a_n^7} - \\
& \frac{570a_{n-1}^3a_{n-3}^2a_{n-5}^2}{a_n^7} - \frac{570a_{n-1}^2a_{n-3}^3a_{n-4}^2}{a_n^7} - \frac{1596a_{n-1}^5a_{n-2}^2a_{n-5}^2}{a_n^9} - \frac{1596a_{n-1}^5a_{n-3}^2a_{n-4}^2}{a_n^9} - \\
& \frac{3420a_{n-1}^7a_{n-2}^2a_{n-4}^2}{a_n^{11}} - \frac{6270a_{n-1}^9a_{n-2}^2a_{n-3}^2}{a_n^{13}} + \frac{1330a_{n-1}^3a_{n-2}^2a_{n-4}^3}{a_n^8} + \frac{1330a_{n-1}^3a_{n-2}^3a_{n-5}^2}{a_n^8} - \\
& \frac{2660a_{n-1}^3a_{n-2}^4a_{n-4}^2}{a_n^9} - \frac{2660a_{n-1}^3a_{n-2}^2a_{n-3}^4}{a_n^9} - \frac{2660a_{n-1}^2a_{n-2}^4a_{n-3}^3}{a_n^9} + \frac{4788a_{n-1}^5a_{n-2}^3a_{n-4}^2}{a_n^{10}} + \\
& \frac{4788a_{n-1}^3a_{n-2}^5a_{n-3}^2}{a_n^{10}} - \frac{7980a_{n-1}^6a_{n-2}^2a_{n-3}^3}{a_n^{11}} + \frac{12540a_{n-1}^7a_{n-2}^3a_{n-3}^2}{a_n^{12}} - \\
& \frac{11970a_{n-1}^5a_{n-2}^4a_{n-3}^2}{a_n^{11}} + \frac{7980a_{n-1}^4a_{n-2}^3a_{n-3}^3}{a_n^{10}} + \frac{114a_{n-1}a_{n-2}a_{n-3}a_{n-13}}{a_n^4} + \\
& \frac{114a_{n-1}a_{n-2}a_{n-4}a_{n-12}}{a_n^4} + \frac{114a_{n-1}a_{n-2}a_{n-5}a_{n-11}}{a_n^4} + \frac{114a_{n-1}a_{n-2}a_{n-6}a_{n-10}}{a_n^4} + \\
& \frac{114a_{n-1}a_{n-2}a_{n-7}a_{n-9}}{a_n^4} + \frac{114a_{n-1}a_{n-3}a_{n-4}a_{n-11}}{a_n^4} + \frac{114a_{n-1}a_{n-3}a_{n-5}a_{n-10}}{a_n^4} + \\
& \frac{114a_{n-1}a_{n-3}a_{n-6}a_{n-9}}{a_n^4} + \frac{114a_{n-1}a_{n-3}a_{n-7}a_{n-8}}{a_n^4} + \frac{114a_{n-1}a_{n-4}a_{n-5}a_{n-9}}{a_n^4} + \\
& \frac{114a_{n-1}a_{n-4}a_{n-6}a_{n-8}}{a_n^4} + \frac{114a_{n-1}a_{n-5}a_{n-6}a_{n-7}}{a_n^4} + \frac{114a_{n-2}a_{n-3}a_{n-4}a_{n-10}}{a_n^4} + \\
& \frac{114a_{n-2}a_{n-3}a_{n-5}a_{n-9}}{a_n^4} + \frac{114a_{n-2}a_{n-3}a_{n-6}a_{n-8}}{a_n^4} + \frac{114a_{n-2}a_{n-4}a_{n-5}a_{n-8}}{a_n^4} + \\
& \frac{114a_{n-2}a_{n-4}a_{n-6}a_{n-7}}{a_n^4} + \frac{114a_{n-3}a_{n-4}a_{n-5}a_{n-7}}{a_n^4} - \frac{228a_{n-1}^2a_{n-2}a_{n-3}a_{n-12}}{a_n^5} - \\
& \frac{228a_{n-1}^2a_{n-2}a_{n-4}a_{n-11}}{a_n^5} - \frac{228a_{n-1}^2a_{n-2}a_{n-5}a_{n-10}}{a_n^5} - \frac{228a_{n-1}^2a_{n-2}a_{n-6}a_{n-9}}{a_n^5} - \\
& \frac{228a_{n-1}^2a_{n-2}a_{n-7}a_{n-8}}{a_n^5} - \frac{228a_{n-1}^2a_{n-3}a_{n-4}a_{n-10}}{a_n^5} - \frac{228a_{n-1}^2a_{n-3}a_{n-5}a_{n-9}}{a_n^5} - \\
& \frac{228a_{n-1}^2a_{n-3}a_{n-6}a_{n-8}}{a_n^5} - \frac{228a_{n-1}^2a_{n-4}a_{n-5}a_{n-8}}{a_n^5} - \frac{228a_{n-1}^2a_{n-4}a_{n-6}a_{n-7}}{a_n^5} - \\
& \frac{228a_{n-1}a_{n-2}^2a_{n-3}a_{n-11}}{a_n^5} - \frac{228a_{n-1}a_{n-2}^2a_{n-4}a_{n-10}}{a_n^5} - \frac{228a_{n-1}a_{n-2}^2a_{n-5}a_{n-9}}{a_n^5} - \\
& \frac{228a_{n-1}a_{n-2}^2a_{n-6}a_{n-8}}{a_n^5} - \frac{228a_{n-1}a_{n-2}a_{n-3}^2a_{n-10}}{a_n^5} - \frac{228a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-8}}{a_n^5} - \\
& \frac{228a_{n-1}a_{n-2}^2a_{n-5}a_{n-7}}{a_n^5} - \frac{228a_{n-1}a_{n-2}a_{n-4}a_{n-8}^2}{a_n^5} - \frac{228a_{n-1}a_{n-3}a_{n-4}a_{n-7}^2}{a_n^5} - \\
& \frac{228a_{n-1}a_{n-2}a_{n-5}a_{n-6}}{a_n^5} - \frac{228a_{n-1}a_{n-2}a_{n-4}a_{n-6}^2}{a_n^5} - \frac{228a_{n-2}^2a_{n-3}a_{n-4}a_{n-8}}{a_n^5}
\end{aligned}$$

$$\begin{aligned}
& \frac{228a_{n-2}^2a_{n-3}a_{n-5}a_{n-7}}{a_n^5} - \frac{228a_{n-2}^2a_{n-4}a_{n-5}a_{n-6}}{a_n^5} - \frac{228a_{n-2}a_{n-3}^2a_{n-4}a_{n-7}}{a_n^5} - \\
& \frac{228a_{n-2}a_{n-3}^2a_{n-5}a_{n-6}}{a_n^5} - \frac{228a_{n-2}a_{n-3}a_{n-4}^2a_{n-6}}{a_n^5} - \frac{228a_{n-2}a_{n-3}a_{n-4}a_{n-5}^2}{a_n^5} + \\
& \frac{380a_{n-1}^3a_{n-2}a_{n-3}a_{n-11}}{a_n^6} + \frac{380a_{n-1}^3a_{n-2}a_{n-4}a_{n-10}}{a_n^6} + \frac{380a_{n-1}^3a_{n-2}a_{n-5}a_{n-9}}{a_n^6} + \\
& \frac{380a_{n-1}^3a_{n-2}a_{n-6}a_{n-8}}{a_n^6} + \frac{380a_{n-1}^3a_{n-3}a_{n-4}a_{n-9}}{a_n^6} + \frac{380a_{n-1}^3a_{n-3}a_{n-5}a_{n-8}}{a_n^6} + \\
& \frac{380a_{n-1}^3a_{n-3}a_{n-6}a_{n-7}}{a_n^6} + \frac{380a_{n-1}^3a_{n-4}a_{n-5}a_{n-7}}{a_n^6} + \frac{380a_{n-1}a_{n-2}^3a_{n-3}a_{n-9}}{a_n^6} + \\
& \frac{380a_{n-1}a_{n-2}^3a_{n-4}a_{n-8}}{a_n^6} + \frac{380a_{n-1}a_{n-2}^3a_{n-5}a_{n-7}}{a_n^6} + \frac{380a_{n-1}a_{n-2}a_{n-3}^3a_{n-7}}{a_n^6} + \\
& \frac{380a_{n-1}a_{n-3}^3a_{n-4}a_{n-5}}{a_n^6} + \frac{380a_{n-2}^3a_{n-3}a_{n-4}a_{n-6}}{a_n^6} - \frac{570a_{n-1}^4a_{n-2}a_{n-3}a_{n-10}}{a_n^7} - \\
& \frac{570a_{n-1}^4a_{n-2}a_{n-4}a_{n-9}}{a_n^7} - \frac{570a_{n-1}^4a_{n-2}a_{n-5}a_{n-8}}{a_n^7} - \frac{570a_{n-1}^4a_{n-2}a_{n-6}a_{n-7}}{a_n^7} - \\
& \frac{570a_{n-1}^4a_{n-3}a_{n-4}a_{n-8}}{a_n^7} - \frac{570a_{n-1}^4a_{n-3}a_{n-5}a_{n-7}}{a_n^7} - \frac{570a_{n-1}^4a_{n-4}a_{n-5}a_{n-6}}{a_n^7} - \\
& \frac{570a_{n-1}a_{n-2}^4a_{n-3}a_{n-7}}{a_n^7} - \frac{570a_{n-1}a_{n-2}^4a_{n-4}a_{n-6}}{a_n^7} - \frac{570a_{n-1}a_{n-2}a_{n-3}^4a_{n-4}}{a_n^7} + \\
& \frac{798a_{n-1}^5a_{n-2}a_{n-3}a_{n-9}}{a_n^8} + \frac{798a_{n-1}^5a_{n-2}a_{n-4}a_{n-8}}{a_n^8} + \frac{798a_{n-1}^5a_{n-2}a_{n-5}a_{n-7}}{a_n^8} + \\
& \frac{798a_{n-1}^5a_{n-3}a_{n-4}a_{n-7}}{a_n^8} + \frac{798a_{n-1}^5a_{n-3}a_{n-5}a_{n-6}}{a_n^8} + \frac{798a_{n-1}a_{n-2}^5a_{n-3}a_{n-5}}{a_n^8} - \\
& \frac{1064a_{n-1}^6a_{n-2}a_{n-3}a_{n-8}}{a_n^9} - \frac{1064a_{n-1}^6a_{n-2}a_{n-4}a_{n-7}}{a_n^9} - \frac{1064a_{n-1}^6a_{n-2}a_{n-5}a_{n-6}}{a_n^9} - \\
& \frac{1064a_{n-1}^6a_{n-3}a_{n-4}a_{n-6}}{a_n^9} + \frac{1368a_{n-1}^7a_{n-2}a_{n-3}a_{n-7}}{a_n^{10}} + \frac{1368a_{n-1}^7a_{n-2}a_{n-4}a_{n-6}}{a_n^{10}} + \\
& \frac{1368a_{n-1}^7a_{n-3}a_{n-4}a_{n-5}}{a_n^{10}} - \frac{1710a_{n-1}^8a_{n-2}a_{n-3}a_{n-6}}{a_n^{11}} - \frac{1710a_{n-1}^8a_{n-2}a_{n-4}a_{n-5}}{a_n^{11}} + \\
& \frac{2090a_{n-1}^9a_{n-2}a_{n-3}a_{n-5}}{a_n^{12}} - \frac{2508a_{n-1}^{10}a_{n-2}a_{n-3}a_{n-4}}{a_n^{13}} + \frac{570a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-10}}{a_n^6} + \\
& \frac{570a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-9}}{a_n^6} + \frac{570a_{n-1}^2a_{n-2}^2a_{n-5}a_{n-8}}{a_n^6} + \frac{570a_{n-1}^2a_{n-2}^2a_{n-6}a_{n-7}}{a_n^6} + \\
& \frac{570a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-9}}{a_n^6} + \frac{570a_{n-1}^2a_{n-3}^2a_{n-4}a_{n-7}}{a_n^6} + \frac{570a_{n-1}^2a_{n-3}^2a_{n-5}a_{n-6}}{a_n^6} + \\
& \frac{570a_{n-1}^2a_{n-2}a_{n-4}^2a_{n-7}}{a_n^6} + \frac{570a_{n-1}^2a_{n-3}a_{n-4}^2a_{n-6}}{a_n^6} + \frac{570a_{n-1}^2a_{n-3}a_{n-4}a_{n-5}^2}{a_n^6} + \\
& \frac{570a_{n-1}^2a_{n-2}a_{n-3}a_{n-6}^2}{a_n^6} + \frac{570a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-8}}{a_n^6} + \frac{570a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-6}}{a_n^6} + \\
& \frac{570a_{n-1}a_{n-2}^2a_{n-4}a_{n-5}^2}{a_n^6} + \frac{570a_{n-1}a_{n-2}a_{n-3}^2a_{n-5}^2}{a_n^6} + \frac{570a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-4}a_{n-5}}{a_n^6} - \\
& \frac{1140a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-9}}{a_n^7} - \frac{1140a_{n-1}^3a_{n-2}^2a_{n-4}a_{n-8}}{a_n^7} - \frac{1140a_{n-1}^3a_{n-2}^2a_{n-5}a_{n-7}}{a_n^7} - \\
& \frac{1140a_{n-1}^3a_{n-2}a_{n-3}^2a_{n-8}}{a_n^7} - \frac{1140a_{n-1}^3a_{n-2}a_{n-4}a_{n-6}}{a_n^7} - \frac{1140a_{n-1}^3a_{n-2}a_{n-5}a_{n-6}}{a_n^7} - \\
& \frac{1140a_{n-1}^3a_{n-3}a_{n-4}a_{n-5}^2}{a_n^7} - \frac{1140a_{n-1}^3a_{n-2}a_{n-4}a_{n-5}^2}{a_n^7} - \frac{1140a_{n-1}^2a_{n-2}^3a_{n-3}a_{n-8}}{a_n^7}
\end{aligned}$$

$$\begin{aligned}
& \frac{1140a_{n-1}^2a_{n-2}^3a_{n-4}a_{n-7}}{a_n^7} - \frac{1140a_{n-1}^2a_{n-2}^3a_{n-5}a_{n-6}}{a_n^7} - \frac{1140a_{n-1}^2a_{n-2}a_{n-3}^3a_{n-6}}{a_n^7} - \\
& \frac{1140a_{n-1}^2a_{n-2}a_{n-3}a_{n-4}^3}{a_n^7} - \frac{1140a_{n-1}a_{n-2}^3a_{n-3}^2a_{n-6}}{a_n^7} - \frac{1140a_{n-1}a_{n-2}^2a_{n-3}^3a_{n-5}}{a_n^7} + \\
& \frac{1995a_{n-1}^4a_{n-2}^2a_{n-3}a_{n-8}}{a_n^7} + \frac{1995a_{n-1}^4a_{n-2}^2a_{n-4}a_{n-7}}{a_n^8} + \frac{1995a_{n-1}^4a_{n-2}^2a_{n-5}a_{n-6}}{a_n^8} + \\
& \frac{1995a_{n-1}^4a_{n-2}a_{n-3}^2a_{n-7}}{a_n^8} + \frac{1995a_{n-1}^4a_{n-3}^2a_{n-4}a_{n-5}}{a_n^8} + \frac{1995a_{n-1}^4a_{n-2}a_{n-4}^2a_{n-5}}{a_n^8} + \\
& \frac{1995a_{n-1}^4a_{n-2}a_{n-3}a_{n-5}^2}{a_n^8} + \frac{1995a_{n-1}^2a_{n-2}^4a_{n-3}a_{n-6}}{a_n^8} + \frac{1995a_{n-1}^2a_{n-2}^4a_{n-4}a_{n-5}}{a_n^8} + \\
& \frac{1995a_{n-1}a_{n-2}^4a_{n-3}^2a_{n-4}}{a_n^8} - \frac{3192a_{n-1}^5a_{n-2}^2a_{n-3}a_{n-7}}{a_n^9} - \frac{3192a_{n-1}^5a_{n-2}^2a_{n-4}a_{n-6}}{a_n^9} - \\
& \frac{3192a_{n-1}^5a_{n-2}a_{n-3}^2a_{n-6}}{a_n^9} - \frac{3192a_{n-1}^2a_{n-2}^5a_{n-3}a_{n-4}}{a_n^9} + \frac{4788a_{n-1}^6a_{n-2}^2a_{n-3}a_{n-6}}{a_n^{10}} + \\
& \frac{4788a_{n-1}^6a_{n-2}a_{n-4}a_{n-5}}{a_n^{10}} + \frac{4788a_{n-1}^6a_{n-2}a_{n-5}^2}{a_n^{10}} + \frac{4788a_{n-1}^6a_{n-2}a_{n-3}a_{n-4}^2}{a_n^{10}} - \\
& \frac{6840a_{n-1}^7a_{n-2}^2a_{n-3}a_{n-5}}{a_n^{11}} - \frac{6840a_{n-1}^7a_{n-2}a_{n-3}^2a_{n-4}}{a_n^{11}} + \frac{9405a_{n-1}^8a_{n-2}^2a_{n-3}a_{n-4}}{a_n^{12}} + \\
& \frac{2660a_{n-1}^3a_{n-2}^3a_{n-3}a_{n-7}}{a_n^8} + \frac{2660a_{n-1}^3a_{n-2}^3a_{n-4}a_{n-6}}{a_n^8} + \frac{2660a_{n-1}^3a_{n-2}a_{n-3}^3a_{n-5}}{a_n^8} - \\
& \frac{5320a_{n-1}^4a_{n-2}^3a_{n-3}a_{n-6}}{a_n^9} - \frac{5320a_{n-1}^4a_{n-2}^3a_{n-4}a_{n-5}}{a_n^9} - \frac{5320a_{n-1}^4a_{n-2}a_{n-3}^3a_{n-4}}{a_n^9} - \\
& \frac{5320a_{n-1}^3a_{n-2}^4a_{n-3}a_{n-5}}{a_n^9} + \frac{9576a_{n-1}^5a_{n-2}^3a_{n-3}a_{n-5}}{a_n^{10}} - \frac{15960a_{n-1}^6a_{n-2}^3a_{n-3}a_{n-4}}{a_n^{11}} + \\
& \frac{11970a_{n-1}^4a_{n-2}^4a_{n-3}a_{n-4}}{a_n^{10}} - \frac{1710a_{n-1}^2a_{n-2}^2a_{n-3}^2a_{n-7}}{a_n^7} - \frac{1710a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-5}}{a_n^7} - \\
& \frac{1710a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-5}^2}{a_n^7} - \frac{1710a_{n-1}a_{n-2}^2a_{n-3}^2a_{n-4}^2}{a_n^8} + \frac{3990a_{n-1}^3a_{n-2}^2a_{n-3}^2a_{n-6}}{a_n^8} + \\
& \frac{3990a_{n-1}^3a_{n-2}a_{n-3}^2a_{n-4}^2}{a_n^8} + \frac{3990a_{n-1}^2a_{n-2}^3a_{n-3}^2a_{n-5}}{a_n^8} + \frac{3990a_{n-1}^2a_{n-2}^3a_{n-3}a_{n-4}^2}{a_n^8} + \\
& \frac{3990a_{n-1}^2a_{n-2}^2a_{n-3}^3a_{n-4}}{a_n^8} - \frac{7980a_{n-1}^4a_{n-2}^2a_{n-3}^2a_{n-5}}{a_n^9} - \frac{7980a_{n-1}^4a_{n-2}^2a_{n-3}a_{n-4}^2}{a_n^9} - \\
& \frac{10640a_{n-1}^3a_{n-2}^3a_{n-3}^2a_{n-4}}{a_n^9} + \frac{14364a_{n-1}^5a_{n-2}^2a_{n-3}^2a_{n-4}}{a_n^{10}} - \frac{456a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-9}}{a_n^5} - \\
& \frac{456a_{n-1}a_{n-2}a_{n-3}a_{n-5}a_{n-8}}{a_n^5} - \frac{456a_{n-1}a_{n-2}a_{n-3}a_{n-6}a_{n-7}}{a_n^5} - \\
& \frac{456a_{n-1}a_{n-2}a_{n-4}a_{n-5}a_{n-7}}{a_n^5} - \frac{456a_{n-1}a_{n-3}a_{n-4}a_{n-5}a_{n-6}}{a_n^5} + \\
& \frac{1140a_{n-1}^2a_{n-2}a_{n-3}a_{n-4}a_{n-8}}{a_n^6} + \frac{1140a_{n-1}^2a_{n-2}a_{n-3}a_{n-5}a_{n-7}}{a_n^6} + \\
& \frac{1140a_{n-1}^2a_{n-2}a_{n-4}a_{n-5}a_{n-6}}{a_n^6} + \frac{1140a_{n-1}a_{n-2}^2a_{n-3}^2a_{n-4}a_{n-7}}{a_n^6} + \\
& \frac{1140a_{n-1}a_{n-2}^2a_{n-3}a_{n-5}a_{n-6}}{a_n^6} + \frac{1140a_{n-1}a_{n-2}a_{n-3}^2a_{n-4}a_{n-6}}{a_n^6} + \\
& \frac{1140a_{n-1}a_{n-2}a_{n-3}a_{n-4}^2a_{n-5}}{a_n^6} - \frac{2280a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}a_{n-7}}{a_n^7} - \\
& \frac{2280a_{n-1}^3a_{n-2}a_{n-3}a_{n-5}a_{n-6}}{a_n^7} - \frac{2280a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}a_{n-5}}{a_n^7} +
\end{aligned}$$

$$\begin{aligned}
& \frac{3990a_{n-1}^4a_{n-2}a_{n-3}a_{n-4}a_{n-6}}{a_n^8} - \frac{6384a_{n-1}^5a_{n-2}a_{n-3}a_{n-4}a_{n-5}}{a_n^9} - \\
& \frac{3420a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-4}a_{n-6}}{a_n^7} - \frac{3420a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-4}a_{n-5}}{a_n^7} + \\
& \frac{7980a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-4}a_{n-5}}{a_n^8} \\
& \sum_{k=1}^n Z_k^{20} = -\frac{20a_{n-20}}{a_n} + \frac{10a_{n-10}^2}{a_n^2} + \frac{5a_{n-5}^4}{a_n^4} - \frac{4a_{n-4}^5}{a_n^5} + \frac{2a_{n-2}^{10}}{a_n^{10}} + \frac{a_{n-1}^{20}}{a_n^{20}} + \\
& \frac{20a_{n-1}a_{n-19}}{a_n^2} + \frac{20a_{n-2}a_{n-18}}{a_n^2} + \frac{20a_{n-3}a_{n-17}}{a_n^2} + \frac{20a_{n-4}a_{n-16}}{a_n^2} + \frac{20a_{n-5}a_{n-15}}{a_n^2} + \\
& \frac{20a_{n-6}a_{n-14}}{a_n^2} + \frac{20a_{n-7}a_{n-13}}{a_n^2} + \frac{20a_{n-8}a_{n-12}}{a_n^2} + \frac{20a_{n-9}a_{n-11}}{a_n^2} - \frac{20a_{n-1}^2a_{n-18}}{a_n^3} - \\
& \frac{20a_{n-4}a_{n-8}^2}{a_n^3} - \frac{20a_{n-2}^2a_{n-16}}{a_n^3} - \frac{20a_{n-3}^2a_{n-14}}{a_n^3} - \frac{20a_{n-4}^2a_{n-12}}{a_n^3} - \frac{20a_{n-5}^2a_{n-10}}{a_n^3} - \\
& \frac{20a_{n-6}^2a_{n-8}}{a_n^3} - \frac{20a_{n-6}a_{n-7}^2}{a_n^3} - \frac{20a_{n-2}a_{n-9}^2}{a_n^3} + \frac{20a_{n-1}^3a_{n-17}}{a_n^4} + \frac{20a_{n-2}^3a_{n-14}}{a_n^4} + \\
& \frac{20a_{n-3}^3a_{n-11}}{a_n^4} + \frac{20a_{n-4}^3a_{n-8}}{a_n^4} + \frac{20a_{n-2}a_{n-6}^3}{a_n^4} - \frac{20a_{n-1}^4a_{n-16}}{a_n^5} - \frac{20a_{n-2}^4a_{n-12}}{a_n^5} - \\
& \frac{20a_{n-3}^4a_{n-8}}{a_n^5} + \frac{20a_{n-1}^5a_{n-15}}{a_n^6} + \frac{20a_{n-2}^5a_{n-10}}{a_n^6} + \frac{20a_{n-3}^5a_{n-5}}{a_n^6} - \frac{20a_{n-1}^6a_{n-14}}{a_n^7} - \\
& \frac{20a_{n-2}^6a_{n-8}}{a_n^7} - \frac{20a_{n-2}a_{n-3}^6}{a_n^7} + \frac{20a_{n-1}^7a_{n-13}}{a_n^8} + \frac{20a_{n-2}^7a_{n-6}}{a_n^8} - \frac{20a_{n-1}^8a_{n-12}}{a_n^9} - \\
& \frac{20a_{n-2}^8a_{n-4}}{a_n^9} + \frac{20a_{n-1}^9a_{n-11}}{a_n^{10}} - \frac{20a_{n-1}^{10}a_{n-10}}{a_n^{11}} + \frac{20a_{n-1}^{11}a_{n-9}}{a_n^{12}} - \frac{20a_{n-1}^{12}a_{n-8}}{a_n^{13}} + \\
& \frac{20a_{n-1}^{13}a_{n-7}}{a_n^{14}} - \frac{20a_{n-1}^{14}a_{n-6}}{a_n^{15}} + \frac{20a_{n-1}^{15}a_{n-5}}{a_n^{16}} - \frac{20a_{n-1}^{16}a_{n-4}}{a_n^{17}} + \frac{20a_{n-1}^{17}a_{n-3}}{a_n^{18}} - \\
& \frac{20a_{n-1}^{18}a_{n-2}}{a_n^{19}} + \frac{30a_{n-1}^2a_{n-9}^2}{a_n^4} + \frac{30a_{n-2}^2a_{n-8}^2}{a_n^4} + \frac{30a_{n-3}^2a_{n-7}^2}{a_n^4} + \frac{30a_{n-4}^2a_{n-6}^2}{a_n^4} - \\
& \frac{40a_{n-1}^2a_{n-6}^3}{a_n^5} - \frac{40a_{n-2}^3a_{n-7}^2}{a_n^5} + \frac{50a_{n-1}^4a_{n-8}^2}{a_n^6} + \frac{50a_{n-2}^4a_{n-6}^2}{a_n^6} + \frac{50a_{n-3}^4a_{n-4}^2}{a_n^6} + \\
& \frac{50a_{n-2}^2a_{n-4}^4}{a_n^6} - \frac{60a_{n-2}^5a_{n-5}^2}{a_n^7} + \frac{70a_{n-1}^6a_{n-7}^2}{a_n^8} + \frac{70a_{n-1}^2a_{n-3}^6}{a_n^8} + \frac{70a_{n-2}^6a_{n-4}^2}{a_n^8} - \\
& \frac{80a_{n-2}^7a_{n-3}^2}{a_n^9} + \frac{90a_{n-1}^8a_{n-6}^2}{a_n^{10}} - \frac{100a_{n-1}^2a_{n-2}^9}{a_n^{11}} + \frac{110a_{n-1}^{10}a_{n-5}^2}{a_n^{12}} + \frac{130a_{n-1}^{12}a_{n-4}^2}{a_n^{14}} + \\
& \frac{150a_{n-1}^{14}a_{n-3}^2}{a_n^{16}} + \frac{170a_{n-1}^{16}a_{n-2}^2}{a_n^{18}} - \frac{100a_{n-2}^4a_{n-4}^3}{a_n^7} + \frac{140a_{n-1}^5a_{n-5}^3}{a_n^8} - \frac{300a_{n-1}^8a_{n-4}^3}{a_n^{11}} + \\
& \frac{520a_{n-1}^{11}a_{n-3}^3}{a_n^{14}} - \frac{800a_{n-1}^{14}a_{n-2}^3}{a_n^{17}} + \frac{175a_{n-1}^4a_{n-4}^4}{a_n^8} + \frac{175a_{n-2}^4a_{n-3}^4}{a_n^8} + \frac{825a_{n-1}^8a_{n-3}^4}{a_n^{12}} + \\
& \frac{825a_{n-1}^4a_{n-2}^8}{a_n^{12}} + \frac{2275a_{n-1}^{12}a_{n-2}^4}{a_n^{16}} + \frac{504a_{n-1}^5a_{n-3}^5}{a_n^{10}} - \frac{4004a_{n-1}^{10}a_{n-2}^5}{a_n^{15}} - \frac{2640a_{n-1}^6a_{n-2}^7}{a_n^{13}} + \\
& \frac{4290a_{n-1}^8a_{n-2}^6}{a_n^{14}} - \frac{40a_{n-1}a_{n-2}a_{n-17}}{a_n^3} - \frac{40a_{n-1}a_{n-3}a_{n-16}}{a_n^3} - \frac{40a_{n-1}a_{n-4}a_{n-15}}{a_n^3} - \\
& \frac{40a_{n-1}a_{n-5}a_{n-14}}{a_n^3} - \frac{40a_{n-1}a_{n-6}a_{n-13}}{a_n^3} - \frac{40a_{n-1}a_{n-7}a_{n-12}}{a_n^3} - \frac{40a_{n-1}a_{n-8}a_{n-11}}{a_n^3} - \\
& \frac{40a_{n-1}a_{n-9}a_{n-10}}{a_n^3} - \frac{40a_{n-2}a_{n-3}a_{n-15}}{a_n^3} - \frac{40a_{n-2}a_{n-4}a_{n-14}}{a_n^3} - \frac{40a_{n-2}a_{n-5}a_{n-13}}{a_n^3} - \\
& \frac{40a_{n-2}a_{n-6}a_{n-12}}{a_n^3} - \frac{40a_{n-2}a_{n-7}a_{n-11}}{a_n^3} - \frac{40a_{n-2}a_{n-8}a_{n-10}}{a_n^3} - \frac{40a_{n-3}a_{n-4}a_{n-13}}{a_n^3}
\end{aligned}$$

$$\begin{aligned}
& \frac{40a_{n-3}a_{n-5}a_{n-12}}{a_n^3} - \frac{40a_{n-3}a_{n-6}a_{n-11}}{a_n^3} - \frac{40a_{n-3}a_{n-7}a_{n-10}}{a_n^3} - \frac{40a_{n-3}a_{n-8}a_{n-9}}{a_n^3} - \\
& \frac{40a_{n-4}a_{n-5}a_{n-11}}{a_n^3} - \frac{40a_{n-4}a_{n-6}a_{n-10}}{a_n^3} - \frac{40a_{n-4}a_{n-7}a_{n-9}}{a_n^3} - \frac{40a_{n-5}a_{n-6}a_{n-9}}{a_n^3} - \\
& \frac{40a_{n-5}a_{n-7}a_{n-8}}{a_n^3} + \frac{60a_{n-1}^2a_{n-2}a_{n-16}}{a_n^4} + \frac{60a_{n-1}^2a_{n-3}a_{n-15}}{a_n^4} + \frac{60a_{n-1}^2a_{n-4}a_{n-14}}{a_n^4} + \\
& \frac{60a_{n-1}^2a_{n-5}a_{n-13}}{a_n^4} + \frac{60a_{n-1}^2a_{n-6}a_{n-12}}{a_n^4} + \frac{60a_{n-1}^2a_{n-7}a_{n-11}}{a_n^4} + \frac{60a_{n-1}^2a_{n-8}a_{n-10}}{a_n^4} + \\
& \frac{60a_{n-1}a_{n-3}a_{n-8}^2}{a_n^4} + \frac{60a_{n-1}a_{n-2}^2a_{n-15}}{a_n^4} + \frac{60a_{n-1}a_{n-3}^2a_{n-13}}{a_n^4} + \frac{60a_{n-1}a_{n-4}^2a_{n-11}}{a_n^4} + \\
& \frac{60a_{n-1}a_{n-5}^2a_{n-9}}{a_n^4} + \frac{60a_{n-1}a_{n-6}^2a_{n-7}}{a_n^4} + \frac{60a_{n-1}a_{n-5}a_{n-7}^2}{a_n^4} + \frac{60a_{n-2}a_{n-3}a_{n-13}}{a_n^4} + \\
& \frac{60a_{n-2}a_{n-4}a_{n-12}}{a_n^4} + \frac{60a_{n-2}a_{n-5}a_{n-11}}{a_n^4} + \frac{60a_{n-2}a_{n-6}a_{n-10}}{a_n^4} + \frac{60a_{n-2}a_{n-7}a_{n-9}}{a_n^4} + \\
& \frac{60a_{n-2}a_{n-3}^2a_{n-12}}{a_n^4} + \frac{60a_{n-3}a_{n-4}a_{n-10}}{a_n^4} + \frac{60a_{n-3}a_{n-5}a_{n-9}}{a_n^4} + \frac{60a_{n-3}a_{n-6}a_{n-8}}{a_n^4} + \\
& \frac{60a_{n-2}a_{n-4}^2a_{n-10}}{a_n^4} + \frac{60a_{n-3}a_{n-4}^2a_{n-9}}{a_n^4} + \frac{60a_{n-4}a_{n-5}a_{n-7}}{a_n^4} + \frac{60a_{n-2}a_{n-5}^2a_{n-8}}{a_n^4} + \\
& \frac{60a_{n-3}a_{n-5}^2a_{n-7}}{a_n^4} + \frac{60a_{n-4}a_{n-5}^2a_{n-6}}{a_n^4} + \frac{60a_{n-3}a_{n-5}a_{n-6}^2}{a_n^4} + \frac{60a_{n-2}a_{n-4}a_{n-7}^2}{a_n^4} - \\
& \frac{80a_{n-1}^3a_{n-2}a_{n-15}}{a_n^5} - \frac{80a_{n-1}^3a_{n-3}a_{n-14}}{a_n^5} - \frac{80a_{n-1}^3a_{n-4}a_{n-13}}{a_n^5} - \frac{80a_{n-1}^3a_{n-5}a_{n-12}}{a_n^5} - \\
& \frac{80a_{n-1}^3a_{n-6}a_{n-11}}{a_n^5} - \frac{80a_{n-1}^3a_{n-7}a_{n-10}}{a_n^5} - \frac{80a_{n-1}^3a_{n-8}a_{n-9}}{a_n^5} - \frac{80a_{n-1}a_{n-2}^3a_{n-13}}{a_n^5} - \\
& \frac{80a_{n-1}a_{n-3}^3a_{n-10}}{a_n^5} - \frac{80a_{n-1}a_{n-4}^3a_{n-7}}{a_n^5} - \frac{80a_{n-1}a_{n-4}a_{n-5}^3}{a_n^5} - \frac{80a_{n-2}a_{n-3}^3a_{n-11}}{a_n^5} - \\
& \frac{80a_{n-2}a_{n-4}^3a_{n-10}}{a_n^5} - \frac{80a_{n-2}a_{n-5}^3a_{n-9}}{a_n^5} - \frac{80a_{n-2}a_{n-6}a_{n-8}^3}{a_n^5} - \frac{80a_{n-2}a_{n-3}^3a_{n-9}}{a_n^5} - \\
& \frac{80a_{n-3}a_{n-4}a_{n-7}}{a_n^5} - \frac{80a_{n-3}a_{n-5}a_{n-6}}{a_n^5} - \frac{80a_{n-2}a_{n-4}^3a_{n-6}}{a_n^5} - \frac{80a_{n-3}a_{n-4}^3a_{n-5}}{a_n^5} - \\
& \frac{80a_{n-2}a_{n-3}a_{n-5}^3}{a_n^5} + \frac{100a_{n-1}^4a_{n-2}a_{n-14}}{a_n^6} + \frac{100a_{n-1}^4a_{n-3}a_{n-13}}{a_n^6} + \frac{100a_{n-1}^4a_{n-4}a_{n-12}}{a_n^6} + \\
& \frac{100a_{n-1}^4a_{n-5}a_{n-11}}{a_n^6} + \frac{100a_{n-1}^4a_{n-6}a_{n-10}}{a_n^6} + \frac{100a_{n-1}^4a_{n-7}a_{n-9}}{a_n^6} + \frac{100a_{n-1}a_{n-3}^4a_{n-7}}{a_n^6} + \\
& \frac{100a_{n-1}a_{n-3}a_{n-4}^4}{a_n^6} + \frac{100a_{n-1}a_{n-2}^4a_{n-11}}{a_n^6} + \frac{100a_{n-2}^4a_{n-3}a_{n-9}}{a_n^6} + \frac{100a_{n-2}^4a_{n-4}a_{n-8}}{a_n^6} + \\
& \frac{100a_{n-2}a_{n-5}a_{n-7}}{a_n^6} + \frac{100a_{n-2}a_{n-3}^4a_{n-6}}{a_n^6} - \frac{120a_{n-1}^5a_{n-2}a_{n-13}}{a_n^7} - \frac{120a_{n-1}^5a_{n-3}a_{n-12}}{a_n^7} - \\
& \frac{120a_{n-1}^5a_{n-4}a_{n-11}}{a_n^7} - \frac{120a_{n-1}^5a_{n-5}a_{n-10}}{a_n^7} - \frac{120a_{n-1}^5a_{n-6}a_{n-9}}{a_n^7} - \frac{120a_{n-1}^5a_{n-7}a_{n-8}}{a_n^7} - \\
& \frac{120a_{n-1}a_{n-2}^5a_{n-9}}{a_n^7} - \frac{120a_{n-1}a_{n-3}^5a_{n-4}}{a_n^7} - \frac{120a_{n-2}^5a_{n-3}a_{n-7}}{a_n^7} - \frac{120a_{n-2}^5a_{n-4}a_{n-6}}{a_n^7} + \\
& \frac{140a_{n-1}^6a_{n-2}a_{n-12}}{a_n^8} + \frac{140a_{n-1}^6a_{n-3}a_{n-11}}{a_n^8} + \frac{140a_{n-1}^6a_{n-4}a_{n-10}}{a_n^8} + \frac{140a_{n-1}^6a_{n-5}a_{n-9}}{a_n^8} + \\
& \frac{140a_{n-1}^6a_{n-6}a_{n-8}}{a_n^8} + \frac{140a_{n-1}a_{n-2}^6a_{n-7}}{a_n^8} + \frac{140a_{n-2}^6a_{n-3}a_{n-5}}{a_n^8} - \frac{160a_{n-1}^7a_{n-2}a_{n-11}}{a_n^9} - \\
& \frac{160a_{n-1}^7a_{n-3}a_{n-10}}{a_n^9} - \frac{160a_{n-1}^7a_{n-4}a_{n-9}}{a_n^9} - \frac{160a_{n-1}^7a_{n-5}a_{n-8}}{a_n^9} - \frac{160a_{n-1}^7a_{n-6}a_{n-7}}{a_n^9}
\end{aligned}$$

$$\begin{aligned}
& \frac{160a_{n-1}a_{n-2}^7a_{n-5}}{a_n^9} + \frac{180a_{n-1}^8a_{n-2}a_{n-10}}{a_n^{10}} + \frac{180a_{n-1}^8a_{n-3}a_{n-9}}{a_n^{10}} + \frac{180a_{n-1}^8a_{n-4}a_{n-8}}{a_n^{10}} + \\
& \frac{180a_{n-1}^8a_{n-5}a_{n-7}}{a_n^{10}} + \frac{180a_{n-1}a_{n-2}^8a_{n-3}}{a_n^{10}} - \frac{200a_{n-1}^9a_{n-2}a_{n-9}}{a_n^{11}} - \frac{200a_{n-1}^9a_{n-3}a_{n-8}}{a_n^{11}} - \\
& \frac{200a_{n-1}^9a_{n-4}a_{n-7}}{a_n^{11}} - \frac{200a_{n-1}^9a_{n-5}a_{n-6}}{a_n^{11}} + \frac{220a_{n-1}^{10}a_{n-2}a_{n-8}}{a_n^{12}} + \frac{220a_{n-1}^{10}a_{n-3}a_{n-7}}{a_n^{12}} + \\
& \frac{220a_{n-1}^{10}a_{n-4}a_{n-6}}{a_n^{12}} - \frac{240a_{n-1}^{11}a_{n-2}a_{n-7}}{a_n^{13}} - \frac{240a_{n-1}^{11}a_{n-3}a_{n-6}}{a_n^{13}} - \frac{240a_{n-1}^{11}a_{n-4}a_{n-5}}{a_n^{13}} + \\
& \frac{260a_{n-1}^{12}a_{n-2}a_{n-6}}{a_n^{14}} + \frac{260a_{n-1}^{12}a_{n-3}a_{n-5}}{a_n^{14}} - \frac{280a_{n-1}^{13}a_{n-2}a_{n-5}}{a_n^{15}} - \frac{280a_{n-1}^{13}a_{n-3}a_{n-4}}{a_n^{15}} + \\
& \frac{300a_{n-1}^{14}a_{n-2}a_{n-4}}{a_n^{16}} - \frac{320a_{n-1}^{15}a_{n-2}a_{n-3}}{a_n^{17}} - \frac{120a_{n-1}^2a_{n-2}a_{n-8}^2}{a_n^5} - \frac{120a_{n-1}^2a_{n-2}^2a_{n-14}}{a_n^5} - \\
& \frac{120a_{n-1}^2a_{n-3}^2a_{n-12}}{a_n^5} - \frac{120a_{n-1}^2a_{n-4}^2a_{n-10}}{a_n^5} - \frac{120a_{n-1}^2a_{n-5}^2a_{n-8}}{a_n^5} - \frac{120a_{n-1}^2a_{n-4}a_{n-7}^2}{a_n^5} - \\
& \frac{120a_{n-2}^2a_{n-3}^2a_{n-10}}{a_n^5} - \frac{120a_{n-2}^2a_{n-4}^2a_{n-8}}{a_n^5} - \frac{120a_{n-2}^2a_{n-5}^2a_{n-6}}{a_n^5} - \frac{120a_{n-2}^2a_{n-4}a_{n-6}^2}{a_n^5} - \\
& \frac{120a_{n-3}^2a_{n-4}^2a_{n-6}}{a_n^5} - \frac{120a_{n-3}^2a_{n-4}a_{n-5}^2}{a_n^5} - \frac{120a_{n-2}a_{n-3}^2a_{n-6}^2}{a_n^5} - \frac{120a_{n-2}a_{n-4}^2a_{n-5}^2}{a_n^5} + \\
& \frac{200a_{n-1}^3a_{n-5}a_{n-6}^2}{a_n^6} + \frac{200a_{n-1}^3a_{n-2}^2a_{n-13}}{a_n^6} + \frac{200a_{n-1}^3a_{n-3}^2a_{n-11}}{a_n^6} + \frac{200a_{n-1}^3a_{n-4}^2a_{n-9}}{a_n^6} + \\
& \frac{200a_{n-1}^3a_{n-5}^2a_{n-7}}{a_n^6} + \frac{200a_{n-1}^3a_{n-3}a_{n-7}^2}{a_n^6} + \frac{200a_{n-1}^2a_{n-3}^2a_{n-12}}{a_n^6} + \frac{200a_{n-1}^2a_{n-3}^3a_{n-9}}{a_n^6} + \\
& \frac{200a_{n-1}^2a_{n-4}^3a_{n-6}}{a_n^6} + \frac{200a_{n-1}^2a_{n-3}a_{n-5}^3}{a_n^6} + \frac{200a_{n-1}a_{n-3}^3a_{n-5}^2}{a_n^6} + \frac{200a_{n-1}a_{n-2}^2a_{n-5}^3}{a_n^6} + \\
& \frac{200a_{n-2}^3a_{n-3}^2a_{n-8}}{a_n^6} + \frac{200a_{n-2}^3a_{n-4}^2a_{n-6}}{a_n^6} + \frac{200a_{n-2}^3a_{n-4}a_{n-5}^2}{a_n^6} + \frac{200a_{n-2}^2a_{n-3}^3a_{n-7}}{a_n^6} + \\
& \frac{200a_{n-2}a_{n-3}^2a_{n-4}^3}{a_n^6} - \frac{300a_{n-1}^4a_{n-4}a_{n-6}^2}{a_n^7} - \frac{300a_{n-1}^4a_{n-2}^2a_{n-12}}{a_n^7} - \frac{300a_{n-1}^4a_{n-3}^2a_{n-10}}{a_n^7} - \\
& \frac{300a_{n-1}^4a_{n-4}a_{n-8}}{a_n^7} - \frac{300a_{n-1}^4a_{n-5}a_{n-6}}{a_n^7} - \frac{300a_{n-1}^4a_{n-2}a_{n-7}^2}{a_n^7} - \frac{300a_{n-1}^2a_{n-2}a_{n-4}^4}{a_n^7} - \\
& \frac{300a_{n-1}^2a_{n-2}^4a_{n-10}}{a_n^7} - \frac{300a_{n-1}^2a_{n-3}^4a_{n-6}}{a_n^7} - \frac{300a_{n-2}^4a_{n-3}^2a_{n-6}}{a_n^7} - \frac{300a_{n-2}^2a_{n-3}^4a_{n-4}}{a_n^7} + \\
& \frac{420a_{n-1}^5a_{n-3}a_{n-6}^2}{a_n^8} + \frac{420a_{n-1}^5a_{n-2}^2a_{n-11}}{a_n^8} + \frac{420a_{n-1}^5a_{n-3}^2a_{n-9}}{a_n^8} + \frac{420a_{n-1}^5a_{n-4}^2a_{n-7}}{a_n^8} + \\
& \frac{420a_{n-1}^2a_{n-2}^5a_{n-8}}{a_n^8} + \frac{420a_{n-1}a_{n-2}^2a_{n-5}^3}{a_n^8} + \frac{420a_{n-2}^5a_{n-3}^2a_{n-4}}{a_n^8} - \frac{560a_{n-1}^6a_{n-2}^2a_{n-10}}{a_n^9} - \\
& \frac{560a_{n-1}^6a_{n-3}^2a_{n-8}}{a_n^9} - \frac{560a_{n-1}^6a_{n-4}a_{n-6}}{a_n^9} - \frac{560a_{n-1}^6a_{n-2}a_{n-6}^2}{a_n^9} - \\
& \frac{560a_{n-1}^2a_{n-2}^6a_{n-6}}{a_n^9} + \frac{720a_{n-1}^7a_{n-2}^2a_{n-9}}{a_n^{10}} + \frac{720a_{n-1}^7a_{n-3}^2a_{n-7}}{a_n^{10}} + \frac{720a_{n-1}^7a_{n-4}^2a_{n-5}}{a_n^{10}} + \\
& \frac{720a_{n-1}^7a_{n-3}a_{n-5}^2}{a_n^{10}} + \frac{720a_{n-1}^2a_{n-2}^7a_{n-4}}{a_n^{10}} - \frac{900a_{n-1}^8a_{n-2}^2a_{n-8}}{a_n^{11}} - \frac{900a_{n-1}^8a_{n-3}^2a_{n-6}}{a_n^{11}} - \\
& \frac{900a_{n-1}^8a_{n-2}a_{n-5}^2}{a_n^{11}} + \frac{1100a_{n-1}^9a_{n-2}^2a_{n-7}}{a_n^{12}} + \frac{1100a_{n-1}^9a_{n-3}^2a_{n-5}}{a_n^{12}} + \frac{1100a_{n-1}^9a_{n-4}a_{n-4}^2}{a_n^{12}} - \\
& \frac{1320a_{n-1}^{10}a_{n-2}^2a_{n-6}}{a_n^{13}} - \frac{1320a_{n-1}^{10}a_{n-3}^2a_{n-4}}{a_n^{13}} - \frac{1320a_{n-1}^{10}a_{n-2}a_{n-4}^2}{a_n^{13}} + \frac{1560a_{n-1}^{11}a_{n-2}^2a_{n-5}}{a_n^{14}} - \\
& \frac{1820a_{n-1}^{12}a_{n-2}^2a_{n-4}}{a_n^{15}} - \frac{1820a_{n-1}^{12}a_{n-2}a_{n-3}^2}{a_n^{15}} + \frac{2100a_{n-1}^{13}a_{n-2}^2a_{n-3}}{a_n^{16}} - \frac{400a_{n-1}^3a_{n-2}^3a_{n-11}}{a_n^7} -
\end{aligned}$$

$$\begin{aligned}
& \frac{400a_{n-1}^3a_{n-3}^3a_{n-8}}{a_n^7} - \frac{400a_{n-1}^3a_{n-4}^3a_{n-5}}{a_n^7} - \frac{400a_{n-1}^3a_{n-2}a_{n-5}^3}{a_n^7} - \frac{400a_{n-2}^3a_{n-3}^3a_{n-5}}{a_n^7} + \\
& \frac{700a_{n-1}^4a_{n-2}^3a_{n-10}}{a_n^8} + \frac{700a_{n-1}^4a_{n-3}^3a_{n-7}}{a_n^8} + \frac{700a_{n-1}^3a_{n-2}^4a_{n-9}}{a_n^8} + \frac{700a_{n-1}^3a_{n-3}^4a_{n-5}}{a_n^8} - \\
& \frac{1120a_{n-1}^5a_{n-3}a_{n-4}^3}{a_n^9} - \frac{1120a_{n-1}^5a_{n-2}a_{n-9}}{a_n^9} - \frac{1120a_{n-1}^5a_{n-3}^3a_{n-6}}{a_n^9} - \frac{1120a_{n-1}^3a_{n-2}a_{n-3}^5}{a_n^9} - \\
& \frac{1120a_{n-1}^3a_{n-2}^5a_{n-7}}{a_n^9} - \frac{1120a_{n-1}a_{n-2}^5a_{n-3}^3}{a_n^9} + \frac{1680a_{n-1}^6a_{n-2}a_{n-4}^3}{a_n^{10}} + \frac{1680a_{n-1}^6a_{n-2}^3a_{n-8}}{a_n^{10}} + \\
& \frac{1680a_{n-1}^6a_{n-3}a_{n-5}}{a_n^{10}} + \frac{1680a_{n-1}^3a_{n-2}^6a_{n-5}}{a_n^{10}} - \frac{2400a_{n-1}^7a_{n-2}a_{n-7}}{a_n^{11}} - \frac{2400a_{n-1}^7a_{n-3}a_{n-4}}{a_n^{11}} - \\
& \frac{2400a_{n-1}^3a_{n-2}^7a_{n-3}}{a_n^{11}} + \frac{3300a_{n-1}^8a_{n-2}^3a_{n-6}}{a_n^{12}} - \frac{4400a_{n-1}^9a_{n-2}^3a_{n-5}}{a_n^{13}} - \frac{4400a_{n-1}^9a_{n-2}a_{n-3}^3}{a_n^{13}} + \\
& \frac{5720a_{n-1}^{10}a_{n-2}^3a_{n-4}}{a_n^{14}} - \frac{7280a_{n-1}^{11}a_{n-2}^3a_{n-3}}{a_n^{15}} - \frac{1400a_{n-1}^4a_{n-2}^4a_{n-8}}{a_n^9} - \frac{1400a_{n-1}^4a_{n-3}a_{n-4}}{a_n^9} + \\
& \frac{2520a_{n-1}^5a_{n-2}^4a_{n-7}}{a_n^{10}} + \frac{2520a_{n-1}^4a_{n-2}^5a_{n-6}}{a_n^{10}} - \frac{4200a_{n-1}^6a_{n-2}a_{n-3}^4}{a_n^{11}} - \frac{4200a_{n-1}^6a_{n-2}^4a_{n-6}}{a_n^{11}} - \\
& \frac{4200a_{n-1}^4a_{n-2}^6a_{n-4}}{a_n^{11}} + \frac{6600a_{n-1}^7a_{n-2}^4a_{n-5}}{a_n^{12}} - \frac{9900a_{n-1}^8a_{n-2}^4a_{n-4}}{a_n^{13}} + \frac{14300a_{n-1}^9a_{n-2}^4a_{n-3}}{a_n^{14}} - \\
& \frac{5040a_{n-1}^5a_{n-2}^5a_{n-5}}{a_n^{11}} + \frac{9240a_{n-1}^6a_{n-2}^5a_{n-4}}{a_n^{12}} + \frac{9240a_{n-1}^5a_{n-2}^6a_{n-3}}{a_n^{12}} - \frac{15840a_{n-1}^7a_{n-2}^5a_{n-3}}{a_n^{13}} + \\
& \frac{300a_{n-1}^2a_{n-2}^2a_{n-7}^2}{a_n^6} + \frac{300a_{n-1}^2a_{n-3}^2a_{n-6}^2}{a_n^6} + \frac{300a_{n-1}^2a_{n-4}^2a_{n-5}^2}{a_n^6} + \frac{300a_{n-2}^2a_{n-3}^2a_{n-5}^2}{a_n^6} - \\
& \frac{600a_{n-1}^2a_{n-2}^3a_{n-6}^2}{a_n^7} - \frac{600a_{n-1}^2a_{n-3}^2a_{n-4}^3}{a_n^7} + \frac{600a_{n-2}^3a_{n-3}^2a_{n-4}^2}{a_n^7} + \frac{1050a_{n-1}^2a_{n-2}^4a_{n-5}^2}{a_n^8} + \\
& \frac{1050a_{n-1}^4a_{n-2}^2a_{n-6}^2}{a_n^8} + \frac{1050a_{n-1}^4a_{n-3}^2a_{n-5}^2}{a_n^8} - \frac{1680a_{n-1}^2a_{n-2}^5a_{n-4}^2}{a_n^9} + \frac{2520a_{n-1}^6a_{n-2}^2a_{n-5}^2}{a_n^{10}} + \\
& \frac{2520a_{n-1}^6a_{n-3}^2a_{n-4}^2}{a_n^{10}} + \frac{2520a_{n-1}^2a_{n-6}^2a_{n-3}^2}{a_n^{10}} + \frac{4950a_{n-1}^8a_{n-2}^2a_{n-4}^2}{a_n^{12}} + \frac{8580a_{n-1}^{10}a_{n-2}^2a_{n-3}^2}{a_n^{14}} + \\
& \frac{1400a_{n-1}^3a_{n-3}^3a_{n-4}^2}{a_n^8} + \frac{1400a_{n-1}^2a_{n-3}^3a_{n-4}^3}{a_n^8} - \frac{2800a_{n-1}^4a_{n-2}^2a_{n-4}^3}{a_n^9} - \frac{2800a_{n-1}^4a_{n-3}^2a_{n-5}^2}{a_n^9} - \\
& \frac{2800a_{n-1}^2a_{n-2}^3a_{n-3}^4}{a_n^9} - \frac{8400a_{n-1}^6a_{n-2}^3a_{n-4}^2}{a_n^{11}} + \frac{13200a_{n-1}^7a_{n-2}^2a_{n-3}^3}{a_n^{12}} - \\
& \frac{19800a_{n-1}^8a_{n-2}^3a_{n-3}^2}{a_n^{13}} + \frac{6300a_{n-1}^4a_{n-2}^4a_{n-4}^2}{a_n^{10}} + \frac{6300a_{n-1}^4a_{n-2}^2a_{n-3}^4}{a_n^{10}} - \\
& \frac{12600a_{n-1}^4a_{n-2}^5a_{n-3}^2}{a_n^{11}} + \frac{23100a_{n-1}^6a_{n-2}^4a_{n-3}^2}{a_n^{12}} + \frac{8400a_{n-1}^3a_{n-2}^4a_{n-3}^3}{a_n^{10}} - \\
& \frac{16800a_{n-1}^5a_{n-2}^3a_{n-3}^3}{a_n^{11}} + \frac{120a_{n-1}a_{n-2}a_{n-3}a_{n-14}}{a_n^4} + \frac{120a_{n-1}a_{n-2}a_{n-4}a_{n-13}}{a_n^4} + \\
& \frac{120a_{n-1}a_{n-2}a_{n-5}a_{n-12}}{a_n^4} + \frac{120a_{n-1}a_{n-2}a_{n-6}a_{n-11}}{a_n^4} + \frac{120a_{n-1}a_{n-2}a_{n-7}a_{n-10}}{a_n^4} + \\
& \frac{120a_{n-1}a_{n-2}a_{n-8}a_{n-9}}{a_n^4} + \frac{120a_{n-1}a_{n-3}a_{n-4}a_{n-12}}{a_n^4} + \frac{120a_{n-1}a_{n-3}a_{n-5}a_{n-11}}{a_n^4} + \\
& \frac{120a_{n-1}a_{n-3}a_{n-6}a_{n-10}}{a_n^4} + \frac{120a_{n-1}a_{n-3}a_{n-7}a_{n-9}}{a_n^4} + \frac{120a_{n-1}a_{n-4}a_{n-5}a_{n-10}}{a_n^4} + \\
& \frac{120a_{n-1}a_{n-4}a_{n-6}a_{n-9}}{a_n^4} + \frac{120a_{n-1}a_{n-4}a_{n-7}a_{n-8}}{a_n^4} + \frac{120a_{n-1}a_{n-5}a_{n-6}a_{n-8}}{a_n^4} + \\
& \frac{120a_{n-2}a_{n-3}a_{n-4}a_{n-11}}{a_n^4} + \frac{120a_{n-2}a_{n-3}a_{n-5}a_{n-10}}{a_n^4} + \frac{120a_{n-2}a_{n-3}a_{n-6}a_{n-9}}{a_n^4} +
\end{aligned}$$

$$\begin{aligned}
& \frac{120a_{n-2}a_{n-3}a_{n-7}a_{n-8}}{a_n^4} + \frac{120a_{n-2}a_{n-4}a_{n-5}a_{n-9}}{a_n^4} + \frac{120a_{n-2}a_{n-4}a_{n-6}a_{n-8}}{a_n^4} + \\
& \frac{120a_{n-2}a_{n-5}a_{n-6}a_{n-7}}{a_n^4} + \frac{120a_{n-3}a_{n-4}a_{n-5}a_{n-8}}{a_n^4} + \frac{120a_{n-3}a_{n-4}a_{n-6}a_{n-7}}{a_n^4} - \\
& \frac{240a_{n-1}^2a_{n-2}a_{n-3}a_{n-13}}{a_n^5} - \frac{240a_{n-1}^2a_{n-2}a_{n-4}a_{n-12}}{a_n^5} - \frac{240a_{n-1}^2a_{n-2}a_{n-5}a_{n-11}}{a_n^5} - \\
& \frac{240a_{n-1}^2a_{n-2}a_{n-6}a_{n-10}}{a_n^5} - \frac{240a_{n-1}^2a_{n-2}a_{n-7}a_{n-9}}{a_n^5} - \frac{240a_{n-1}^2a_{n-3}a_{n-4}a_{n-11}}{a_n^5} - \\
& \frac{240a_{n-1}^2a_{n-3}a_{n-5}a_{n-10}}{a_n^5} - \frac{240a_{n-1}^2a_{n-3}a_{n-6}a_{n-9}}{a_n^5} - \frac{240a_{n-1}^2a_{n-3}a_{n-7}a_{n-8}}{a_n^5} - \\
& \frac{240a_{n-1}^2a_{n-4}a_{n-5}a_{n-9}}{a_n^5} - \frac{240a_{n-1}^2a_{n-4}a_{n-6}a_{n-8}}{a_n^5} - \frac{240a_{n-1}^2a_{n-5}a_{n-6}a_{n-7}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}^2a_{n-3}a_{n-12}}{a_n^5} - \frac{240a_{n-1}a_{n-2}^2a_{n-4}a_{n-11}}{a_n^5} - \frac{240a_{n-1}a_{n-2}^2a_{n-5}a_{n-10}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}^2a_{n-6}a_{n-9}}{a_n^5} - \frac{240a_{n-1}a_{n-2}^2a_{n-7}a_{n-8}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-3}^2a_{n-11}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-9}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-3}a_{n-5}a_{n-8}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-3}a_{n-6}a_{n-7}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}a_{n-4}a_{n-9}}{a_n^5} - \frac{240a_{n-1}a_{n-3}a_{n-4}a_{n-8}}{a_n^5} - \frac{240a_{n-1}a_{n-4}a_{n-5}a_{n-6}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}a_{n-5}a_{n-7}}{a_n^5} - \frac{240a_{n-1}a_{n-3}a_{n-5}a_{n-6}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-5}a_{n-6}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}a_{n-3}a_{n-12}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-4}a_{n-11}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-5}a_{n-10}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}a_{n-6}a_{n-9}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-7}a_{n-8}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-3}^2a_{n-11}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-9}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-3}a_{n-5}a_{n-8}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-3}a_{n-6}a_{n-7}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}a_{n-4}a_{n-9}}{a_n^5} - \frac{240a_{n-1}a_{n-3}a_{n-4}a_{n-8}}{a_n^5} - \frac{240a_{n-1}a_{n-4}a_{n-5}a_{n-6}}{a_n^5} - \\
& \frac{240a_{n-1}a_{n-2}a_{n-5}a_{n-7}}{a_n^5} - \frac{240a_{n-1}a_{n-3}a_{n-5}a_{n-6}}{a_n^5} - \frac{240a_{n-1}a_{n-2}a_{n-5}a_{n-6}}{a_n^5} + \\
& \frac{400a_{n-1}^3a_{n-2}a_{n-3}a_{n-12}}{a_n^6} + \frac{400a_{n-1}^3a_{n-2}a_{n-4}a_{n-11}}{a_n^6} + \frac{400a_{n-1}^3a_{n-2}a_{n-5}a_{n-10}}{a_n^6} + \\
& \frac{400a_{n-1}^3a_{n-2}a_{n-6}a_{n-9}}{a_n^6} + \frac{400a_{n-1}^3a_{n-2}a_{n-7}a_{n-8}}{a_n^6} + \frac{400a_{n-1}^3a_{n-3}a_{n-4}a_{n-10}}{a_n^6} + \\
& \frac{400a_{n-1}^3a_{n-3}a_{n-5}a_{n-9}}{a_n^6} + \frac{400a_{n-1}^3a_{n-3}a_{n-6}a_{n-8}}{a_n^6} + \frac{400a_{n-1}^3a_{n-4}a_{n-5}a_{n-8}}{a_n^6} + \\
& \frac{400a_{n-1}^3a_{n-4}a_{n-6}a_{n-7}}{a_n^6} + \frac{400a_{n-1}a_{n-2}^3a_{n-3}a_{n-10}}{a_n^6} + \frac{400a_{n-1}a_{n-2}^3a_{n-4}a_{n-9}}{a_n^6} + \\
& \frac{400a_{n-1}a_{n-2}^3a_{n-5}a_{n-8}}{a_n^6} + \frac{400a_{n-1}a_{n-2}a_{n-3}^3a_{n-7}}{a_n^6} + \frac{400a_{n-1}a_{n-2}a_{n-3}^3a_{n-8}}{a_n^6} + \\
& \frac{400a_{n-1}a_{n-1}^3a_{n-3}a_{n-4}a_{n-5}}{a_n^6} + \frac{400a_{n-1}a_{n-2}a_{n-3}^3a_{n-5}}{a_n^6} + \frac{400a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}a_{n-7}}{a_n^6} + \\
& \frac{400a_{n-1}^3a_{n-2}a_{n-5}a_{n-6}}{a_n^6} + \frac{400a_{n-1}a_{n-2}a_{n-3}^3a_{n-4}}{a_n^6} - \frac{600a_{n-1}^4a_{n-2}a_{n-3}a_{n-11}}{a_n^7} - \\
& \frac{600a_{n-1}^4a_{n-2}a_{n-4}a_{n-10}}{a_n^7} - \frac{600a_{n-1}^4a_{n-2}a_{n-5}a_{n-9}}{a_n^7} - \frac{600a_{n-1}^4a_{n-2}a_{n-6}a_{n-8}}{a_n^7} - \\
& \frac{600a_{n-1}^4a_{n-3}a_{n-4}a_{n-9}}{a_n^7} - \frac{600a_{n-1}^4a_{n-3}a_{n-5}a_{n-8}}{a_n^7} - \frac{600a_{n-1}^4a_{n-3}a_{n-6}a_{n-7}}{a_n^7} - \\
& \frac{600a_{n-1}^4a_{n-4}a_{n-5}a_{n-7}}{a_n^7} - \frac{600a_{n-1}a_{n-2}^4a_{n-3}a_{n-8}}{a_n^7} - \frac{600a_{n-1}a_{n-2}^4a_{n-4}a_{n-7}}{a_n^7}
\end{aligned}$$

$$\begin{aligned}
& \frac{600a_{n-1}a_{n-2}^4a_{n-5}a_{n-6}}{a_n^7} - \frac{600a_{n-1}a_{n-2}a_{n-3}^4a_{n-5}}{a_n^7} - \frac{600a_{n-2}^4a_{n-3}a_{n-4}a_{n-5}}{a_n^7} + \\
& \frac{840a_{n-1}^5a_{n-2}a_{n-3}a_{n-10}}{a_n^8} + \frac{840a_{n-1}^5a_{n-2}a_{n-4}a_{n-9}}{a_n^8} + \frac{840a_{n-1}^5a_{n-2}a_{n-5}a_{n-8}}{a_n^8} + \\
& \frac{840a_{n-1}^5a_{n-2}a_{n-6}a_{n-7}}{a_n^8} + \frac{840a_{n-1}^5a_{n-3}a_{n-4}a_{n-8}}{a_n^8} + \frac{840a_{n-1}^5a_{n-3}a_{n-5}a_{n-7}}{a_n^8} + \\
& \frac{840a_{n-1}^5a_{n-4}a_{n-5}a_{n-6}}{a_n^8} + \frac{840a_{n-1}a_{n-2}^5a_{n-3}a_{n-6}}{a_n^8} + \frac{840a_{n-1}a_{n-2}^5a_{n-4}a_{n-5}}{a_n^8} - \\
& \frac{1120a_{n-1}^6a_{n-2}a_{n-3}a_{n-9}}{a_n^9} - \frac{1120a_{n-1}^6a_{n-2}a_{n-4}a_{n-8}}{a_n^9} - \frac{1120a_{n-1}^6a_{n-2}a_{n-5}a_{n-7}}{a_n^9} - \\
& \frac{1120a_{n-1}^6a_{n-3}a_{n-4}a_{n-7}}{a_n^9} - \frac{1120a_{n-1}^6a_{n-3}a_{n-5}a_{n-6}}{a_n^9} - \frac{1120a_{n-1}a_{n-2}^6a_{n-3}a_{n-4}}{a_n^9} + \\
& \frac{1440a_{n-1}^7a_{n-2}a_{n-3}a_{n-8}}{a_n^{10}} + \frac{1440a_{n-1}^7a_{n-2}a_{n-4}a_{n-7}}{a_n^{10}} + \frac{1440a_{n-1}^7a_{n-2}a_{n-5}a_{n-6}}{a_n^{10}} + \\
& \frac{1440a_{n-1}^7a_{n-3}a_{n-4}a_{n-6}}{a_n^{10}} - \frac{1800a_{n-1}^8a_{n-2}a_{n-3}a_{n-7}}{a_n^{11}} - \frac{1800a_{n-1}^8a_{n-2}a_{n-4}a_{n-6}}{a_n^{11}} - \\
& \frac{1800a_{n-1}^8a_{n-3}a_{n-4}a_{n-5}}{a_n^{11}} + \frac{2200a_{n-1}^9a_{n-2}a_{n-3}a_{n-6}}{a_n^{12}} + \frac{2200a_{n-1}^9a_{n-2}a_{n-4}a_{n-5}}{a_n^{12}} - \\
& \frac{2640a_{n-1}^{10}a_{n-2}a_{n-3}a_{n-5}}{a_n^{13}} + \frac{3120a_{n-1}^{11}a_{n-2}a_{n-3}a_{n-4}}{a_n^{14}} + \frac{600a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-11}}{a_n^6} + \\
& \frac{600a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-10}}{a_n^6} + \frac{600a_{n-1}^2a_{n-2}^2a_{n-5}a_{n-9}}{a_n^6} + \frac{600a_{n-1}^2a_{n-2}^2a_{n-6}a_{n-8}}{a_n^6} + \\
& \frac{600a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-10}}{a_n^6} + \frac{600a_{n-1}^2a_{n-3}^2a_{n-4}a_{n-8}}{a_n^6} + \frac{600a_{n-1}^2a_{n-3}^2a_{n-5}a_{n-7}}{a_n^6} + \\
& \frac{600a_{n-1}^2a_{n-2}a_{n-4}^2a_{n-8}}{a_n^6} + \frac{600a_{n-1}^2a_{n-3}a_{n-4}^2a_{n-7}}{a_n^6} + \frac{600a_{n-1}^2a_{n-2}a_{n-5}^2a_{n-6}}{a_n^6} + \\
& \frac{600a_{n-1}^2a_{n-2}a_{n-4}a_{n-6}^2}{a_n^6} + \frac{600a_{n-1}^2a_{n-2}^2a_{n-3}^2a_{n-9}}{a_n^6} + \frac{600a_{n-1}^2a_{n-2}^2a_{n-4}^2a_{n-7}}{a_n^6} + \\
& \frac{600a_{n-1}^2a_{n-2}a_{n-3}a_{n-5}^2a_{n-6}}{a_n^6} + \frac{600a_{n-1}^2a_{n-3}^2a_{n-4}^2a_{n-5}}{a_n^6} + \frac{600a_{n-2}^2a_{n-3}^2a_{n-4}a_{n-6}}{a_n^6} + \\
& \frac{600a_{n-2}^2a_{n-3}a_{n-4}^2a_{n-5}}{a_n^6} - \frac{1200a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-10}}{a_n^7} - \frac{1200a_{n-1}^3a_{n-2}^2a_{n-4}a_{n-9}}{a_n^7} - \\
& \frac{1200a_{n-1}^3a_{n-2}^2a_{n-5}a_{n-8}}{a_n^7} - \frac{1200a_{n-1}^3a_{n-2}^2a_{n-6}a_{n-7}}{a_n^7} - \frac{1200a_{n-1}^3a_{n-2}a_{n-3}^2a_{n-9}}{a_n^7} - \\
& \frac{1200a_{n-1}^3a_{n-2}a_{n-4}^2a_{n-7}}{a_n^7} - \frac{1200a_{n-1}^3a_{n-2}a_{n-5}^2a_{n-6}}{a_n^7} - \frac{1200a_{n-1}^3a_{n-2}a_{n-6}^2a_{n-5}}{a_n^7} - \\
& \frac{1200a_{n-1}^3a_{n-2}a_{n-7}^2a_{n-4}}{a_n^7} - \frac{1200a_{n-1}^3a_{n-2}a_{n-8}^2a_{n-3}}{a_n^7} - \frac{1200a_{n-1}^3a_{n-2}a_{n-9}^2a_{n-2}}{a_n^7} - \\
& \frac{1200a_{n-1}^3a_{n-2}a_{n-10}^2a_{n-1}}{a_n^7} + \frac{2100a_{n-1}^4a_{n-2}^2a_{n-3}a_{n-9}}{a_n^8} + \\
& \frac{2100a_{n-1}^4a_{n-2}^2a_{n-4}a_{n-8}}{a_n^8} + \frac{2100a_{n-1}^4a_{n-2}^2a_{n-5}a_{n-7}}{a_n^8} + \frac{2100a_{n-1}^4a_{n-2}a_{n-3}^2a_{n-8}}{a_n^8} +
\end{aligned}$$

$$\begin{aligned}
& \frac{2100a_{n-1}^4a_{n-3}^2a_{n-4}a_{n-6}}{a_n^8} + \frac{2100a_{n-1}^4a_{n-2}a_{n-4}^2a_{n-6}}{a_n^8} + \frac{2100a_{n-1}^4a_{n-3}a_{n-4}^2a_{n-5}}{a_n^8} + \\
& \frac{2100a_{n-1}^4a_{n-2}a_{n-4}a_{n-5}^2}{a_n^8} + \frac{2100a_{n-1}^2a_{n-2}^4a_{n-3}a_{n-7}}{a_n^8} + \frac{2100a_{n-1}^2a_{n-2}^4a_{n-4}a_{n-6}}{a_n^8} + \\
& \frac{2100a_{n-1}^2a_{n-2}a_{n-3}^4a_{n-4}}{a_n^8} + \frac{2100a_{n-1}a_{n-2}^4a_{n-3}^2a_{n-5}}{a_n^8} + \frac{2100a_{n-1}a_{n-2}^4a_{n-3}a_{n-4}^2}{a_n^8} - \\
& \frac{3360a_{n-1}^5a_{n-2}^2a_{n-3}a_{n-8}}{a_n^9} - \frac{3360a_{n-1}^5a_{n-2}^2a_{n-4}a_{n-7}}{a_n^9} - \frac{3360a_{n-1}^5a_{n-2}^2a_{n-5}a_{n-6}}{a_n^9} - \\
& \frac{3360a_{n-1}^5a_{n-2}a_{n-3}^2a_{n-7}}{a_n^9} - \frac{3360a_{n-1}^5a_{n-3}^2a_{n-4}a_{n-5}}{a_n^9} - \frac{3360a_{n-1}^5a_{n-2}a_{n-4}^2a_{n-5}}{a_n^9} - \\
& \frac{3360a_{n-1}^5a_{n-2}a_{n-3}a_{n-5}^2}{a_n^9} - \frac{3360a_{n-1}^2a_{n-2}^5a_{n-3}a_{n-5}}{a_n^9} + \frac{5040a_{n-1}^6a_{n-2}^2a_{n-3}a_{n-7}}{a_n^{10}} + \\
& \frac{5040a_{n-1}^6a_{n-2}a_{n-4}a_{n-6}}{a_n^{10}} + \frac{5040a_{n-1}^6a_{n-2}a_{n-3}^2a_{n-6}}{a_n^{10}} - \frac{7200a_{n-1}^7a_{n-2}^2a_{n-3}a_{n-6}}{a_n^{11}} - \\
& \frac{7200a_{n-1}^7a_{n-2}^2a_{n-4}a_{n-5}}{a_n^{11}} - \frac{7200a_{n-1}^7a_{n-2}a_{n-3}^2a_{n-5}}{a_n^{11}} - \frac{7200a_{n-1}^7a_{n-2}a_{n-3}a_{n-4}^2}{a_n^{11}} + \\
& \frac{9900a_{n-1}^8a_{n-2}^2a_{n-3}a_{n-5}}{a_n^{12}} + \frac{9900a_{n-1}^8a_{n-2}a_{n-3}^2a_{n-4}}{a_n^{12}} - \frac{13200a_{n-1}^9a_{n-2}^2a_{n-3}a_{n-4}}{a_n^{13}} + \\
& \frac{2800a_{n-1}^3a_{n-2}^3a_{n-3}a_{n-8}}{a_n^8} + \frac{2800a_{n-1}^3a_{n-2}^3a_{n-4}a_{n-7}}{a_n^8} + \frac{2800a_{n-1}^3a_{n-2}^3a_{n-5}a_{n-6}}{a_n^8} + \\
& \frac{2800a_{n-1}^3a_{n-2}a_{n-3}^3a_{n-6}}{a_n^8} + \frac{2800a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}^3}{a_n^8} + \frac{2800a_{n-1}a_{n-2}^3a_{n-3}^3a_{n-4}}{a_n^8} - \\
& \frac{5600a_{n-1}^4a_{n-2}^3a_{n-3}a_{n-7}}{a_n^9} - \frac{5600a_{n-1}^4a_{n-2}^3a_{n-4}a_{n-6}}{a_n^9} - \frac{5600a_{n-1}^4a_{n-2}a_{n-3}^3a_{n-5}}{a_n^9} - \\
& \frac{5600a_{n-1}^3a_{n-2}^4a_{n-3}a_{n-6}}{a_n^9} - \frac{5600a_{n-1}^3a_{n-2}^4a_{n-4}a_{n-5}}{a_n^9} + \frac{10080a_{n-1}^5a_{n-2}^3a_{n-3}a_{n-6}}{a_n^{10}} + \\
& \frac{10080a_{n-1}^5a_{n-2}^3a_{n-4}a_{n-5}}{a_n^{10}} + \frac{10080a_{n-1}^5a_{n-2}a_{n-3}^3a_{n-4}}{a_n^{10}} - \\
& \frac{16800a_{n-1}^6a_{n-2}^3a_{n-3}a_{n-5}}{a_n^{11}} + \frac{26400a_{n-1}^7a_{n-2}^3a_{n-3}a_{n-4}}{a_n^{12}} + \frac{12600a_{n-1}^4a_{n-2}^4a_{n-3}a_{n-5}}{a_n^{10}} - \\
& \frac{25200a_{n-1}^5a_{n-2}^4a_{n-3}a_{n-4}}{a_n^{11}} - \frac{1800a_{n-1}^2a_{n-2}^2a_{n-3}^2a_{n-8}}{a_n^7} - \frac{1800a_{n-1}^2a_{n-2}^2a_{n-4}^2a_{n-6}}{a_n^7} - \\
& \frac{1800a_{n-1}^2a_{n-2}^2a_{n-4}a_{n-5}^2}{a_n^7} - \frac{1800a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-5}^2}{a_n^7} + \frac{4200a_{n-1}^3a_{n-2}^2a_{n-3}^2a_{n-7}}{a_n^8} + \\
& \frac{4200a_{n-1}^3a_{n-2}^2a_{n-4}a_{n-5}^2}{a_n^8} + \frac{4200a_{n-1}^3a_{n-2}a_{n-3}^2a_{n-5}^2}{a_n^8} + \frac{4200a_{n-1}^2a_{n-2}^3a_{n-3}^2a_{n-6}}{a_n^8} + \\
& \frac{4200a_{n-1}^2a_{n-2}^3a_{n-3}a_{n-5}}{a_n^8} - \frac{8400a_{n-1}^4a_{n-2}^2a_{n-3}^2a_{n-6}}{a_n^9} - \frac{8400a_{n-1}^4a_{n-2}a_{n-3}^2a_{n-4}^2}{a_n^9} - \\
& \frac{8400a_{n-1}^2a_{n-2}^4a_{n-3}^2a_{n-4}}{a_n^9} + \frac{15120a_{n-1}^5a_{n-2}^2a_{n-3}^2a_{n-5}}{a_n^{10}} + \frac{15120a_{n-1}^5a_{n-2}^2a_{n-3}a_{n-4}^2}{a_n^{10}} - \\
& \frac{25200a_{n-1}^6a_{n-2}^2a_{n-3}^2a_{n-4}}{a_n^{11}} - \frac{11200a_{n-1}^3a_{n-2}^3a_{n-3}^2a_{n-5}}{a_n^9} - \frac{11200a_{n-1}^3a_{n-2}^3a_{n-3}a_{n-4}^2}{a_n^9} - \\
& \frac{11200a_{n-1}^3a_{n-2}^2a_{n-3}^3a_{n-4}}{a_n^9} + \frac{25200a_{n-1}^4a_{n-2}^3a_{n-3}^2a_{n-4}}{a_n^{10}} + \frac{6300a_{n-1}^2a_{n-2}^2a_{n-3}^2a_{n-4}^2}{a_n^8} - \\
& \frac{480a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-10}}{a_n^5} - \frac{480a_{n-1}a_{n-2}a_{n-3}a_{n-5}a_{n-9}}{a_n^5} - \\
& \frac{480a_{n-1}a_{n-2}a_{n-3}a_{n-6}a_{n-8}}{a_n^5} - \frac{480a_{n-1}a_{n-2}a_{n-4}a_{n-5}a_{n-8}}{a_n^5}
\end{aligned}$$

$$\begin{aligned}
& \frac{480a_{n-1}a_{n-2}a_{n-4}a_{n-6}a_{n-7}}{a_n^5} - \frac{480a_{n-1}a_{n-3}a_{n-4}a_{n-5}a_{n-7}}{a_n^5} - \\
& \frac{480a_{n-2}a_{n-3}a_{n-4}a_{n-5}a_{n-6}}{a_n^5} + \frac{1200a_{n-1}^2a_{n-2}a_{n-3}a_{n-4}a_{n-9}}{a_n^6} + \\
& \frac{1200a_{n-1}^2a_{n-2}a_{n-3}a_{n-5}a_{n-8}}{a_n^6} + \frac{1200a_{n-1}^2a_{n-2}a_{n-3}a_{n-6}a_{n-7}}{a_n^6} + \\
& \frac{1200a_{n-1}^2a_{n-2}a_{n-4}a_{n-5}a_{n-7}}{a_n^6} + \frac{1200a_{n-1}^2a_{n-3}a_{n-4}a_{n-5}a_{n-6}}{a_n^6} + \\
& \frac{1200a_{n-1}a_{n-2}^2a_{n-3}a_{n-4}a_{n-8}}{a_n^6} + \frac{1200a_{n-1}a_{n-2}^2a_{n-3}a_{n-5}a_{n-7}}{a_n^6} + \\
& \frac{1200a_{n-1}a_{n-2}^2a_{n-4}a_{n-5}a_{n-6}}{a_n^6} + \frac{1200a_{n-1}a_{n-2}a_{n-3}^2a_{n-4}a_{n-7}}{a_n^6} + \\
& \frac{1200a_{n-1}a_{n-2}a_{n-3}^2a_{n-5}a_{n-6}}{a_n^6} + \frac{1200a_{n-1}a_{n-2}a_{n-3}a_{n-4}a_{n-8}^2}{a_n^7} - \\
& \frac{2400a_{n-1}^3a_{n-2}a_{n-3}a_{n-4}a_{n-7}}{a_n^7} - \\
& \frac{2400a_{n-1}^3a_{n-2}a_{n-3}a_{n-5}a_{n-6}}{a_n^7} - \\
& \frac{2400a_{n-1}a_{n-2}^3a_{n-3}a_{n-4}a_{n-6}}{a_n^7} + \frac{4200a_{n-1}^4a_{n-2}a_{n-3}a_{n-4}a_{n-7}}{a_n^8} + \\
& \frac{4200a_{n-1}^4a_{n-2}a_{n-3}a_{n-5}a_{n-6}}{a_n^8} - \frac{6720a_{n-1}^5a_{n-2}a_{n-3}a_{n-4}a_{n-6}}{a_n^9} + \\
& \frac{10080a_{n-1}^6a_{n-2}a_{n-3}a_{n-4}a_{n-5}}{a_n^{10}} - \frac{3600a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-4}a_{n-7}}{a_n^7} - \\
& \frac{3600a_{n-1}^2a_{n-2}^2a_{n-3}a_{n-5}a_{n-6}}{a_n^7} - \frac{3600a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-4}a_{n-5}}{a_n^7} - \\
& \frac{3600a_{n-1}^2a_{n-2}a_{n-3}^2a_{n-4}a_{n-5}}{a_n^8} + \frac{8400a_{n-1}^3a_{n-2}^2a_{n-3}a_{n-4}a_{n-6}}{a_n^8} + \\
& \frac{8400a_{n-1}^2a_{n-2}^3a_{n-3}a_{n-4}a_{n-5}}{a_n^8} - \frac{16800a_{n-1}^4a_{n-2}^2a_{n-3}a_{n-4}a_{n-5}}{a_n^9}
\end{aligned}$$

Tableau 1::Tabulaire direct

$\sum_{k=1}^n \frac{1}{z_k} = -\frac{a_1}{a_0}$
$\sum_{k=1}^n \frac{1}{z_k^2} = -\frac{2a_2}{a_0} + \frac{a_1^2}{a_0^2}$
$\sum_{k=1}^n \frac{1}{z_k^3} = -\frac{3a_3}{a_0} - \frac{a_1^3}{a_0^3} + \frac{3a_1a_2}{a_0^2}$
$\sum_{k=1}^n \frac{1}{z_k^4} = -\frac{4a_4}{a_0} + \frac{2a_2^2}{a_0^2} + \frac{a_1^4}{a_0^4} + \frac{4a_1a_3}{a_0^2} - \frac{4a_1^2a_2}{a_0^3}$
$\sum_{k=1}^n \frac{1}{z_k^5} = -\frac{5a_5}{a_0} - \frac{a_1^5}{a_0^5} + \frac{5a_1a_4}{a_0^2} + \frac{5a_2a_3}{a_0^2} - \frac{5a_1^2a_3}{a_0^3} - \frac{5a_1a_2^2}{a_0^3} + \frac{5a_1^3a_2}{a_0^4}$
$\sum_{k=1}^n \frac{1}{z_k^6} = -\frac{6a_6}{a_0} + \frac{3a_3^2}{a_0^2} - \frac{2a_2^3}{a_0^3} + \frac{a_1^6}{a_0^6} + \frac{6a_1a_5}{a_0^2} + \frac{6a_2a_4}{a_0^2} - \frac{6a_1^2a_4}{a_0^3} + \frac{6a_1^3a_3}{a_0^4} - \frac{6a_1^4a_2}{a_0^5} +$ $\frac{9a_1^2a_2^2}{a_0^4} - \frac{12a_1a_2a_3}{a_0^3}$
$\sum_{k=1}^n \frac{1}{z_k^7} = -\frac{7a_7}{a_0} - \frac{a_1^7}{a_0^7} + \frac{7a_1a_6}{a_0^2} + \frac{7a_2a_5}{a_0^2} + \frac{7a_3a_4}{a_0^2} - \frac{7a_1^2a_5}{a_0^3} - \frac{7a_1a_3^2}{a_0^3} - \frac{7a_2^2a_3}{a_0^3} +$ $\frac{7a_1^3a_4}{a_0^4} + \frac{7a_1a_2^3}{a_0^4} - \frac{7a_1^4a_3}{a_0^5} + \frac{7a_1^5a_2}{a_0^6} - \frac{14a_1^3a_2^2}{a_0^5} - \frac{14a_1a_2a_4}{a_0^3} + \frac{21a_1^2a_2a_3}{a_0^4}$
$\sum_{k=1}^n \frac{1}{z_k^8} = -\frac{8a_8}{a_n} + \frac{4a_4^2}{a_0^2} + \frac{2a_2^4}{a_0^4} + \frac{a_1^8}{a_n^8} + \frac{8a_1a_7}{a_n^2} + \frac{8a_2a_6}{a_n^2} + \frac{8a_3a_5}{a_n^2} - \frac{8a_1^2a_6}{a_n^3} - \frac{8a_2a_5^2}{a_0^3} -$ $\frac{8a_2^2a_4}{a_0^3} + \frac{8a_1^3a_5}{a_n^4} - \frac{8a_1^4a_4}{a_n^5} + \frac{8a_1^5a_3}{a_n^6} - \frac{8a_1^6a_2}{a_n^7} + \frac{12a_1^2a_3^2}{a_0^4} - \frac{16a_1^2a_2^3}{a_0^5} + \frac{20a_1^4a_2^2}{a_0^6} - \frac{16a_1a_3a_4}{a_0^3}$ $\frac{16a_1a_2a_5}{a_0^3} + \frac{24a_1^2a_2a_4}{a_0^4} + \frac{24a_1a_2^2a_3}{a_0^4} - \frac{32a_1^3a_2a_3}{a_0^5}$
$\sum_{k=1}^n \frac{1}{z_k^9} = -\frac{9a_9}{a_0} - \frac{3a_3^3}{a_0^3} - \frac{a_1^9}{a_0^9} + \frac{9a_1a_8}{a_0^2} + \frac{9a_2a_7}{a_0^2} + \frac{9a_3a_6}{a_0^2} + \frac{9a_4a_5}{a_0^2} - \frac{9a_1^2a_7}{a_0^3} - \frac{9a_1a_4^2}{a_0^3} -$ $\frac{9a_2^2a_5}{a_0^3} + \frac{9a_1^3a_6}{a_0^4} + \frac{9a_2^3a_3}{a_0^4} - \frac{9a_1^4a_5}{a_0^5} - \frac{9a_1a_2^4}{a_0^5} + \frac{9a_1^5a_4}{a_0^6} - \frac{9a_1^6a_3}{a_0^7} + \frac{9a_1^7a_2}{a_0^8} - \frac{18a_1^3a_3^2}{a_0^5} -$ $\frac{27a_1^5a_2^2}{a_0^7} + \frac{30a_1^3a_2^3}{a_0^6} - \frac{18a_1a_2a_6}{a_0^3} - \frac{18a_1a_3a_5}{a_0^3} - \frac{18a_2a_3a_4}{a_0^3} + \frac{27a_1^2a_3a_4}{a_0^4} + \frac{27a_1^2a_2a_5}{a_0^4} +$ $\frac{27a_1a_2^2a_4}{a_0^4} + \frac{27a_1a_2a_3^2}{a_0^4} - \frac{36a_1^3a_2a_4}{a_0^5} + \frac{45a_1^4a_2a_3}{a_0^6} - \frac{54a_1^2a_2^2a_3}{a_0^5}$
$\sum_{k=1}^n \frac{1}{z_k^{10}} = -\frac{10a_{10}}{a_0} + \frac{5a_5^2}{a_0^2} - \frac{2a_2^5}{a_0^5} + \frac{a_1^{10}}{a_0^{10}} + \frac{10a_1a_9}{a_0^2} + \frac{10a_2a_8}{a_0^2} + \frac{10a_3a_7}{a_0^2} + \frac{10a_4a_6}{a_0^2} -$ $\frac{10a_1^2a_8}{a_0^3} - \frac{10a_2a_4^2}{a_0^3} - \frac{10a_2^2a_6}{a_0^3} - \frac{10a_3^2a_4}{a_0^3} + \frac{10a_1^3a_7}{a_0^4} + \frac{10a_1a_3^3}{a_0^4} + \frac{10a_2^3a_6}{a_0^4} - \frac{10a_1^4a_6}{a_0^5} +$ $\frac{10a_1^5a_5}{a_0^6} - \frac{10a_1^6a_4}{a_0^7} + \frac{10a_1^7a_3}{a_0^8} - \frac{10a_1^8a_2}{a_0^9} + \frac{15a_1^2a_4^2}{a_0^4} + \frac{15a_2^2a_3^2}{a_0^4} + \frac{25a_1^2a_4^4}{a_0^6} + \frac{25a_1^4a_3^2}{a_0^6} +$ $\frac{35a_1^6a_2^2}{a_0^8} - \frac{50a_1^4a_3^3}{a_0^7} - \frac{20a_1a_2a_7}{a_0^3} - \frac{20a_1a_3a_6}{a_0^3} - \frac{20a_1a_4a_5}{a_0^3} - \frac{20a_2a_3a_5}{a_0^3} + \frac{30a_1^2a_3a_5}{a_0^4} +$ $\frac{30a_1^2a_2a_6}{a_0^4} + \frac{30a_1a_2^2a_5}{a_0^4} - \frac{40a_1^3a_2a_5}{a_0^5} - \frac{40a_1^3a_3a_4}{a_0^5} - \frac{40a_1a_2^3a_3}{a_0^5} + \frac{50a_1^4a_2a_4}{a_0^6} - \frac{60a_1^5a_2a_3}{a_0^7} -$ $\frac{60a_1^2a_2^2a_4}{a_0^5} - \frac{60a_1^2a_2a_3^2}{a_0^5} + \frac{100a_1^3a_2^2a_3}{a_0^6} + \frac{60a_1a_2a_3a_4}{a_0^4}$

$$\begin{aligned}
\sum_{k=1}^n \frac{1}{z_k^{11}} = & -\frac{11a_{11}}{a_0} - \frac{a_1^{11}}{a_0^{11}} + \frac{11a_1a_{10}}{a_0^2} + \frac{11a_2a_9}{a_0^2} + \frac{11a_3a_8}{a_0^2} + \frac{11a_4a_7}{a_0^2} + \frac{11a_5a_6}{a_0^2} - \\
& \frac{11a_1^2a_9}{a_0^3} - \frac{11a_1a_5^2}{a_0^3} - \frac{11a_3a_4^2}{a_0^3} - \frac{11a_2^2a_7}{a_0^3} - \frac{11a_3^2a_5}{a_0^3} + \frac{11a_1^3a_8}{a_0^4} + \frac{11a_2a_3^3}{a_0^4} + \frac{11a_3^3a_5}{a_0^4} - \\
& \frac{11a_1^4a_7}{a_0^5} - \frac{11a_2^4a_3}{a_0^5} + \frac{11a_1^5a_6}{a_0^6} + \frac{11a_1a_2^5}{a_0^6} - \frac{11a_1^6a_5}{a_0^7} + \frac{11a_1^7a_4}{a_0^8} - \frac{11a_1^8a_3}{a_0^9} + \frac{11a_1^9a_2}{a_0^{10}} - \\
& \frac{22a_1^2a_3^3}{a_0^5} - \frac{22a_1^3a_4^2}{a_0^5} - \frac{33a_1^5a_3^2}{a_0^7} - \frac{44a_1^7a_2^2}{a_0^9} - \frac{55a_1^3a_2^4}{a_0^7} + \frac{77a_1^5a_2^3}{a_0^8} - \frac{22a_1a_2a_8}{a_0^3} - \frac{22a_1a_3a_7}{a_0^3} - \\
& \frac{22a_1a_4a_6}{a_0^3} - \frac{22a_2a_3a_6}{a_0^3} - \frac{22a_2a_4a_5}{0} + \frac{33a_1^2a_2a_7}{a_0^4} + \frac{33a_1^2a_3a_6}{a_0^4} + \frac{33a_1^2a_4a_5}{a_0^4} + \frac{33a_2^2a_3a_4}{a_0^4} + \\
& \frac{33a_1a_2^2a_6}{a_0^4} + \frac{33a_1a_3^2a_4}{a_0^4} + \frac{33a_1a_2a_4^2}{a_0^4} - \frac{44a_1^3a_2a_6}{a_0^5} - \frac{44a_1^3a_3a_5}{a_0^5} - \frac{44a_1a_2^3a_4}{a_0^5} + \frac{55a_1^4a_2a_5}{a_0^6} + \\
& \frac{55a_1^4a_3a_4}{a_0^6} - \frac{66a_1^5a_2a_4}{a_0^6} + \frac{77a_1^6a_2a_3}{a_0^8} - \frac{66a_1^2a_2^2a_5}{a_0^5} - \frac{66a_1a_2^2a_3^2}{a_0^5} + \frac{110a_1^3a_2^2a_4}{a_0^6} + \\
& \frac{110a_1^3a_2a_3^2}{a_0^6} + \frac{110a_1^2a_2^3a_3}{a_0^7} - \frac{165a_1^4a_2^2a_3}{a_0^7} + \frac{66a_1a_2a_3a_5}{a_0^4} - \frac{132a_1^2a_2a_3a_4}{a_0^5}
\end{aligned}$$
  

$$\begin{aligned}
\sum_{k=1}^n \frac{1}{z_k^{12}} = & -\frac{12a_{12}}{a_0} + \frac{6a_6^2}{a_0^2} - \frac{4a_4^3}{a_0^3} + \frac{3a_4^4}{a_0^4} + \frac{2a_2^6}{a_0^6} + \frac{a_1^{12}}{a_0^{12}} + \frac{12a_1a_{11}}{a_0^2} + \frac{12a_2a_{10}}{a_0^2} + \\
& \frac{12a_3a_9}{a_0^2} + \frac{12a_4a_8}{a_0^2} + \frac{12a_5a_7}{a_0^2} - \frac{12a_2^2a_{10}}{a_0^3} - \frac{12a_2a_5^2}{a_0^3} - \frac{12a_2^2a_8}{a_0^3} - \frac{12a_3^2a_6}{a_0^3} + \frac{12a_1^3a_9}{a_0^4} + \\
& \frac{12a_2^3a_6}{a_0^4} - \frac{12a_1^4a_8}{a_0^5} - \frac{12a_2^4a_4}{a_0^5} + \frac{12a_1^5a_7}{a_0^6} - \frac{12a_1^6a_6}{a_0^7} + \frac{12a_1^7a_5}{a_0^8} - \frac{12a_1^8a_4}{a_0^9} + \frac{12a_1^9a_3}{a_0^{10}} - \\
& \frac{12a_1^{10}a_2}{a_0^4} + \frac{18a_1^2a_5^2}{a_0^4} + \frac{18a_2^2a_4^2}{a_0^6} - \frac{24a_2^3a_3^2}{a_0^6} + \frac{30a_1^4a_4^2}{a_0^6} - \frac{36a_1^2a_5^2}{a_0^7} + \frac{42a_1^6a_3^2}{a_0^8} + \frac{54a_1^8a_2^2}{a_0^{10}} + \\
& \frac{40a_1^3a_3^3}{a_0^6} - \frac{112a_1^6a_3^2}{a_0^9} + \frac{105a_1^4a_2^4}{a_0^8} - \frac{24a_1a_2a_9}{a_0^3} - \frac{24a_1a_3a_8}{a_0^3} - \frac{24a_1a_4a_7}{a_0^3} - \frac{24a_1a_5a_6}{a_0^3} - \\
& \frac{24a_2a_3a_7}{a_0^3} - \frac{24a_2a_4a_6}{a_0^3} - \frac{24a_3a_4a_5}{a_0^3} + \frac{36a_1^2a_2a_8}{a_0^4} + \frac{36a_1^2a_3a_7}{a_0^4} + \frac{36a_1^2a_4a_6}{a_0^4} + \frac{36a_2^2a_3a_5}{a_0^4} + \\
& \frac{36a_1a_2^2a_7}{a_0^4} + \frac{36a_2a_3^2a_4}{a_0^4} + \frac{36a_1a_3^2a_5}{a_0^4} + \frac{36a_1a_3a_4^2}{a_0^4} - \frac{48a_1^3a_2a_7}{a_0^5} - \frac{48a_1^3a_3a_6}{a_0^5} - \frac{48a_1^3a_4a_5}{a_0^5} - \\
& \frac{48a_1a_2^3a_5}{a_0^5} - \frac{48a_1a_2a_3^3}{a_0^6} + \frac{60a_1^4a_2a_6}{a_0^6} + \frac{60a_1^4a_3a_5}{a_0^6} + \frac{60a_1a_2^4a_3}{a_0^6} - \frac{72a_1^5a_2a_5}{a_0^7} - \frac{72a_1^5a_3a_4}{a_0^7} + \\
& \frac{84a_1^6a_2a_4}{a_0^8} - \frac{96a_1^7a_2a_3}{a_0^9} - \frac{72a_1^2a_2^2a_6}{a_0^5} - \frac{72a_1^2a_3^2a_4}{a_0^5} - \frac{72a_1^2a_2a_4^2}{a_0^5} + \frac{120a_1^3a_2^2a_5}{a_0^6} + \\
& \frac{120a_1^2a_2^3a_4}{a_0^6} - \frac{180a_1^4a_2^2a_4}{a_0^7} - \frac{180a_1^4a_2a_3^2}{a_0^7} + \frac{252a_1^5a_2^2a_3}{a_0^8} - \frac{240a_1^3a_2^3a_3}{a_0^7} + \frac{180a_1^2a_2^2a_3^2}{a_0^6} + \\
& \frac{72a_1a_2a_3a_6}{a_0^4} + \frac{72a_1a_2a_4a_5}{a_0^4} - \frac{144a_1^2a_2a_3a_5}{a_0^5} - \frac{144a_1a_2^2a_3a_4}{a_0^5} + \frac{240a_1^3a_2a_3a_4}{a_0^6}
\end{aligned}$$
  

$$\begin{aligned}
\sum_{k=1}^n \frac{1}{z_k^{13}} = & -\frac{13a_{13}}{a_0} - \frac{a_1^{13}}{a_0^{13}} + \frac{13a_1a_{12}}{a_0^2} + \frac{13a_2a_{11}}{a_0^2} + \frac{13a_3a_{10}}{a_0^2} + \frac{13a_4a_9}{a_0^2} + \frac{13a_5a_8}{a_0^2} + \\
& \frac{13a_6a_7}{a_0^2} - \frac{13a_1^2a_{11}}{a_0^3} - \frac{13a_1a_6^2}{a_0^3} - \frac{13a_3a_5^2}{a_0^3} - \frac{13a_2^2a_9}{a_0^3} - \frac{13a_3^2a_7}{a_0^3} - \frac{13a_4^2a_5}{a_0^3} + \frac{13a_1^3a_{10}}{a_0^4} + \\
& \frac{13a_1a_4^3}{a_0^4} + \frac{13a_2^3a_7}{a_0^4} + \frac{13a_3^3a_4}{a_0^4} - \frac{13a_1^4a_9}{a_0^5} - \frac{13a_1a_3^4}{a_0^5} - \frac{13a_2^4a_5}{a_0^5} + \frac{13a_1^5a_8}{a_0^6} + \frac{13a_2^5a_3}{a_0^6} - \\
& \frac{13a_1^6a_7}{a_0^7} - \frac{13a_1a_2^6}{a_0^7} + \frac{13a_1^7a_6}{a_0^8} - \frac{13a_1^9a_5}{a_0^9} + \frac{13a_1^9a_4}{a_0^{10}} - \frac{13a_1^{10}a_3}{a_0^{11}} + \frac{13a_1^{11}a_2}{a_0^{12}} - \frac{26a_1^3a_5^2}{a_0^5} - \\
& \frac{26a_2^2a_3^3}{a_0^5} - \frac{39a_1^5a_2^2}{a_0^7} - \frac{52a_1^7a_2^2}{a_0^9} - \frac{65a_1^9a_2^2}{a_0^{11}} - \frac{65a_1^4a_3^3}{a_0^7} + \frac{91a_1^3a_2^5}{a_0^8} + \frac{156a_1^7a_2^3}{a_0^{10}} - \frac{182a_1^5a_2^4}{a_0^9}
\end{aligned}$$

$$\begin{aligned}
& \frac{26a_1a_2a_{10}}{a_0^3} - \frac{26a_1a_3a_9}{a_0^3} - \frac{26a_1a_4a_8}{a_0^3} - \frac{26a_1a_5a_7}{a_0^3} - \frac{26a_2a_3a_8}{a_0^3} - \frac{26a_2a_4a_7}{a_0^3} - \frac{26a_2a_5a_6}{a_0^3} - \\
& \frac{26a_3a_4a_6}{a_0^3} + \frac{39a_1^2a_2a_9}{a_0^4} + \frac{39a_1^2a_3a_8}{a_0^4} + \frac{39a_1^2a_4a_7}{a_0^4} + \frac{39a_1^2a_5a_6}{a_0^4} + \frac{39a_1a_2^2a_8}{a_0^4} + \frac{39a_1a_3^2a_6}{a_0^4} + \\
& \frac{39a_1a_2a_5^2}{a_0^4} + \frac{39a_2^2a_3a_6}{a_0^4} + \frac{39a_2^2a_4a_5}{a_0^4} + \frac{39a_2a_3^2a_5}{a_0^4} + \frac{39a_2a_3a_4^2}{a_0^4} - \frac{52a_1^3a_2a_8}{a_0^5} - \frac{52a_1^3a_3a_7}{a_0^5} - \\
& \frac{52a_1^3a_4a_6}{a_0^5} - \frac{52a_1a_3^2a_6}{a_0^5} - \frac{52a_2^3a_3a_4}{a_0^5} + \frac{65a_1^4a_2a_7}{a_0^6} + \frac{65a_1^4a_3a_6}{a_0^6} + \frac{65a_1^4a_4a_5}{a_0^6} + \frac{65a_1a_2^4a_4}{a_0^6} - \\
& \frac{78a_1^5a_2a_6}{a_0^7} - \frac{78a_1^5a_3a_5}{a_0^7} + \frac{91a_1^6a_2a_5}{a_0^8} + \frac{91a_1^6a_3a_4}{a_0^8} - \frac{104a_1^7a_2a_4}{a_0^9} + \frac{117a_1^8a_2a_3}{a_0^{10}} - \\
& \frac{78a_1^2a_2^2a_7}{a_0^5} - \frac{78a_1^2a_3^2a_5}{a_0^5} - \frac{78a_1^2a_3a_4^2}{a_0^5} - \frac{78a_1a_2^2a_4^2}{a_0^5} + \frac{130a_1^3a_2^2a_6}{a_0^6} + \frac{130a_1^3a_3^2a_4}{a_0^6} + \\
& \frac{130a_1^3a_2a_4^2}{a_0^6} + \frac{130a_1^2a_3^2a_5}{a_0^6} + \frac{130a_1a_2^3a_3^2}{a_0^6} + \frac{130a_1^2a_2a_3^3}{a_0^6} - \frac{195a_1^4a_2^2a_5}{a_0^7} - \frac{195a_1^2a_2^4a_3}{a_0^7} + \\
& \frac{273a_1^5a_2^2a_4}{a_0^8} + \frac{273a_1^5a_2a_3^2}{a_0^8} - \frac{364a_1^6a_2^2a_3}{a_0^9} - \frac{260a_1^3a_2^3a_4}{a_0^7} + \frac{455a_1^4a_2^3a_3}{a_0^8} - \frac{390a_1^3a_2^2a_3^2}{a_0^7} + \\
& \frac{78a_1a_2a_3a_7}{a_0^4} + \frac{78a_1a_2a_4a_6}{a_0^4} + \frac{78a_1a_3a_4a_5}{a_0^4} - \frac{156a_1^2a_2a_3a_6}{a_0^5} - \frac{156a_1^2a_2a_4a_5}{a_0^5} - \\
& \frac{156a_1a_2^2a_3a_5}{a_0^5} - \frac{156a_1a_2a_3^2a_4}{a_0^5} + \frac{260a_1^3a_2a_3a_5}{a_0^6} - \frac{390a_1^4a_2a_3a_4}{a_0^7} + \frac{390a_1^2a_2^2a_3a_4}{a_0^6} \\
& \sum_{k=1}^n \frac{1}{z_k^{14}} = -\frac{14a_{14}}{a_0} + \frac{7a_7^2}{a_0^2} - \frac{2a_2^7}{a_0^7} + \frac{a_1^{14}}{a_0^{14}} + \frac{14a_1a_{13}}{a_0^2} + \frac{14a_2a_{12}}{a_0^2} + \frac{14a_3a_{11}}{a_0^2} + \\
& \frac{14a_4a_{10}}{a_0^2} + \frac{14a_5a_9}{a_0^2} + \frac{14a_6a_8}{a_0^2} - \frac{14a_2^2a_{12}}{a_0^3} - \frac{14a_2a_6^2}{a_0^3} - \frac{14a_4a_5^2}{a_0^3} - \frac{14a_2^2a_{10}}{a_0^3} - \frac{14a_3^2a_8}{a_0^3} - \\
& \frac{14a_4^2a_6}{a_0^3} + \frac{14a_1^3a_{11}}{a_0^4} + \frac{14a_2a_4^3}{a_0^4} + \frac{14a_2^3a_8}{a_0^4} + \frac{14a_3^3a_5}{a_0^4} - \frac{14a_1^4a_{10}}{a_0^5} - \frac{14a_2a_3^4}{a_0^5} - \frac{14a_2^4a_6}{a_0^5} + \\
& \frac{14a_1^5a_9}{a_0^6} + \frac{14a_2^5a_4}{a_0^6} - \frac{14a_1^6a_8}{a_0^7} + \frac{14a_1^7a_7}{a_0^8} - \frac{14a_1^8a_6}{a_0^9} + \frac{14a_1^9a_5}{a_0^{10}} - \frac{14a_1^{10}a_4}{a_0^{11}} + \frac{14a_1^{11}a_3}{a_0^{12}} - \\
& \frac{14a_1^{12}a_2}{a_0^{13}} + \frac{21a_1^2a_6^2}{a_0^4} + \frac{21a_2^2a_5^2}{a_0^4} + \frac{21a_3^2a_4^2}{a_0^4} - \frac{28a_1^2a_4^3}{a_0^5} - \frac{28a_2^2a_4^2}{a_0^5} + \frac{35a_1^4a_5^2}{a_0^6} + \frac{35a_1^2a_3^4}{a_0^6} + \\
& \frac{35a_2^4a_3^2}{a_0^6} + \frac{49a_1^2a_6^2}{a_0^8} + \frac{49a_1^6a_4^2}{a_0^8} + \frac{63a_1^8a_3^2}{a_0^{10}} + \frac{77a_1^{10}a_2^2}{a_0^{12}} + \frac{98a_1^5a_3^3}{a_0^8} - \frac{210a_1^8a_2^3}{a_0^{11}} - \frac{196a_1^4a_2^5}{a_0^9} + \\
& \frac{294a_1^6a_2^4}{a_0^{10}} - \frac{28a_1a_2a_{11}}{a_0^3} - \frac{28a_1a_3a_{10}}{a_0^3} - \frac{28a_1a_4a_9}{a_0^3} - \frac{28a_1a_5a_8}{a_0^3} - \frac{28a_1a_6a_7}{a_0^3} - \frac{28a_2a_3a_9}{a_0^3} - \\
& \frac{28a_2a_4a_8}{a_0^3} - \frac{28a_2a_5a_7}{a_0^3} - \frac{28a_3a_4a_7}{a_0^3} - \frac{28a_3a_5a_6}{a_0^3} + \frac{42a_1^2a_2a_{10}}{a_0^4} + \frac{42a_1^2a_3a_9}{a_0^4} + \frac{42a_1^2a_4a_8}{a_0^4} + \\
& \frac{42a_1^2a_5a_7}{a_0^4} + \frac{42a_1a_3a_5^2}{a_0^4} + \frac{42a_1a_2^2a_9}{a_0^4} + \frac{42a_1a_3^2a_7}{a_0^4} + \frac{42a_1a_4^2a_5}{a_0^4} + \frac{42a_2^2a_3a_7}{a_0^4} + \frac{42a_2^2a_4a_6}{a_0^4} + \\
& \frac{42a_2a_3^2a_6}{a_0^4} - \frac{56a_1^3a_2a_9}{a_0^5} - \frac{56a_1^3a_3a_8}{a_0^5} - \frac{56a_1^3a_4a_7}{a_0^5} - \frac{56a_1^3a_5a_6}{a_0^5} - \frac{56a_{n-1}a_2^3a_7}{a_0^5} - \\
& \frac{56a_1a_3^3a_4}{a_0^5} - \frac{56a_2^3a_3a_5}{a_0^5} + \frac{70a_1^4a_2a_8}{a_0^6} + \frac{70a_1^4a_3a_7}{a_0^6} + \frac{70a_1^4a_4a_6}{a_0^6} + \frac{70a_1a_2^4a_5}{a_0^6} - \frac{84a_1^5a_2a_7}{a_0^7} - \\
& \frac{84a_1^5a_3a_6}{a_0^7} - \frac{84a_1^5a_4a_5}{a_0^7} - \frac{84a_1a_2^5a_3}{a_0^7} + \frac{98a_1^6a_2a_6}{a_0^8} + \frac{98a_1^6a_3a_5}{a_0^8} - \frac{112a_1^7a_2a_5}{a_0^9} - \\
& \frac{112a_1^7a_3a_4}{a_0^9} + \frac{126a_1^8a_2a_4}{a_0^{10}} - \frac{140a_1^9a_2a_3}{a_0^{11}} - \frac{84a_1^2a_2^2a_8}{a_0^5} - \frac{84a_1^2a_3^2a_6}{a_0^5} - \frac{84a_1^2a_2a_5^2}{a_0^5} - \\
& \frac{84a_2^2a_3^2a_4}{a_0^5} + \frac{140a_1^3a_2^2a_7}{a_0^6} + \frac{140a_1^3a_2^2a_5}{a_0^6} + \frac{140a_1^3a_3a_4^2}{a_0^6} + \frac{140a_1^2a_2^3a_6}{a_0^6} + \frac{140a_1a_2^2a_3^2}{a_0^6}
\end{aligned}$$

$$\begin{aligned}
& \frac{210a_1^4a_2^2a_6}{a_0^7} - \frac{210a_1^4a_3^2a_4}{a_0^7} - \frac{210a_1^4a_2a_4^2}{a_0^7} - \frac{210a_1^2a_2^4a_4}{a_0^7} + \frac{294a_1^5a_2a_5}{a_0^8} - \frac{392a_1^6a_2^2a_4}{a_0^9} - \\
& \frac{392a_1^6a_2a_3^2}{a_0^9} + \frac{504a_1^7a_2^2a_3}{a_0^{10}} - \frac{280a_1^3a_2^3a_5}{a_0^7} - \frac{280a_1^3a_2a_3^3}{a_0^7} + \frac{490a_1^4a_2^3a_4}{a_0^8} + \frac{490a_1^3a_2^4a_3}{a_0^8} - \\
& \frac{784a_1^5a_2^3a_3}{a_0^9} + \frac{210a_1^2a_2^2a_4^2}{a_0^6} - \frac{420a_1^2a_2^3a_3^2}{a_0^7} + \frac{735a_1^4a_2^2a_3^2}{a_0^8} + \frac{84a_1a_2a_3a_8}{a_0^4} + \frac{84a_1a_2a_4a_7}{a_0^4} + \\
& \frac{84a_1a_2a_5a_6}{a_0^4} + \frac{84a_1a_3a_4a_6}{a_0^4} + \frac{84a_2a_3a_4a_5}{a_0^4} - \frac{168a_1^2a_2a_3a_7}{a_0^5} - \frac{168a_1^2a_2a_4a_6}{a_0^5} - \\
& \frac{168a_1^2a_3a_4a_5}{a_0^5} - \frac{168a_1a_2^2a_3a_6}{a_0^5} - \frac{168a_1a_2^2a_4a_5}{a_0^5} - \frac{168a_1a_2a_3^2a_5}{a_0^5} - \frac{168a_1a_2a_3a_4^2}{a_0^5} + \\
& \frac{280a_1^3a_2a_3a_6}{a_0^6} + \frac{280a_1^3a_2a_4a_5}{a_0^6} + \frac{280a_1a_2^3a_3a_4}{a_0^6} - \frac{420a_1^4a_2a_3a_5}{a_0^7} + \frac{588a_1^5a_2a_3a_4}{a_0^8} + \\
& \frac{420a_1^2a_2^2a_3a_5}{a_0^6} + \frac{420a_1^2a_2a_3^2a_4}{a_0^6} - \frac{840a_1^3a_2^2a_3a_4}{a_0^7} \\
& \sum_{k=1}^n \frac{1}{z_k^{15}} = - \frac{15a_{15}}{a_0} - \frac{5a_5^3}{a_0^3} - \frac{3a_3^5}{a_0^5} - \frac{a_1^{15}}{a_0^{15}} + \frac{15a_1a_{14}}{a_0^2} + \frac{15a_2a_{13}}{a_0^2} + \frac{15a_3a_{12}}{a_0^2} + \\
& \frac{15a_4a_{11}}{a_0^2} + \frac{15a_5a_{10}}{a_0^2} + \frac{15a_6a_9}{a_0^2} + \frac{15a_7a_8}{a_0^2} - \frac{15a_1^2a_{13}}{a_0^3} - \frac{15a_1a_7^2}{a_0^3} - \frac{15a_3a_6^2}{a_0^3} - \frac{15a_2^2a_{11}}{a_0^3} - \\
& \frac{15a_3^2a_9}{a_0^3} - \frac{15a_4^2a_7}{a_0^3} + \frac{15a_3^3a_{12}}{a_0^4} + \frac{15a_3a_4^3}{a_0^4} + \frac{15a_3^2a_9}{a_0^4} + \frac{15a_3^3a_6}{a_0^4} - \frac{15a_4^4a_{11}}{a_0^5} - \frac{15a_2^2a_7}{a_0^5} + \\
& \frac{15a_1^5a_{10}}{a_0^6} + \frac{15a_2^5a_5}{a_0^6} - \frac{15a_1^6a_9}{a_0^7} - \frac{15a_2^6a_3}{a_0^7} + \frac{15a_1^7a_8}{a_0^8} + \frac{15a_1a_2^7}{a_0^8} - \frac{15a_1^8a_7}{a_0^9} + \frac{15a_1^9a_6}{a_0^{10}} - \\
& \frac{15a_1^{10}a_5}{a_0^{11}} + \frac{15a_1^{11}a_4}{a_0^{12}} - \frac{15a_1^{12}a_3}{a_0^{13}} + \frac{15a_1^{13}a_2}{a_0^{14}} - \frac{30a_1^3a_6^2}{a_0^5} - \frac{45a_1^5a_5^2}{a_0^7} - \frac{60a_1^7a_4^2}{a_0^9} - \frac{75a_1^9a_3^2}{a_0^{11}} - \\
& \frac{90a_1^{11}a_2^2}{a_0^{13}} + \frac{50a_1^3a_4^3}{a_0^6} + \frac{50a_2^3a_3^3}{a_0^6} - \frac{75a_1^3a_3^4}{a_0^7} - \frac{140a_1^6a_3^3}{a_0^9} - \frac{140a_1^3a_2^6}{a_0^9} + \frac{275a_1^9a_2^3}{a_0^{12}} - \frac{450a_1^7a_2^4}{a_0^{11}} + \\
& \frac{378a_1^5a_2^5}{a_0^{10}} - \frac{30a_1a_2a_{12}}{a_0^3} - \frac{30a_1a_3a_{11}}{a_0^3} - \frac{30a_1a_4a_{10}}{a_0^3} - \frac{30a_1a_5a_9}{a_0^3} - \frac{30a_1a_6a_8}{a_0^3} - \\
& \frac{30a_2a_3a_{10}}{a_0^3} - \frac{30a_2a_4a_9}{a_0^3} - \frac{30a_2a_5a_8}{a_0^3} - \frac{30a_2a_6a_7}{a_0^3} - \frac{30a_3a_4a_8}{a_0^3} - \frac{30a_3a_5a_7}{a_0^3} - \frac{30a_4a_5a_6}{a_0^3} + \\
& \frac{45a_1^2a_2a_{11}}{a_0^4} + \frac{45a_1^2a_3a_{10}}{a_0^4} + \frac{45a_1^2a_4a_9}{a_0^4} + \frac{45a_1^2a_5a_8}{a_0^4} + \frac{45a_1^2a_6a_7}{a_0^4} + \frac{45a_1a_2a_6^2}{a_0^4} + \\
& \frac{45a_1a_4a_5^2}{a_0^4} + \frac{45a_1a_2^2a_{10}}{a_0^4} + \frac{45a_1a_3^2a_8}{a_0^4} + \frac{45a_1a_4^2a_6}{a_0^4} + \frac{45a_2^2a_3a_8}{a_0^4} + \frac{45a_2^2a_4a_7}{a_0^4} + \frac{45a_2^2a_5a_6}{a_0^4} + \\
& \frac{45a_2a_3^2a_7}{a_0^4} + \frac{45a_3^2a_4a_5}{a_0^4} + \frac{45a_2a_4^2a_5}{a_0^4} + \frac{45a_2a_3a_5^2}{a_0^4} - \frac{60a_1^3a_2a_{10}}{a_0^5} - \frac{60a_1^3a_3a_9}{a_0^5} - \frac{60a_1^3a_4a_8}{a_0^5} - \\
& \frac{60a_1^3a_5a_7}{a_0^5} - \frac{60a_1a_2a_4^3}{a_0^5} - \frac{60a_1a_2^3a_8}{a_0^5} - \frac{60a_1a_3^3a_5}{a_0^5} - \frac{60a_2^3a_3a_6}{a_0^5} - \frac{60a_2^3a_4a_5}{a_0^5} - \frac{60a_2a_3^3a_4}{a_0^5} + \\
& \frac{75a_1^4a_2a_9}{a_0^6} + \frac{75a_1^4a_3a_8}{a_0^6} + \frac{75a_1^4a_4a_7}{a_0^6} + \frac{75a_1^4a_5a_6}{a_0^6} + \frac{75a_1a_2a_3^4}{a_0^6} + \frac{75a_1a_2a_4^4}{a_0^6} + \frac{75a_2^4a_3a_4}{a_0^6} - \\
& \frac{90a_1^5a_2a_8}{a_0^7} - \frac{90a_1^5a_3a_7}{a_0^7} - \frac{90a_1^5a_4a_6}{a_0^7} - \frac{90a_1a_2^5a_4}{a_0^7} + \frac{105a_1^6a_2a_7}{a_0^8} + \frac{105a_1^6a_3a_6}{a_0^8} + \\
& \frac{105a_1^6a_4a_5}{a_0^8} - \frac{120a_1^7a_2a_6}{a_0^9} - \frac{120a_1^7a_3a_5}{a_0^9} + \frac{135a_1^8a_2a_5}{a_0^{10}} + \frac{135a_1^8a_3a_4}{a_0^{10}} - \frac{150a_1^9a_2a_4}{a_0^{11}} + \\
& \frac{165a_1^{10}a_2a_3}{a_0^{12}} - \frac{90a_1^2a_2^2a_9}{a_0^5} - \frac{90a_1^2a_3^2a_7}{a_0^5} - \frac{90a_1^2a_4^2a_5}{a_0^5} - \frac{90a_1^2a_3a_5^2}{a_0^5} - \frac{90a_1a_2^2a_5^2}{a_0^5} - \\
& \frac{90a_1a_3^2a_4^2}{a_0^5} - \frac{90a_2^2a_3^2a_5}{a_0^5} - \frac{90a_2^2a_3a_4^2}{a_0^5} + \frac{150a_3^3a_2^2a_8}{a_0^6} + \frac{150a_1^3a_2^2a_6}{a_0^6} + \frac{150a_1^3a_2a_5^2}{a_0^6} +
\end{aligned}$$

$$\begin{aligned}
& \frac{150a_1^2a_2^3a_7}{a_0^6} + \frac{150a_1^2a_3^3a_4}{a_0^6} + \frac{150a_1a_2^3a_4^2}{a_0^6} - \frac{225a_1^4a_2^2a_7}{a_0^7} - \frac{225a_1^4a_3^2a_5}{a_0^7} - \frac{225a_1^4a_3a_4^2}{a_0^7} - \\
& \frac{225a_1^2a_2^4a_5}{a_0^7} - \frac{225a_1a_2^4a_3^2}{a_0^7} + \frac{315a_1^5a_2^2a_6}{a_0^8} + \frac{315a_1^5a_3^2a_4}{a_0^8} + \frac{315a_1^5a_2a_4^2}{a_0^8} + \frac{315a_1^2a_2^5a_3}{a_0^8} - \\
& \frac{420a_1^6a_2^2a_5}{a_0^9} + \frac{540a_1^7a_2^2a_4}{a_0^{10}} + \frac{540a_1^7a_2a_3^2}{a_0^{10}} - \frac{675a_1^8a_2^2a_3}{a_0^{11}} - \frac{300a_1^3a_2^3a_6}{a_0^7} + \frac{525a_1^4a_2^3a_5}{a_0^8} + \\
& \frac{525a_1^4a_2a_3^3}{a_0^8} + \frac{525a_1^3a_2^4a_4}{a_0^8} - \frac{840a_1^5a_2^3a_4}{a_0^9} + \frac{1260a_1^6a_2^3a_3}{a_0^{10}} - \frac{1050a_1^4a_2^4a_3}{a_0^9} - \frac{450a_1^3a_2^2a_4^2}{a_0^7} - \\
& \frac{450a_1^2a_2^2a_3^3}{a_0^7} - \frac{1260a_1^5a_2^2a_3^2}{a_0^9} + \frac{1050a_1^3a_2^3a_3^2}{a_0^8} + \frac{90a_1a_2a_3a_9}{a_0^4} + \frac{90a_1a_2a_4a_8}{a_0^4} + \frac{90a_1a_2a_5a_7}{a_0^4} + \\
& \frac{90a_1a_3a_4a_7}{a_0^4} + \frac{90a_1a_3a_5a_6}{a_0^4} + \frac{90a_2a_3a_4a_6}{a_0^4} - \frac{180a_1^2a_2a_3a_8}{a_0^5} - \frac{180a_1^2a_2a_4a_7}{a_0^5} - \\
& \frac{180a_1^2a_2a_5a_6}{a_0^5} - \frac{180a_1^2a_3a_4a_6}{a_0^5} - \frac{180a_1a_2^2a_3a_7}{a_0^5} - \frac{180a_1a_2^2a_4a_6}{a_0^5} - \frac{180a_1a_2a_3^2a_6}{a_0^4} + \\
& \frac{300a_1^3a_2a_3a_7}{a_0^6} + \frac{360a_1^3a_2a_4a_6}{a_0^6} + \frac{360a_1^3a_3a_4a_5}{a_0^6} + \frac{300a_1a_2^3a_3a_5}{a_0^6} - \frac{450a_1^4a_2a_3a_6}{a_0^7} - \\
& \frac{450a_1^4a_2a_4a_5}{a_0^7} + \frac{630a_1^5a_2a_3a_5}{a_0^8} - \frac{840a_1^6a_2a_3a_4}{a_0^9} + \frac{450a_1^2a_2^2a_3a_6}{a_0^6} + \frac{450a_1^2a_2^2a_4a_5}{a_0^6} + \\
& \frac{450a_1^2a_2a_3^2a_5}{a_0^6} + \frac{450a_1^2a_2a_3a_4^2}{a_0^6} + \frac{450a_1a_2^2a_3^2a_4}{a_0^6} - \frac{900a_1^3a_2^2a_3a_5}{a_0^7} - \frac{900a_1^3a_2a_3^2a_4}{a_0^7} - \\
& \frac{900a_1^2a_3^3a_4a_4}{a_0^7} + \frac{1575a_1^4a_2^2a_3a_4}{a_0^8} - \frac{360a_1a_2a_3a_4a_5}{a_0^5}
\end{aligned}$$
  

$$\sum_{k=1}^n \frac{1}{z_k^{16}} = -\frac{16a_{16}}{a_0} + \frac{8a_8^2}{a_0^2} + \frac{4a_4^4}{a_0^4} + \frac{2a_2^8}{a_0^8} + \frac{a_1^{16}}{a_0^{16}} + \frac{16a_1a_{15}}{a_0^2} + \frac{16a_2a_{14}}{a_0^2} + \frac{16a_3a_{13}}{a_0^2} + \\
\frac{16a_4a_{12}}{a_0^2} + \frac{16a_5a_{11}}{a_0^2} + \frac{16a_6a_{10}}{a_0^2} + \frac{16a_7a_9}{a_0^2} - \frac{16a_1^2a_{14}}{a_0^3} - \frac{16a_4a_6^2}{a_0^3} - \frac{16a_2^2a_{12}}{a_0^3} - \frac{16a_3^2a_{10}}{a_0^3} - \\
\frac{16a_4^2a_8}{a_0^3} - \frac{16a_5^2a_6}{a_0^3} - \frac{16a_2a_7^2}{a_0^3} + \frac{16a_1^3a_{13}}{a_0^4} + \frac{16a_1a_5^3}{a_0^4} + \frac{16a_2^3a_{10}}{a_0^4} + \frac{16a_3^3a_7}{a_0^4} - \frac{16a_1^4a_{12}}{a_0^5} - \\
\frac{16a_2^4a_8}{a_0^5} - \frac{16a_3^4a_4}{a_0^5} + \frac{16a_1^5a_{11}}{a_0^6} + \frac{16a_1a_3^5}{a_0^6} + \frac{16a_2^5a_6}{a_0^6} - \frac{16a_1^6a_{10}}{a_0^7} - \frac{16a_2^6a_4}{a_0^7} + \frac{16a_1^7a_9}{a_0^8} - \\
\frac{16a_1^8a_8}{a_0^9} + \frac{16a_1^9a_7}{a_0^{10}} - \frac{16a_1^{10}a_6}{a_0^{11}} + \frac{16a_1^{11}a_5}{a_0^{12}} - \frac{16a_1^{12}a_4}{a_0^{13}} + \frac{16a_1^{13}a_3}{a_0^{14}} - \frac{16a_1^{14}a_2}{a_0^{15}} + \frac{24a_1^2a_7^2}{a_0^4} + \\
\frac{24a_2^2a_6^2}{a_0^4} + \frac{24a_3^2a_5^2}{a_0^4} - \frac{32a_2^2a_4^3}{a_0^5} - \frac{32a_2^3a_5^2}{a_0^5} + \frac{40a_4^4a_6^2}{a_0^6} + \frac{40a_2^2a_3^4}{a_0^6} + \frac{40a_2^4a_4^2}{a_0^6} - \frac{48a_2^5a_3^2}{a_0^7} + \\
\frac{56a_1^6a_5^2}{a_0^8} - \frac{64a_1^2a_7^2}{a_0^9} + \frac{72a_1^8a_4^2}{a_0^{10}} + \frac{88a_1^{10}a_3^2}{a_0^{12}} + \frac{104a_1^{12}a_2^2}{a_0^{14}} - \frac{80a_1^4a_3^3}{a_0^7} + \frac{192a_1^7a_3^3}{a_0^{10}} - \frac{352a_1^{10}a_2^3}{a_0^{13}} + \\
\frac{140a_1^4a_3^4}{a_0^8} + \frac{336a_1^4a_2^6}{a_0^{10}} + \frac{660a_1^8a_2^4}{a_0^{12}} - \frac{672a_1^6a_2^5}{a_0^{11}} - \frac{32a_1a_2a_{13}}{a_0^3} - \frac{32a_1a_3a_{12}}{a_0^3} - \frac{32a_1a_4a_{11}}{a_0^3} - \\
\frac{32a_1a_5a_{10}}{a_0^3} - \frac{32a_1a_6a_9}{a_0^3} - \frac{32a_1a_7a_8}{a_0^3} - \frac{32a_2a_3a_{11}}{a_0^3} - \frac{32a_2a_4a_{10}}{a_0^3} - \frac{32a_2a_5a_9}{a_0^3} - \\
\frac{32a_2a_6a_8}{a_0^3} - \frac{32a_3a_4a_9}{a_0^3} - \frac{32a_3a_5a_8}{a_0^3} - \frac{32a_3a_6a_7}{a_0^3} - \frac{32a_4a_5a_7}{a_0^3} + \frac{48a_1^2a_2a_{12}}{a_0^4} + \\
\frac{48a_1^2a_3a_{11}}{a_0^4} + \frac{48a_1^2a_4a_{10}}{a_0^4} + \frac{48a_1^2a_5a_9}{a_0^4} + \frac{48a_1^2a_6a_8}{a_0^4} + \frac{48a_1a_3a_6^2}{a_0^4} + \frac{48a_1a_2^2a_{11}}{a_0^4} + \\
\frac{48a_1a_3^2a_9}{a_0^4} + \frac{48a_1a_4^2a_7}{a_0^4} + \frac{48a_2^2a_3a_9}{a_0^4} + \frac{48a_2^2a_4a_8}{a_0^4} + \frac{48a_2^2a_5a_7}{a_0^4} + \frac{48a_2a_3^2a_8}{a_0^4} + \frac{48a_3^2a_4a_6}{a_0^4} + \\
\frac{48a_2a_4^2a_6}{a_0^4} + \frac{48a_3a_4^2a_5}{a_0^4} + \frac{48a_2a_4a_5^2}{a_0^4} - \frac{64a_1^3a_2a_{11}}{a_0^5} - \frac{64a_1^3a_3a_{10}}{a_0^5} - \frac{64a_1^3a_4a_9}{a_0^5}$$

$$\begin{aligned}
& \frac{64a_1^3a_5a_8}{a_0^5} - \frac{64a_1^3a_6a_7}{a_0^5} - \frac{64a_1a_3a_4^3}{a_0^5} - \frac{64a_1a_2^3a_9}{a_0^5} - \frac{64a_1a_3^3a_6}{a_0^5} - \frac{64a_2^3a_3a_7}{a_0^5} - \frac{64a_2^3a_4a_6}{a_0^5} - \\
& \frac{64a_2a_3^3a_5}{a_0^5} + \frac{80a_1^4a_2a_{10}}{a_0^6} + \frac{80a_1^4a_3a_9}{a_0^6} + \frac{80a_1^4a_4a_8}{a_0^6} + \frac{80a_1^4a_5a_7}{a_0^6} + \frac{80a_1a_2^4a_7}{a_0^6} + \frac{80a_2^4a_3a_5}{a_0^6} - \\
& \frac{96a_1^5a_2a_9}{a_0^7} - \frac{96a_1^5a_3a_8}{a_0^7} - \frac{96a_1^5a_4a_7}{a_0^7} - \frac{96a_1^5a_5a_6}{a_0^7} - \frac{96a_1a_2^5a_5}{a_0^7} + \frac{112a_1^6a_2a_8}{a_0^8} + \\
& \frac{112a_1^6a_3a_7}{a_0^8} + \frac{112a_1^6a_4a_6}{a_0^8} + \frac{112a_1a_2^6a_3}{a_0^8} - \frac{128a_1^7a_2a_7}{a_0^9} - \frac{128a_1^7a_3a_6}{a_0^9} - \frac{128a_1^7a_4a_5}{a_0^9} + \\
& \frac{144a_1^8a_2a_6}{a_0^{10}} + \frac{144a_1^8a_3a_5}{a_0^{10}} - \frac{160a_1^9a_2a_5}{a_0^{11}} - \frac{160a_1^9a_3a_4}{a_0^{11}} + \frac{176a_1^{10}a_2a_4}{a_0^{12}} - \frac{192a_1^{11}a_2a_3}{a_0^{13}} - \\
& \frac{96a_1^2a_2^2a_{10}}{a_0^5} - \frac{96a_1^2a_3^2a_8}{a_0^5} - \frac{96a_1^2a_4^2a_6}{a_0^5} - \frac{96a_1^2a_2a_6^2}{a_0^5} - \frac{96a_1^2a_4a_5^2}{a_0^5} - \frac{96a_2^2a_3^2a_6}{a_0^5} - \frac{96a_2a_3^2a_4^2}{a_0^5} + \\
& \frac{160a_1^3a_2^2a_9}{a_0^6} + \frac{160a_1^3a_3^2a_7}{a_0^6} + \frac{160a_1^3a_4^2a_5}{a_0^6} + \frac{160a_1^3a_3a_5^2}{a_0^6} + \frac{160a_1^2a_2a_4^3}{a_0^6} + \frac{160a_1^2a_2^3a_8}{a_0^6} + \\
& \frac{160a_1^2a_3^3a_5}{a_0^6} + \frac{160a_2^3a_3^2a_4}{a_0^6} - \frac{240a_1^4a_2^2a_8}{a_0^7} - \frac{240a_1^4a_3^2a_6}{a_0^7} - \frac{240a_1^4a_2a_5^2}{a_0^7} - \frac{240a_1^2a_2a_3^4}{a_0^7} - \\
& \frac{240a_1^2a_2^4a_6}{a_0^7} + \frac{336a_1^5a_2^2a_7}{a_0^8} + \frac{336a_1^5a_3^2a_5}{a_0^8} + \frac{336a_1^5a_3a_4^2}{a_0^8} + \frac{336a_1^2a_5^2a_4}{a_0^8} - \frac{448a_1^6a_2^2a_6}{a_0^9} - \\
& \frac{448a_1^6a_3^2a_4}{a_0^9} - \frac{448a_1^6a_2a_4^2}{a_0^9} + \frac{576a_1^7a_2^2a_5}{a_0^{10}} - \frac{720a_1^8a_2^2a_4}{a_0^{11}} - \frac{720a_1^9a_2a_3^2}{a_0^{11}} + \frac{880a_1^9a_2^2a_3}{a_0^{12}} - \\
& \frac{320a_1^3a_2^3a_7}{a_0^7} - \frac{320a_1^3a_3^3a_4}{a_0^7} - \frac{320a_1a_2^3a_3^3}{a_0^7} + \frac{560a_1^4a_2^3a_6}{a_0^8} + \frac{560a_1^3a_2^4a_5}{a_0^8} - \frac{896a_1^5a_2^3a_5}{a_0^9} - \\
& \frac{896a_1^5a_2a_3^3}{a_0^9} - \frac{896a_1^3a_5^2a_3}{a_0^9} + \frac{1344a_1^6a_2^3a_4}{a_0^{10}} - \frac{1920a_1^7a_2^3a_3}{a_0^{11}} - \frac{1120a_1^4a_2^4a_4}{a_0^9} + \frac{2016a_1^5a_2^4a_3}{a_0^{10}} + \\
& \frac{240a_1^2a_2^2a_5^2}{a_0^6} + \frac{240a_1^2a_3^2a_4^2}{a_0^6} - \frac{480a_1^2a_2^3a_4^2}{a_0^7} + \frac{840a_1^2a_4^2a_3^2}{a_0^8} + \frac{840a_1^4a_2^2a_4^2}{a_0^8} + \frac{2016a_1^6a_2^2a_3^2}{a_0^{10}} + \\
& \frac{1120a_1^3a_2^2a_3^3}{a_0^8} - \frac{2240a_1^4a_2^3a_3^2}{a_0^9} + \frac{96a_1a_2a_3a_{10}}{a_0^4} + \frac{96a_1a_2a_4a_9}{a_0^4} + \frac{96a_1a_2a_5a_8}{a_0^4} + \\
& \frac{96a_1a_2a_6a_7}{a_0^4} + \frac{96a_1a_3a_4a_8}{a_0^4} + \frac{96a_1a_3a_5a_7}{a_0^4} + \frac{96a_1a_4a_5a_6}{a_0^4} + \frac{96a_2a_3a_4a_7}{a_0^4} + \frac{96a_2a_3a_5a_6}{a_0^4} - \\
& \frac{192a_1^2a_2a_3a_9}{a_0^5} - \frac{192a_1^2a_2a_4a_8}{a_0^5} - \frac{192a_1^2a_2a_5a_7}{a_0^5} - \frac{192a_1^2a_3a_4a_7}{a_0^5} - \frac{192a_1^2a_3a_5a_6}{a_0^5} - \\
& \frac{192a_1a_2^2a_3a_8}{a_0^5} - \frac{192a_1a_2^2a_4a_7}{a_0^5} - \frac{192a_1a_2^2a_5a_6}{a_0^5} - \frac{192a_1a_2a_3^2a_7}{a_0^5} - \frac{192a_1a_2a_4a_5}{a_0^5} - \\
& \frac{192a_1a_2a_4^2a_5}{a_0^5} - \frac{192a_1a_2a_3a_5^2}{a_0^5} - \frac{192a_2^2a_3a_4a_5}{a_0^5} + \frac{320a_1^3a_2a_3a_8}{a_0^6} + \frac{320a_1^3a_2a_4a_7}{a_0^6} + \\
& \frac{320a_1^3a_2a_5a_6}{a_0^6} + \frac{320a_1^3a_3a_4a_6}{a_0^6} + \frac{320a_1^3a_2a_3a_6}{a_0^6} + \frac{320a_1a_2^3a_4a_5}{a_0^6} + \frac{320a_1a_2a_3^3a_4}{a_0^6} - \\
& \frac{480a_1^4a_2a_3a_7}{a_0^7} - \frac{480a_1^4a_2a_4a_6}{a_0^7} - \frac{480a_1^4a_3a_4a_5}{a_0^7} - \frac{480a_1a_2^4a_3a_4}{a_0^7} + \frac{672a_1^5a_2a_3a_6}{a_0^8} + \\
& \frac{672a_1^5a_2a_4a_5}{a_0^8} - \frac{896a_1^6a_2a_3a_5}{a_0^9} + \frac{1152a_1^7a_2a_3a_4}{a_0^{10}} + \frac{480a_1^2a_2^2a_3a_7}{a_0^6} + \frac{480a_1^2a_2a_4a_6}{a_0^6} + \\
& \frac{480a_1^2a_2a_3^2a_6}{a_0^6} + \frac{480a_1a_2^2a_3^2a_5}{a_0^6} + \frac{480a_1a_2^2a_3a_4^2}{a_0^7} - \frac{960a_1^3a_2^2a_3a_6}{a_0^7} - \frac{960a_1^3a_2^2a_4a_5}{a_0^7} - \\
& \frac{960a_1^3a_2a_3^2a_5}{a_0^7} - \frac{960a_1^3a_2a_3a_4^2}{a_0^7} - \frac{960a_1^2a_2^3a_3a_5}{a_0^8} + \frac{1680a_1^4a_2^2a_3a_5}{a_0^8} + \frac{1680a_1^4a_2a_3^2a_4}{a_0^8} - \\
& \frac{2688a_1^5a_2^2a_3a_4}{a_0^9} + \frac{2240a_1^3a_2^3a_3a_4}{a_0^8} - \frac{1440a_1^2a_2^2a_3^2a_4}{a_0^7} - \frac{384a_1a_2a_3a_4a_6}{a_0^5} + \frac{960a_1^2a_2a_3a_4a_5}{a_0^6}
\end{aligned}$$

$$\begin{aligned}
\sum_{k=1}^n \frac{1}{z_k^{17}} = & -\frac{17a_{17}}{a_0} - \frac{a_1^{17}}{a_0^{17}} + \frac{17a_1a_{16}}{a_0^2} + \frac{17a_2a_{15}}{a_0^2} + \frac{17a_3a_{14}}{a_0^2} + \frac{17a_4a_{13}}{a_0^2} + \frac{17a_5a_{12}}{a_0^2} + \\
& \frac{17a_6a_{11}}{a_0^2} + \frac{17a_7a_{10}}{a_0^2} + \frac{17a_8a_9}{a_0^2} - \frac{17a_1^2a_{15}}{a_0^3} - \frac{17a_1a_8^2}{a_0^3} - \frac{17a_5a_6^2}{a_0^3} - \frac{17a_2^2a_{13}}{a_0^3} - \frac{17a_3^2a_{11}}{a_0^3} - \\
& \frac{17a_4^2a_9}{a_0^3} - \frac{17a_5^2a_7}{a_0^3} - \frac{17a_3a_7^2}{a_0^3} + \frac{17a_1^3a_{14}}{a_0^4} + \frac{17a_2^3a_{11}}{a_0^4} + \frac{17a_3^3a_8}{a_0^4} + \frac{17a_4^3a_5}{a_0^4} + \frac{17a_2a_5^3}{a_0^4} - \\
& \frac{17a_1^4a_{13}}{a_0^5} - \frac{17a_1a_4^4}{a_0^5} - \frac{17a_2^4a_9}{a_0^5} - \frac{17a_3^4a_5}{a_0^5} + \frac{17a_1^5a_{12}}{a_0^6} + \frac{17a_2a_5^5}{a_0^6} + \frac{17a_2^5a_7}{a_0^6} - \frac{17a_1^6a_{11}}{a_0^6} - \\
& \frac{17a_2^6a_5}{a_0^7} + \frac{17a_7a_{10}}{a_0^8} + \frac{17a_2^7a_3}{a_0^8} - \frac{17a_8a_9}{a_0^9} - \frac{17a_1a_2^8}{a_0^9} + \frac{17a_9a_8}{a_0^{10}} - \frac{17a_1^{10}a_7}{a_0^{11}} + \frac{17a_1^{11}a_6}{a_0^{12}} - \\
& \frac{17a_1^{12}a_5}{a_0^{13}} + \frac{17a_1^{13}a_4}{a_0^{14}} - \frac{17a_1^{14}a_3}{a_0^{15}} + \frac{17a_1^{15}a_2}{a_0^{16}} - \frac{34a_1^3a_7^2}{a_0^5} - \frac{34a_3^3a_4^2}{a_0^5} - \frac{34a_1^2a_5^3}{a_0^5} - \frac{51a_1^5a_6^2}{a_0^7} - \\
& \frac{51a_1^2a_3^5}{a_0^7} - \frac{68a_1^7a_5^2}{a_0^9} - \frac{85a_1^9a_4^2}{a_0^{11}} - \frac{102a_1^{11}a_3^2}{a_0^{13}} - \frac{119a_1^{13}a_2^2}{a_0^{15}} - \frac{85a_2^4a_3^3}{a_0^7} + \frac{119a_1^5a_4^3}{a_0^8} + \frac{204a_1^3a_2^7}{a_0^{10}} - \\
& \frac{255a_1^8a_3^3}{a_0^{11}} + \frac{442a_1^{11}a_2^3}{a_0^{14}} - \frac{238a_1^5a_3^4}{a_0^9} - \frac{935a_1^9a_2^4}{a_0^{13}} - \frac{714a_1^5a_2^6}{a_0^{11}} + \frac{1122a_1^7a_2^5}{a_0^{12}} - \frac{34a_1a_2a_{14}}{a_0^3} - \\
& \frac{34a_1a_3a_{13}}{a_0^3} - \frac{34a_1a_4a_{12}}{a_0^3} - \frac{34a_1a_5a_{11}}{a_0^3} - \frac{34a_1a_6a_{10}}{a_0^3} - \frac{34a_1a_7a_9}{a_0^3} - \frac{34a_2a_3a_{12}}{a_0^3} - \\
& \frac{34a_2a_4a_{11}}{a_0^3} - \frac{34a_2a_5a_{10}}{a_0^3} - \frac{34a_2a_6a_9}{a_0^3} - \frac{34a_2a_7a_8}{a_0^3} - \frac{34a_3a_4a_{10}}{a_0^3} - \frac{34a_3a_5a_9}{a_0^3} - \\
& \frac{34a_3a_6a_8}{a_0^3} - \frac{34a_4a_5a_8}{a_0^3} - \frac{34a_4a_6a_7}{a_0^3} + \frac{51a_1^2a_2a_{13}}{a_0^4} + \frac{51a_1^2a_3a_{12}}{a_0^4} + \frac{51a_1^2a_4a_{11}}{a_0^4} + \\
& \frac{51a_1^2a_5a_{10}}{a_0^4} + \frac{51a_1^2a_6a_9}{a_0^4} + \frac{51a_1^2a_7a_8}{a_0^4} + \frac{51a_1a_4a_6^2}{a_0^4} + \frac{51a_1a_2^2a_{12}}{a_0^4} + \frac{51a_1a_3^2a_{10}}{a_0^4} + \\
& \frac{51a_1a_4^2a_8}{a_0^4} + \frac{51a_1a_5a_6}{a_0^4} + \frac{51a_1a_2a_7^2}{a_0^4} + \frac{51a_2^2a_3a_{10}}{a_0^4} + \frac{51a_2^2a_4a_9}{a_0^4} + \frac{51a_2^2a_5a_8}{a_0^4} + \frac{51a_2^2a_6a_7}{a_0^4} + \\
& \frac{51a_2a_3^2a_9}{a_0^4} + \frac{51a_3^2a_4a_7}{a_0^4} + \frac{51a_3^2a_5a_6}{a_0^4} + \frac{51a_2a_4^2a_7}{a_0^4} + \frac{51a_3a_4^2a_6}{a_0^4} + \frac{51a_3a_4a_5^2}{a_0^4} - \frac{68a_1^3a_2a_{12}}{a_0^5} - \\
& \frac{68a_1^3a_3a_{11}}{a_0^5} - \frac{68a_1^3a_4a_{10}}{a_0^5} - \frac{68a_1^3a_5a_9}{a_0^5} - \frac{68a_1^3a_6a_8}{a_0^5} - \frac{68a_1a_3^2a_{10}}{a_0^5} - \frac{68a_1a_3^3a_7}{a_0^5} - \\
& \frac{68a_1a_2a_4^3}{a_0^5} - \frac{68a_2^3a_3a_8}{a_0^5} - \frac{68a_2^3a_4a_7}{a_0^5} - \frac{68a_2^3a_5a_6}{a_0^5} - \frac{68a_2a_3^3a_6}{a_0^5} - \frac{68a_2a_3a_4^3}{a_0^5} + \frac{85a_1^4a_2a_{11}}{a_0^6} + \\
& \frac{85a_1^4a_3a_{10}}{a_0^6} + \frac{85a_1^4a_4a_9}{a_0^6} + \frac{85a_1^4a_5a_8}{a_0^6} + \frac{85a_1^4a_6a_7}{a_0^6} + \frac{85a_1a_2^4a_8}{a_0^6} + \frac{85a_1a_3^4a_4}{a_0^6} + \frac{85a_2^4a_3a_6}{a_0^6} + \\
& \frac{85a_2^4a_4a_5}{a_0^6} - \frac{102a_1^5a_2a_{10}}{a_0^6} - \frac{102a_1^5a_3a_9}{a_0^6} - \frac{102a_1^5a_4a_8}{a_0^6} - \frac{102a_1^5a_5a_7}{a_0^6} - \frac{102a_1a_5^2a_6}{a_0^7} - \\
& \frac{102a_2^5a_3a_4}{a_0^7} + \frac{119a_1^6a_2a_9}{a_0^8} + \frac{119a_1^6a_3a_8}{a_0^8} + \frac{119a_1^6a_4a_7}{a_0^8} + \frac{119a_1^6a_5a_6}{a_0^8} + \frac{119a_1a_2^6a_4}{a_0^8} - \\
& \frac{136a_1^7a_2a_8}{a_0^9} - \frac{136a_1^7a_3a_7}{a_0^9} - \frac{136a_1^7a_4a_6}{a_0^9} + \frac{153a_1^8a_2a_7}{a_0^{10}} + \frac{153a_1^8a_3a_6}{a_0^{10}} + \frac{153a_1^8a_4a_5}{a_0^{10}} - \\
& \frac{170a_1^9a_2a_6}{a_0^{11}} - \frac{170a_1^9a_3a_5}{a_0^{11}} + \frac{187a_1^{10}a_2a_5}{a_0^{12}} + \frac{187a_1^{10}a_3a_4}{a_0^{12}} - \frac{204a_1^{11}a_2a_4}{a_0^{13}} + \frac{221a_1^{12}a_2a_3}{a_0^{14}} - \\
& \frac{102a_1^2a_3a_6^2}{a_0^5} - \frac{102a_1^2a_2^2a_{11}}{a_0^5} - \frac{102a_1^2a_3^2a_9}{a_0^5} - \frac{102a_1^2a_4^2a_7}{a_0^5} - \frac{102a_1a_2^2a_6^2}{a_0^5} - \frac{102a_1a_3^2a_5^2}{a_0^5} - \\
& \frac{102a_2^2a_3^2a_7}{a_0^5} - \frac{102a_2^2a_4^2a_5}{a_0^5} - \frac{102a_2^2a_3a_5^2}{a_0^5} + \frac{170a_1^3a_2^2a_{10}}{a_0^6} + \frac{170a_1^3a_3^2a_8}{a_0^6} + \frac{170a_1^3a_4^2a_6}{a_0^6} + \\
& \frac{170a_1^3a_4a_5^2}{a_0^6} + \frac{170a_1^3a_2a_6^2}{a_0^6} + \frac{170a_1a_2^2a_4^3}{a_0^6} + \frac{170a_1a_2^3a_5^2}{a_0^6} + \frac{170a_1^2a_3a_4^3}{a_0^6} + \frac{170a_1^2a_2^3a_9}{a_0^6} +
\end{aligned}$$

$$\begin{aligned}
& \frac{170a_1^2a_3^3a_6}{a_0^6} + \frac{170a_2^3a_3^2a_5}{a_0^6} + \frac{170a_2^3a_3a_4^2}{a_0^6} + \frac{170a_2^2a_3^3a_4}{a_0^6} - \frac{255a_1^4a_2^2a_9}{a_0^7} - \frac{255a_1^4a_3^2a_7}{a_0^7} \\
& - \frac{255a_1^4a_4^2a_5}{a_0^7} - \frac{255a_1^4a_3a_5^2}{a_0^7} - \frac{255a_1^2a_2^4a_7}{a_0^7} - \frac{255a_1a_2^2a_3^4}{a_0^7} - \frac{255a_1a_2^4a_4^2}{a_0^7} + \frac{357a_1^5a_2^2a_8}{a_0^8} + \\
& \frac{357a_1^5a_3^2a_6}{a_0^8} + \frac{357a_1^5a_2a_5^2}{a_0^8} + \frac{357a_1^2a_2^5a_5}{a_0^8} + \frac{357a_1a_2^5a_3^2}{a_0^8} - \frac{476a_1^6a_2^2a_7}{a_0^9} - \frac{476a_1^6a_3^2a_5}{a_0^9} \\
& - \frac{476a_1^6a_3a_4^2}{a_0^9} - \frac{476a_1^2a_2^6a_3}{a_0^9} + \frac{612a_1^7a_2^2a_6}{a_0^{10}} + \frac{612a_1^7a_3^2a_4}{a_0^{10}} + \frac{612a_1^7a_2a_4^2}{a_0^{10}} - \frac{765a_1^8a_2^2a_5}{a_0^{11}} + \\
& \frac{935a_1^9a_2^2a_4}{a_0^{12}} + \frac{935a_1^9a_2a_3^2}{a_0^{12}} - \frac{1122a_1^{10}a_2^2a_3}{a_0^{13}} - \frac{340a_1^3a_2a_4^3}{a_0^7} - \frac{340a_1^3a_3^2a_8}{a_0^7} - \frac{340a_1^3a_3^3a_5}{a_0^7} + \\
& \frac{595a_1^4a_2^3a_7}{a_0^8} + \frac{595a_1^4a_3^3a_4}{a_0^8} + \frac{595a_1^3a_2a_4^4}{a_0^8} + \frac{595a_1^3a_2^4a_6}{a_0^8} - \frac{952a_1^5a_2^3a_6}{a_0^9} - \frac{952a_1^3a_2^5a_4}{a_0^9} + \\
& \frac{1428a_1^6a_2^3a_5}{a_0^{10}} + \frac{1428a_1^6a_2a_3^3}{a_0^{10}} - \frac{2040a_1^7a_3^2a_4}{a_0^{11}} + \frac{2805a_1^8a_2^3a_3}{a_0^{12}} - \frac{1190a_1^4a_2^4a_5}{a_0^9} + \\
& \frac{2142a_1^5a_2^4a_4}{a_0^{10}} + \frac{2142a_1^4a_2^5a_3}{a_0^{10}} - \frac{3570a_1^6a_2^4a_3}{a_0^{11}} - \frac{510a_1^3a_2^2a_5^2}{a_0^7} - \frac{510a_1^3a_3^2a_4^2}{a_0^7} + \frac{1190a_1^3a_2^3a_4^2}{a_0^8} + \\
& \frac{1190a_1^2a_2^3a_3^3}{a_0^8} - \frac{2380a_1^3a_2^4a_3^2}{a_0^9} - \frac{1428a_1^5a_2^2a_4^2}{a_0^9} - \frac{3060a_1^7a_2^2a_3^2}{a_0^{11}} - \frac{2380a_1^4a_2^2a_3^3}{a_0^9} + \\
& \frac{4284a_1^5a_2^3a_3^2}{a_0^{10}} + \frac{102a_1a_2a_3a_{11}}{a_0^4} + \frac{102a_1a_2a_4a_{10}}{a_0^4} + \frac{102a_1a_2a_5a_9}{a_0^4} + \frac{102a_1a_2a_6a_8}{a_0^4} + \\
& \frac{102a_1a_3a_4a_9}{a_0^4} + \frac{102a_1a_3a_5a_8}{a_0^4} + \frac{102a_1a_3a_6a_7}{a_0^4} + \frac{102a_1a_4a_5a_7}{a_0^4} + \frac{102a_2a_3a_4a_8}{a_0^4} + \\
& \frac{102a_2a_3a_5a_7}{a_0^4} + \frac{102a_2a_4a_5a_6}{a_0^4} - \frac{204a_1^2a_2a_3a_{10}}{a_0^5} - \frac{204a_1^2a_2a_4a_9}{a_0^5} - \frac{204a_1^2a_2a_5a_8}{a_0^5} - \\
& \frac{204a_1^2a_2a_6a_7}{a_0^5} - \frac{204a_1^2a_3a_4a_8}{a_0^5} - \frac{204a_1^2a_3a_5a_7}{a_0^5} - \frac{204a_1^2a_4a_5a_6}{a_0^5} - \frac{204a_1a_2^2a_3a_9}{a_0^5} - \\
& \frac{204a_1a_2^2a_4a_8}{a_0^5} - \frac{204a_1a_2^2a_5a_7}{a_0^5} - \frac{204a_1a_2a_3^2a_8}{a_0^5} - \frac{204a_1a_3^2a_4a_6}{a_0^5} - \frac{204a_1a_2a_4^2a_6}{a_0^5} - \\
& \frac{204a_1a_3a_4^2a_5}{a_0^5} - \frac{204a_1a_2a_4a_5^2}{a_0^5} - \frac{204a_2^2a_3a_4a_6}{a_0^5} - \frac{204a_2a_3^2a_4a_5}{a_0^5} + \frac{340a_1^3a_2a_3a_9}{a_0^6} + \\
& \frac{340a_1^3a_2a_4a_8}{a_0^6} + \frac{340a_1^3a_2a_5a_7}{a_0^6} + \frac{340a_1^3a_3a_4a_7}{a_0^6} + \frac{340a_1^3a_3a_5a_6}{a_0^6} + \frac{340a_1a_2^3a_3a_7}{a_0^6} + \\
& \frac{340a_1a_2^3a_4a_6}{a_0^6} + \frac{340a_1a_2a_3^3a_5}{a_0^6} - \frac{510a_1^4a_2a_3a_8}{a_0^7} - \frac{510a_1^4a_2a_4a_7}{a_0^7} - \frac{510a_1^4a_2a_5a_6}{a_0^7} - \\
& \frac{510a_1^4a_3a_4a_6}{a_0^7} - \frac{510a_1a_2^4a_3a_5}{a_0^7} + \frac{714a_1^5a_2a_3a_7}{a_0^8} + \frac{714a_1^5a_2a_4a_6}{a_0^8} + \frac{714a_1^5a_3a_4a_5}{a_0^8} - \\
& \frac{952a_1^6a_2a_3a_6}{a_0^9} - \frac{952a_1^6a_2a_4a_5}{a_0^9} + \frac{1224a_1^7a_2a_3a_5}{a_0^{10}} - \frac{1530a_1^8a_2a_3a_4}{a_0^{11}} + \frac{510a_1^2a_2^2a_3a_8}{a_0^6} + \\
& \frac{510a_2^2a_2a_4a_7}{a_0^6} + \frac{510a_1^2a_2^2a_5a_6}{a_0^6} + \frac{510a_1^2a_2a_3^2a_7}{a_0^6} + \frac{510a_1^2a_3^2a_4a_5}{a_0^6} + \frac{510a_1^2a_2a_4^2a_5}{a_0^6} + \\
& \frac{510a_1^2a_2a_3a_5^2}{a_0^6} + \frac{510a_1a_2^2a_3^2a_6}{a_0^6} + \frac{510a_1a_2a_3^2a_4^2}{a_0^6} - \frac{1020a_1^3a_2^2a_3a_7}{a_0^7} - \frac{1020a_1^3a_2^2a_4a_6}{a_0^7} - \\
& \frac{1020a_1^3a_2a_3^2a_6}{a_0^7} - \frac{1020a_1^2a_2^3a_3a_6}{a_0^7} - \frac{1020a_1^2a_2a_3^3a_5}{a_0^7} - \frac{1020a_1a_2^3a_3^2a_4}{a_0^7} - \frac{1020a_1a_2^3a_3a_5^2}{a_0^7} + \\
& \frac{1785a_1^4a_2^2a_3a_6}{a_0^8} + \frac{1785a_1^4a_2^2a_4a_5}{a_0^8} + \frac{1785a_1^4a_2a_3^2a_5}{a_0^8} + \frac{1785a_1^4a_2a_3a_4^2}{a_0^8} + \frac{1785a_1^2a_2^4a_3a_4}{a_0^8} - \\
& \frac{2856a_1^5a_2^2a_3a_5}{a_0^9} - \frac{2856a_1^5a_2a_3^2a_4}{a_0^9} + \frac{4284a_1^6a_2^2a_3a_4}{a_0^{10}} + \frac{2380a_1^3a_2^3a_3a_5}{a_0^8} - \frac{4760a_1^4a_2^3a_3a_4}{a_0^9}
\end{aligned}$$

$$\begin{aligned}
& \frac{1530a_1^2a_2^2a_3^2a_5}{a_0^7} - \frac{1530a_1^2a_2^2a_3a_4^2}{a_0^7} + \frac{3570a_1^3a_2^2a_3^2a_4}{a_0^8} - \frac{408a_1a_2a_3a_4a_7}{a_0^5} - \frac{408a_1a_2a_3a_5a_6}{a_0^5} + \\
& \frac{1020a_1^2a_2a_3a_4a_6}{a_0^6} + \frac{1020a_1a_2^2a_3a_4a_5}{a_0^6} - \frac{2040a_1^3a_2a_3a_4a_5}{a_0^7} \\
& \sum_{k=1}^n \frac{1}{z_k^{18}} = -\frac{18a_{18}}{a_0} + \frac{9a_9^2}{a_0^2} - \frac{6a_6^3}{a_0^3} + \frac{3a_3^6}{a_0^6} - \frac{2a_2^9}{a_0^9} + \frac{a_1^{18}}{a_0^{18}} + \frac{18a_1a_{17}}{a_0^2} + \frac{18a_2a_{16}}{a_0^2} + \\
& \frac{18a_3a_{15}}{a_0^2} + \frac{18a_4a_{14}}{a_0^2} + \frac{18a_5a_{13}}{a_0^2} + \frac{18a_6a_{12}}{a_0^2} + \frac{18a_7a_{11}}{a_0^2} + \frac{18a_8a_{10}}{a_0^2} - \frac{18a_1^2a_{16}}{a_0^3} - \frac{18a_2a_8^2}{a_0^3} - \\
& \frac{18a_2^2a_{14}}{a_0^3} - \frac{18a_3^2a_{12}}{a_0^3} - \frac{18a_4^2a_{10}}{a_0^3} - \frac{18a_5^2a_8}{a_0^3} - \frac{18a_4a_7^2}{a_0^3} + \frac{18a_3^3a_{15}}{a_0^4} + \frac{18a_2^3a_{12}}{a_0^4} + \frac{18a_3^3a_9}{a_0^4} + \\
& \frac{18a_4^3a_6}{a_0^4} + \frac{18a_3a_5^3}{a_0^4} - \frac{18a_1^4a_{14}}{a_0^5} - \frac{18a_2a_4^4}{a_0^5} - \frac{18a_4^2a_{10}}{a_0^5} - \frac{18a_3^4a_6}{a_0^5} + \frac{18a_5^5a_{13}}{a_0^6} + \frac{18a_2^5a_8}{a_0^6} - \\
& \frac{18a_1^6a_{12}}{a_0^7} - \frac{18a_2^6a_6}{a_0^7} + \frac{18a_1^7a_{11}}{a_0^8} + \frac{18a_2^7a_4}{a_0^8} - \frac{18a_1^8a_{10}}{a_0^9} + \frac{18a_1^9a_9}{a_0^{10}} - \frac{18a_1^{10}a_8}{a_0^{11}} + \frac{18a_1^{11}a_7}{a_0^{12}} - \\
& \frac{18a_1^{12}a_6}{a_0^{13}} + \frac{18a_1^{13}a_5}{a_0^{14}} - \frac{18a_1^{14}a_4}{a_0^{15}} + \frac{18a_1^{15}a_3}{a_0^{16}} - \frac{18a_1^{16}a_2}{a_0^{17}} + \frac{27a_1^2a_8^2}{a_0^4} + \frac{27a_2^2a_7^2}{a_0^4} + \frac{27a_3^2a_6^2}{a_0^4} + \\
& \frac{27a_4^2a_5^2}{a_0^4} - \frac{36a_2^3a_6^2}{a_0^5} - \frac{36a_2^3a_4^3}{a_0^5} + \frac{45a_4^4a_7^2}{a_0^6} + \frac{45a_2^2a_4^4}{a_0^6} + \frac{45a_2^4a_5^2}{a_0^6} - \frac{54a_2^5a_4^2}{a_0^7} + \frac{63a_1^6a_6^2}{a_0^8} + \\
& \frac{63a_2^6a_3^2}{a_0^8} + \frac{81a_1^8a_5^2}{a_0^{10}} + \frac{81a_1^2a_2^8}{a_0^{10}} + \frac{99a_1^{10}a_4^2}{a_0^{12}} + \frac{117a_1^{12}a_3^2}{a_0^{14}} + \frac{135a_1^{14}a_2^2}{a_0^{16}} + \frac{60a_1^3a_5^3}{a_0^6} + \frac{60a_2^3a_4^3}{a_0^6} - \\
& \frac{90a_2^3a_4^4}{a_0^7} + \frac{126a_1^3a_3^5}{a_0^8} - \frac{168a_1^6a_4^3}{a_0^9} + \frac{330a_1^9a_3^3}{a_0^{12}} - \frac{546a_1^{12}a_2^3}{a_0^{15}} + \frac{378a_1^6a_3^4}{a_0^{10}} - \frac{540a_1^4a_2^7}{a_0^{11}} + \\
& \frac{1287a_1^{10}a_2^4}{a_0^{14}} - \frac{1782a_1^8a_2^5}{a_0^{13}} + \frac{1386a_1^6a_2^6}{a_0^{12}} - \frac{36a_1a_2a_{15}}{a_0^3} - \frac{36a_1a_3a_{14}}{a_0^3} - \frac{36a_1a_4a_{13}}{a_0^3} - \\
& \frac{36a_1a_5a_{12}}{a_0^3} - \frac{36a_1a_6a_{11}}{a_0^3} - \frac{36a_1a_7a_{10}}{a_0^3} - \frac{36a_1a_8a_9}{a_0^3} - \frac{36a_2a_3a_{13}}{a_0^3} - \frac{36a_2a_4a_{12}}{a_0^3} - \\
& \frac{36a_2a_5a_{11}}{a_0^3} - \frac{36a_2a_6a_{10}}{a_0^3} - \frac{36a_2a_7a_9}{a_0^3} - \frac{36a_3a_4a_{11}}{a_0^3} - \frac{36a_3a_5a_{10}}{a_0^3} - \frac{36a_3a_6a_9}{a_0^3} - \\
& \frac{36a_3a_7a_8}{a_0^3} - \frac{36a_4a_5a_9}{a_0^3} - \frac{36a_4a_6a_8}{a_0^3} - \frac{36a_5a_6a_7}{a_0^3} + \frac{54a_1^2a_2a_{14}}{a_0^4} + \frac{54a_1^2a_3a_{13}}{a_0^4} + \\
& \frac{54a_1^2a_4a_{12}}{a_0^4} + \frac{54a_1^2a_5a_{11}}{a_0^4} + \frac{54a_1^2a_6a_{10}}{a_0^4} + \frac{54a_7a_9}{a_0^4} + \frac{54a_1a_5a_6^2}{a_0^4} + \frac{54a_1a_2^2a_{13}}{a_0^4} + \\
& \frac{54a_1a_3^2a_{11}}{a_0^4} + \frac{54a_1a_4^2a_9}{a_0^4} + \frac{54a_1a_5^2a_7}{a_0^4} + \frac{54a_1a_3a_7^2}{a_0^4} + \frac{54a_2^2a_3a_{11}}{a_0^4} + \frac{54a_2^2a_4a_{10}}{a_0^4} + \\
& \frac{54a_2^2a_5a_9}{a_0^4} + \frac{54a_2^2a_6a_8}{a_0^4} + \frac{54a_2a_3^2a_{10}}{a_0^4} + \frac{54a_3^2a_4a_8}{a_0^4} + \frac{54a_3^2a_5a_7}{a_0^4} + \frac{54a_2a_4^2a_8}{a_0^4} + \frac{54a_3a_4^2a_7}{a_0^4} + \\
& \frac{54a_2a_5^2a_6}{a_0^4} + \frac{54a_2a_4a_6^2}{a_0^4} - \frac{72a_1^3a_2a_{13}}{a_0^5} - \frac{72a_1^3a_3a_{12}}{a_0^5} - \frac{72a_1^3a_4a_{11}}{a_0^5} - \frac{72a_1^3a_5a_{10}}{a_0^5} - \\
& \frac{72a_1^3a_6a_9}{a_0^5} - \frac{72a_1^3a_7a_8}{a_0^5} - \frac{72a_1a_2^3a_{11}}{a_0^5} - \frac{72a_1a_3^3a_8}{a_0^5} - \frac{72a_1a_4^3a_5}{a_0^5} - \frac{72a_1a_2a_3^3}{a_0^5} - \frac{72a_2^3a_3a_9}{a_0^5} - \\
& \frac{72a_2^3a_4a_8}{a_0^5} - \frac{72a_2^3a_5a_7}{a_0^5} - \frac{72a_2a_3^3a_7}{a_0^5} - \frac{72a_3^3a_4a_5}{a_0^5} + \frac{90a_1^4a_2a_{12}}{a_0^6} + \frac{90a_1^4a_3a_{11}}{a_0^6} + \\
& \frac{90a_1^4a_4a_{10}}{a_0^6} + \frac{90a_1^4a_5a_9}{a_0^6} + \frac{90a_1^4a_6a_8}{a_0^6} + \frac{90a_1a_2^4a_9}{a_0^6} + \frac{90a_1a_3^4a_5}{a_0^6} + \frac{90a_2^4a_3a_7}{a_0^6} + \frac{90a_2^4a_4a_6}{a_0^6} + \\
& \frac{90a_2a_3^4a_4}{a_0^6} - \frac{108a_1^5a_2a_{11}}{a_0^7} - \frac{108a_1^5a_3a_{10}}{a_0^7} - \frac{108a_1^5a_4a_9}{a_0^7} - \frac{108a_1^5a_5a_8}{a_0^7} - \frac{108a_1^5a_6a_7}{a_0^7} - \\
& \frac{108a_1a_2a_5^2}{a_0^7} - \frac{108a_1a_2^5a_7}{a_0^7} - \frac{108a_2^5a_3a_5}{a_0^7} + \frac{126a_1^6a_2a_{10}}{a_0^8} + \frac{126a_1^6a_3a_9}{a_0^8} + \frac{126a_1^6a_4a_8}{a_0^8} +
\end{aligned}$$

$$\begin{aligned}
& \frac{126a_1^6a_5a_7}{a_0^8} + \frac{126a_1a_2^6a_5}{a_0^8} - \frac{144a_1^7a_2a_9}{a_0^9} - \frac{144a_1^7a_3a_8}{a_0^9} - \frac{144a_1^7a_4a_7}{a_0^9} - \frac{144a_1^7a_5a_6}{a_0^9} - \\
& \frac{144a_1a_2^7a_3}{a_0^9} + \frac{162a_1^8a_2a_8}{a_0^{10}} + \frac{162a_1^8a_3a_7}{a_0^{10}} + \frac{162a_1^8a_4a_6}{a_0^{10}} - \frac{180a_1^9a_2a_7}{a_0^{11}} - \frac{180a_1^9a_3a_6}{a_0^{11}} - \\
& \frac{180a_1^9a_4a_5}{a_0^{11}} + \frac{198a_1^{10}a_2a_6}{a_0^{12}} + \frac{198a_1^{10}a_3a_5}{a_0^{12}} - \frac{216a_1^{11}a_2a_5}{a_0^{13}} - \frac{216a_1^{11}a_3a_4}{a_0^{13}} + \frac{234a_1^{12}a_2a_4}{a_0^{14}} - \\
& \frac{252a_1^{13}a_2a_3}{a_0^{15}} - \frac{108a_1^2a_4a_6}{a_0^5} - \frac{108a_1^2a_2^2a_{12}}{a_0^5} - \frac{108a_1^2a_3^2a_{10}}{a_0^5} - \frac{108a_1^2a_4^2a_8}{a_0^5} - \frac{108a_1^2a_5^2a_6}{a_0^5} - \\
& \frac{108a_1^2a_2a_7}{a_0^5} - \frac{108a_1^2a_3^2a_8}{a_0^5} - \frac{108a_1^2a_4^2a_6}{a_0^5} - \frac{108a_1^2a_5^2a_5}{a_0^5} - \frac{108a_2a_3^2a_5}{a_0^5} + \frac{180a_1^3a_3a_6^2}{a_0^6} + \\
& \frac{180a_1^3a_2^2a_{11}}{a_0^6} + \frac{180a_1^3a_3^2a_9}{a_0^6} + \frac{180a_1^3a_4^2a_7}{a_0^6} + \frac{180a_1^2a_2^3a_{10}}{a_0^6} + \frac{180a_1^2a_3^3a_7}{a_0^6} + \frac{180a_1a_3^3a_4^2}{a_0^6} + \\
& \frac{180a_2^3a_3^2a_6}{a_0^6} + \frac{180a_2^2a_3^3a_5}{a_0^6} - \frac{270a_1^4a_2^2a_{10}}{a_0^7} - \frac{270a_1^4a_3^2a_8}{a_0^7} - \frac{270a_1^4a_4^2a_6}{a_0^7} - \frac{270a_1^4a_4a_5^2}{a_0^7} - \\
& \frac{270a_1^4a_2a_6^2}{a_0^7} - \frac{270a_1^2a_4^2a_8}{a_0^7} - \frac{270a_1^2a_3^4a_4}{a_0^7} - \frac{270a_2^4a_3^2a_4}{a_0^7} + \frac{378a_1^5a_2^2a_9}{a_0^8} + \frac{378a_1^5a_3^2a_7}{a_0^8} + \\
& \frac{378a_1^5a_4^2a_5}{a_0^8} + \frac{378a_1^5a_3a_5^2}{a_0^8} + \frac{378a_1^2a_5a_6}{a_0^8} - \frac{504a_1^6a_2^2a_8}{a_0^9} - \frac{504a_1^6a_3^2a_6}{a_0^9} - \frac{504a_1^6a_2a_5^2}{a_0^9} - \\
& \frac{504a_2^2a_2^6a_4}{a_0^9} + \frac{648a_1^7a_2^2a_7}{a_0^{10}} + \frac{648a_1^7a_3^2a_5}{a_0^{10}} + \frac{648a_1^7a_3a_4^2}{a_0^{10}} - \frac{810a_1^8a_2^2a_6}{a_0^{11}} - \frac{810a_1^8a_3^2a_4}{a_0^{11}} - \\
& \frac{810a_1^8a_2a_4^2}{a_0^{11}} + \frac{990a_1^9a_2^2a_5}{a_0^{12}} - \frac{1188a_1^{10}a_2^2a_4}{a_0^{13}} - \frac{1188a_1^{10}a_2a_3^2}{a_0^{13}} + \frac{1404a_1^{11}a_2^2a_3}{a_0^{14}} - \frac{360a_1^3a_3a_4^3}{a_0^7} - \\
& \frac{360a_1^3a_2^3a_9}{a_0^7} - \frac{360a_1^3a_3^3a_6}{a_0^7} + \frac{630a_1^4a_2a_4^3}{a_0^8} + \frac{630a_1^4a_2^3a_{n8}}{a_0^8} + \frac{630a_1^4a_3^3a_5}{a_0^8} + \frac{630a_1^3a_2^4a_7}{a_0^8} + \\
& \frac{630a_1a_2^4a_3^3}{a_0^8} - \frac{1008a_1^5a_2^3a_7}{a_0^9} - \frac{1008a_1^5a_3^3a_4}{a_0^9} - \frac{1008a_1^3a_2^5a_5}{a_0^9} + \frac{1512a_1^6a_2^3a_6}{a_0^{10}} + \frac{1512a_1^3a_2^6a_3}{a_0^{10}} - \\
& \frac{2160a_1^7a_2^3a_5}{a_0^{11}} - \frac{2160a_1^7a_2a_3^3}{a_0^{11}} + \frac{2970a_1^8a_2^3a_4}{a_0^{12}} - \frac{3960a_1^9a_2^3a_3}{a_0^{13}} - \frac{1260a_1^4a_2a_4^4}{a_0^9} - \\
& \frac{1260a_1^4a_2^4a_6}{a_0^9} + \frac{2268a_1^5a_2^4a_5}{a_0^{10}} + \frac{2268a_1^4a_2^5a_4}{a_0^{10}} - \frac{3780a_1^6a_2^4a_4}{a_0^{11}} + \frac{5940a_1^7a_2^4a_3}{a_0^{12}} - \\
& \frac{4536a_1^5a_2^5a_3}{a_0^{11}} + \frac{270a_1^2a_2^2a_6}{a_0^6} + \frac{270a_1^2a_3^2a_5}{a_0^6} + \frac{270a_2^2a_3^2a_4}{a_0^6} - \frac{540a_1^2a_2^2a_4^3}{a_0^7} - \frac{540a_1^2a_2^3a_5^2}{a_0^7} + \\
& \frac{945a_1^4a_2^2a_5^2}{a_0^8} + \frac{945a_1^4a_3^2a_4^2}{a_0^8} + \frac{945a_1^2a_2^2a_3^4}{a_0^8} + \frac{945a_1^2a_2^4a_4^2}{a_0^8} - \frac{1512a_1^2a_2^5a_3^2}{a_0^9} + \frac{2268a_1^6a_2^2a_4^2}{a_0^{10}} + \\
& \frac{4455a_1^8a_2^2a_3^2}{a_0^{12}} - \frac{2520a_1^4a_2^3a_4^2}{a_0^{10}} + \frac{4536a_1^5a_2^2a_3^3}{a_0^{10}} - \frac{7560a_1^6a_2^3a_3^2}{a_0^{11}} + \frac{5670a_1^4a_2^4a_3^2}{a_0^{10}} - \\
& \frac{3360a_1^3a_2^3a_3^3}{a_0^9} + \frac{108a_1a_2a_3a_{12}}{a_0^4} + \frac{108a_1a_2a_4a_{11}}{a_0^4} + \frac{108a_1a_2a_5a_{10}}{a_0^4} + \frac{108a_1a_2a_6a_9}{a_0^4} + \\
& \frac{108a_1a_2a_7a_8}{a_0^4} + \frac{108a_1a_3a_4a_{10}}{a_0^4} + \frac{108a_1a_3a_5a_9}{a_0^4} + \frac{108a_1a_3a_6a_8}{a_0^4} + \frac{108a_1a_4a_5a_8}{a_0^4} + \\
& \frac{108a_1a_4a_6a_7}{a_0^4} + \frac{108a_2a_3a_4a_9}{a_0^4} + \frac{108a_2a_3a_5a_8}{a_0^4} + \frac{108a_2a_3a_6a_7}{a_0^4} + \frac{108a_2a_4a_5a_7}{a_0^4} + \\
& \frac{108a_3a_4a_5a_6}{a_0^4} - \frac{216a_1^2a_2a_3a_{11}}{a_0^5} - \frac{216a_1^2a_2a_4a_{10}}{a_0^5} - \frac{216a_1^2a_2a_5a_9}{a_0^5} - \frac{216a_1^2a_2a_6a_8}{a_0^5} - \\
& \frac{216a_1^2a_3a_4a_9}{a_0^5} - \frac{216a_1^2a_3a_5a_8}{a_0^5} - \frac{216a_1^2a_3a_6a_7}{a_0^5} - \frac{216a_1a_2a_3^2a_9}{a_0^5} - \frac{216a_1a_3^2a_4a_7}{a_0^5} -
\end{aligned}$$

$$\begin{aligned}
& \frac{216a_1a_3^2a_5a_6}{a_0^5} - \frac{216a_1a_2a_4^2a_7}{a_0^5} - \frac{216a_1a_3a_4^2a_6}{a_0^5} - \frac{216a_1a_3a_4a_5^2}{a_0^5} - \frac{216a_1a_2a_3a_6^2}{a_0^5} - \\
& \frac{216a_2^2a_3a_4a_7}{a_0^5} - \frac{216a_2^2a_3a_{n5}a_6}{a_0^5} - \frac{216a_2a_3^2a_4a_6}{a_0^5} - \frac{216a_2a_3a_4^2a_5}{a_0^5} + \frac{360a_1^3a_2a_3a_{10}}{a_0^6} + \\
& \frac{360a_1^3a_2a_4a_9}{a_0^6} + \frac{360a_1^3a_2a_5a_8}{a_0^6} + \frac{360a_1^3a_2a_6a_7}{a_0^6} + \frac{360a_1^3a_3a_4a_8}{a_0^6} + \frac{360a_1^3a_3a_5a_7}{a_0^6} + \\
& \frac{360a_1^3a_4a_5a_6}{a_0^6} + \frac{360a_1a_2^3a_3a_8}{a_0^6} + \frac{360a_1a_2^3a_4a_7}{a_0^6} + \frac{360a_1a_2^3a_5a_6}{a_0^6} + \frac{360a_1a_2a_3^3a_6}{a_0^6} + \\
& \frac{360a_1a_2a_3a_4^3}{a_0^6} + \frac{360a_2^3a_3a_4a_5}{a_0^6} - \frac{540a_1^4a_2a_3a_9}{a_0^7} - \frac{540a_1^4a_2a_4a_8}{a_0^7} - \frac{540a_1^4a_2a_5a_7}{a_0^7} - \\
& \frac{540a_1^4a_3a_4a_7}{a_0^7} - \frac{540a_1^4a_3a_5a_6}{a_0^7} - \frac{540a_1a_2^4a_3a_6}{a_0^7} - \frac{540a_1a_2^4a_4a_5}{a_0^7} + \frac{756a_1^5a_2a_3a_8}{a_0^8} + \\
& \frac{756a_1^5a_2a_4a_7}{a_0^8} + \frac{756a_1^5a_2a_5a_6}{a_0^8} + \frac{756a_1^5a_3a_4a_6}{a_0^8} + \frac{756a_1a_2^5a_3a_4}{a_0^8} - \frac{1008a_1^6a_2a_3a_7}{a_0^9} - \\
& \frac{1008a_1^6a_2a_4a_6}{a_0^9} - \frac{1008a_1^6a_3a_4a_5}{a_0^9} + \frac{1296a_1^7a_2a_3a_6}{a_0^{10}} + \frac{1296a_1^7a_2a_4a_5}{a_0^{10}} - \frac{1620a_1^8a_2a_3a_5}{a_0^{11}} + \\
& \frac{1980a_1^9a_2a_3a_4}{a_0^{12}} + \frac{540a_1^2a_2^2a_3a_9}{a_0^6} + \frac{540a_1^2a_2^2a_4a_8}{a_0^6} + \frac{540a_1^2a_2^2a_5a_7}{a_0^6} + \frac{540a_1^2a_2a_3^2a_8}{a_0^6} + \\
& \frac{540a_1^2a_3^2a_4a_6}{a_0^6} + \frac{540a_1^2a_2a_4^2a_6}{a_0^6} + \frac{540a_1^2a_3a_4^2a_5}{a_0^6} + \frac{540a_1^2a_2a_4a_5^2}{a_0^6} + \frac{540a_1a_2^2a_3^2a_7}{a_0^6} + \\
& \frac{540a_1a_2^2a_4^2a_5}{a_0^6} + \frac{540a_1a_2^2a_3a_5^2}{a_0^6} - \frac{1080a_1^3a_2^2a_3a_8}{a_0^7} - \frac{1080a_1^3a_2^2a_4a_7}{a_0^7} - \frac{1080a_1^3a_2^2a_5a_6}{a_0^7} - \\
& \frac{1080a_1^3a_2a_3^2a_7}{a_0^7} - \frac{1080a_1^3a_3^2a_4a_5}{a_0^7} - \frac{1080a_1^3a_2a_4^2a_5}{a_0^7} - \frac{1080a_1^3a_2a_3a_5^2}{a_0^7} - \frac{1080a_1^2a_2^3a_3a_7}{a_0^7} - \\
& \frac{1080a_1^2a_3^2a_4a_6}{a_0^7} - \frac{1080a_1^2a_2a_3^3a_5}{a_0^7} - \frac{1080a_1a_2^3a_3^2a_5}{a_0^7} - \frac{1080a_1a_2^3a_3a_4^2}{a_0^7} - \frac{1080a_1a_2^2a_3^3a_4}{a_0^7} + \\
& \frac{1890a_1^4a_2^2a_3a_7}{a_0^8} + \frac{1890a_1^4a_2^2a_4a_6}{a_0^8} + \frac{1890a_1^4a_2a_3^2a_6}{a_0^8} + \frac{1890a_1^2a_2^4a_3a_5}{a_0^8} - \frac{3024a_1^5a_2^2a_3a_6}{a_0^9} - \\
& \frac{3024a_1^5a_2^2a_4a_5}{a_0^9} - \frac{3024a_1^5a_2a_3^2a_5}{a_0^9} - \frac{3024a_1^5a_2a_3a_4^2}{a_0^9} + \frac{4536a_1^6a_2^2a_3a_5}{a_0^{10}} + \frac{4536a_1^6a_2a_3^2a_4}{a_0^{10}} - \\
& \frac{6480a_1^7a_2^2a_3a_4}{a_0^{11}} + \frac{2520a_1^3a_2^3a_3a_6}{a_0^8} + \frac{2520a_1^3a_2^3a_4a_5}{a_0^8} + \frac{2520a_1^3a_2a_3^3a_4}{a_0^8} - \frac{5040a_1^4a_2^3a_3a_5}{a_0^9} - \\
& \frac{5040a_1^3a_4^2a_3a_4}{a_0^9} + \frac{9072a_1^5a_2^3a_3a_4}{a_0^{10}} - \frac{1620a_1^2a_2^2a_3^2a_6}{a_0^7} - \frac{1620a_1^2a_2a_3^2a_4^2}{a_0^7} + \frac{3780a_1^3a_2^2a_3^2a_5}{a_0^8} + \\
& \frac{3780a_1^3a_2^2a_3a_4^2}{a_0^8} + \frac{3780a_1^2a_2^3a_3^2a_4}{a_0^8} - \frac{7560a_1^4a_2^2a_3^2a_4}{a_0^9} - \frac{432a_1a_2a_3a_4a_8}{a_0^5} - \frac{432a_1a_2a_3a_5a_7}{a_0^5} - \\
& \frac{432a_1a_2a_4a_5a_6}{a_0^5} + \frac{1080a_1^2a_2a_3a_4a_7}{a_0^6} + \frac{1080a_1^2a_2a_3a_5a_6}{a_0^6} + \frac{1080a_1a_2^2a_3a_4a_6}{a_0^6} + \\
& \frac{1080a_1a_2a_3^2a_4a_5}{a_0^6} - \frac{1080a_1^3a_2a_3a_4a_6}{a_0^7} + \frac{3780a_1^4a_2a_3a_4a_5}{a_0^8} - \frac{3240a_1^2a_2^2a_3a_4a_5}{a_0^7} \\
& \sum_{k=1}^n \frac{1}{z_k^{19}} = -\frac{19a_{19}}{a_0} - \frac{a_1^{19}}{a_0^{19}} + \frac{19a_1a_{18}}{a_0^2} + \frac{19a_2a_{17}}{a_0^2} + \frac{19a_3a_{16}}{a_0^2} + \frac{19a_4a_{15}}{a_0^2} + \\
& \frac{19a_5a_{14}}{a_0^2} + \frac{19a_6a_{13}}{a_0^2} + \frac{19a_7a_{12}}{a_0^2} + \frac{19a_8a_{11}}{a_0^2} + \frac{19a_9a_{10}}{a_0^2} - \frac{19a_1^2a_{17}}{a_0^3} - \frac{19a_1a_9^2}{a_0^3} - \\
& \frac{19a_3a_8^2}{a_0^3} - \frac{19a_2^2a_{15}}{a_0^3} - \frac{19a_3^2a_{13}}{a_0^3} - \frac{19a_4^2a_{11}}{a_0^3} - \frac{19a_5^2a_9}{a_0^3} - \frac{19a_6^2a_7}{a_0^3} - \frac{19a_5a_7^2}{a_0^3} +
\end{aligned}$$

$$\begin{aligned}
& \frac{19a_1^3a_{16}}{a_0^4} + \frac{19a_1a_6^3}{a_0^4} + \frac{19a_2^3a_{13}}{a_0^4} + \frac{19a_3^3a_{10}}{a_0^4} + \frac{19a_4^3a_7}{a_0^4} + \frac{19a_4a_5^3}{a_0^4} - \frac{19a_1^4a_{15}}{a_0^5} - \\
& \frac{19a_3a_4^4}{a_0^5} - \frac{19a_2^4a_{11}}{a_0^5} - \frac{19a_3^4a_7}{a_0^5} + \frac{19a_1^5a_{14}}{a_0^6} + \frac{19a_2^5a_9}{a_0^6} + \frac{19a_3^5a_4}{a_0^6} - \frac{19a_1^6a_{13}}{a_0^7} - \\
& \frac{19a_1a_3^6}{a_0^7} - \frac{19a_2^6a_7}{a_0^7} + \frac{19a_1^7a_{12}}{a_0^8} + \frac{19a_2^7a_5}{a_0^8} - \frac{19a_1^8a_{11}}{a_0^9} - \frac{19a_2^8a_3}{a_0^9} + \frac{19a_1^9a_{10}}{a_0^{10}} + \\
& \frac{19a_1a_2^9}{a_0^{10}} - \frac{19a_1^{10}a_9}{a_0^{11}} + \frac{19a_1^{11}a_8}{a_0^{12}} - \frac{19a_1^{12}a_7}{a_0^{13}} + \frac{19a_1^{13}a_6}{a_0^{14}} - \frac{19a_1^{14}a_5}{a_0^{15}} + \frac{19a_1^{15}a_4}{a_0^{16}} - \\
& \frac{19a_1^{16}a_3}{a_0^{17}} + \frac{19a_1^{17}a_2}{a_0^{18}} - \frac{38a_1^3a_8^2}{a_0^5} - \frac{38a_3^3a_5^2}{a_0^5} - \frac{38a_2^2a_5^3}{a_0^5} - \frac{57a_1^5a_7^2}{a_0^7} - \frac{57a_2^2a_3^5}{a_0^7} - \\
& \frac{76a_1^7a_6^2}{a_0^9} - \frac{95a_1^9a_5^2}{a_0^{11}} - \frac{114a_1^{11}a_4^2}{a_0^{13}} - \frac{133a_1^{13}a_3^2}{a_0^{15}} - \frac{152a_1^{15}a_2^2}{a_0^{17}} - \frac{95a_1^4a_5^3}{a_0^7} - \frac{95a_1^3a_4^4}{a_0^7} + \\
& \frac{133a_2^5a_3^3}{a_0^8} + \frac{228a_1^7a_4^3}{a_0^{10}} - \frac{285a_1^3a_2^8}{a_0^{11}} - \frac{418a_1^{10}a_3^3}{a_0^{13}} + \frac{665a_1^{13}a_2^3}{a_0^{16}} - \frac{266a_1^4a_3^5}{a_0^9} - \frac{570a_1^7a_3^4}{a_0^{11}} - \\
& \frac{1729a_1^{11}a_2^4}{a_0^{15}} + \frac{1254a_1^5a_2^7}{a_0^{12}} + \frac{2717a_1^9a_2^5}{a_0^{14}} - \frac{2508a_1^7a_2^6}{a_0^{13}} - \frac{38a_1a_2a_{16}}{a_0^3} - \frac{38a_1a_3a_{15}}{a_0^3} - \\
& \frac{38a_1a_4a_{14}}{a_0^3} - \frac{38a_1a_5a_{13}}{a_0^3} - \frac{38a_1a_6a_{12}}{a_0^3} - \frac{38a_1a_7a_{11}}{a_0^3} - \frac{38a_1a_8a_{10}}{a_0^3} - \frac{38a_2a_3a_{14}}{a_0^3} - \\
& \frac{38a_2a_4a_{13}}{a_0^3} - \frac{38a_2a_5a_{12}}{a_0^3} - \frac{38a_2a_6a_{11}}{a_0^3} - \frac{38a_2a_7a_{10}}{a_0^3} - \frac{38a_2a_8a_9}{a_0^3} - \frac{38a_3a_4a_{12}}{a_0^3} - \\
& \frac{38a_3a_5a_{11}}{a_0^3} - \frac{38a_3a_6a_{10}}{a_0^3} - \frac{38a_3a_7a_9}{a_0^3} - \frac{38a_4a_5a_{10}}{a_0^3} - \frac{38a_4a_6a_9}{a_0^3} - \frac{38a_4a_7a_8}{a_0^3} - \\
& \frac{38a_5a_6a_8}{a_0^3} + \frac{57a_1^2a_2a_{15}}{a_0^4} + \frac{57a_1^2a_3a_{14}}{a_0^4} + \frac{57a_1^2a_4a_{13}}{a_0^4} + \frac{57a_1^2a_5a_{12}}{a_0^4} + \frac{57a_1^2a_6a_{11}}{a_0^4} + \\
& \frac{57a_1^2a_7a_{10}}{a_0^4} + \frac{57a_1^2a_8a_9}{a_0^4} + \frac{57a_1a_2a_8^2}{a_0^4} + \frac{57a_1a_2^2a_{14}}{a_0^4} + \frac{57a_1a_3^2a_{12}}{a_0^4} + \frac{57a_1a_4^2a_{10}}{a_0^4} + \\
& \frac{57a_1a_5^2a_8}{a_0^4} + \frac{57a_1a_4a_7^2}{a_0^4} + \frac{57a_2^2a_3a_{12}}{a_0^4} + \frac{57a_2^2a_4a_{11}}{a_0^4} + \frac{57a_2^2a_5a_{10}}{a_0^4} + \frac{57a_2^2a_6a_9}{a_0^4} + \\
& \frac{57a_2^2a_7a_8}{a_0^4} + \frac{57a_2a_3^2a_{11}}{a_0^4} + \frac{57a_3^2a_4a_9}{a_0^4} + \frac{57a_3^2a_5a_8}{a_0^4} + \frac{57a_3^2a_6a_7}{a_0^4} + \frac{57a_2a_4^2a_9}{a_0^4} + \\
& \frac{57a_3a_4^2a_8}{a_0^4} + \frac{57a_4^2a_5a_6}{a_0^4} + \frac{57a_2a_5^2a_7}{a_0^4} + \frac{57a_3a_5^2a_6}{a_0^4} + \frac{57a_2a_5a_6^2}{a_0^4} + \frac{57a_3a_4a_6^2}{a_0^4} + \\
& \frac{57a_2a_3a_7^2}{a_0^4} - \frac{76a_1^3a_2a_{14}}{a_0^5} - \frac{76a_1^3a_3a_{13}}{a_0^5} - \frac{76a_1^3a_4a_{12}}{a_0^5} - \frac{76a_1^3a_5a_{11}}{a_0^5} - \frac{76a_1^3a_6a_{10}}{a_0^5} - \\
& \frac{76a_1^3a_7a_9}{a_0^5} - \frac{76a_1a_2^3a_{12}}{a_0^5} - \frac{76a_1a_3^3a_9}{a_0^5} - \frac{76a_1a_4^3a_6}{a_0^5} - \frac{76a_1a_3a_5^3}{a_0^5} - \frac{76a_2^3a_3a_{10}}{a_0^5} - \\
& \frac{76a_2^3a_4a_9}{a_0^5} - \frac{76a_2^3a_5a_8}{a_0^5} - \frac{76a_2^3a_6a_7}{a_0^5} - \frac{76a_2a_3^3a_8}{a_0^5} - \frac{76a_3^3a_4a_6}{a_0^5} - \frac{76a_2a_4^3a_5}{a_0^5} +
\end{aligned}$$

$$\begin{aligned}
& \frac{95a_1^4a_2a_{13}}{a_0^6} + \frac{95a_1^4a_3a_{12}}{a_0^6} + \frac{95a_1^4a_4a_{11}}{a_0^6} + \frac{95a_1^4a_5a_{10}}{a_0^6} + \frac{95a_1^4a_6a_9}{a_0^6} + \frac{95a_1^4a_7a_8}{a_0^6} + \\
& \frac{95a_1a_2a_4^4}{a_0^6} + \frac{95a_1a_2^4a_{10}}{a_0^6} + \frac{95a_1a_3^4a_6}{a_0^6} + \frac{95a_2^4a_3a_8}{a_0^6} + \frac{95a_2^4a_4a_7}{a_0^6} + \frac{95a_2^4a_5a_6}{a_0^6} + \\
& \frac{95a_2a_3^4a_5}{a_0^6} - \frac{114a_1^5a_2a_{12}}{a_0^7} - \frac{114a_1^5a_3a_{11}}{a_0^7} - \frac{114a_1^5a_4a_{10}}{a_n^7} - \frac{114a_1^5a_5a_9}{a_n^7} - \\
& \frac{114a_1^5a_6a_8}{a_0^7} - \frac{114a_1a_2^5a_8}{a_0^7} - \frac{114a_2^5a_3a_6}{a_0^7} - \frac{114a_2^5a_4a_5}{a_0^7} + \frac{133a_1^6a_2a_{11}}{a_0^8} + \\
& \frac{133a_1^6a_3a_{10}}{a_0^8} + \frac{133a_1^6a_4a_9}{a_0^8} + \frac{133a_1^6a_5a_8}{a_0^8} + \frac{133a_1^6a_6a_7}{a_0^8} + \frac{133a_1a_2^6a_6}{a_0^8} + \\
& \frac{133a_2^6a_3a_4}{a_0^8} - \frac{152a_1^7a_2a_{10}}{a_0^9} - \frac{152a_1^7a_3a_9}{a_0^9} - \frac{152a_1^7a_4a_8}{a_0^9} - \frac{152a_1^7a_5a_7}{a_0^9} - \\
& \frac{152a_1a_2^7a_4}{a_0^9} + \frac{171a_1^8a_2a_9}{a_0^{10}} + \frac{171a_1^8a_3a_8}{a_0^{10}} + \frac{171a_1^8a_4a_7}{a_0^{10}} + \frac{171a_1^8a_5a_6}{a_0^{10}} - \frac{190a_1^9a_2a_8}{a_0^{11}} - \\
& \frac{190a_1^9a_3a_7}{a_0^{11}} - \frac{190a_1^9a_4a_6}{a_0^{11}} + \frac{209a_1^{10}a_2a_7}{a_0^{12}} + \frac{209a_1^{10}a_3a_6}{a_0^{12}} + \frac{209a_1^{10}a_4a_5}{a_0^{12}} - \\
& \frac{228a_1^{11}a_2a_6}{a_0^{13}} - \frac{228a_1^{11}a_3a_5}{a_0^{13}} + \frac{247a_1^{12}a_2a_5}{a_0^{14}} + \frac{247a_1^{12}a_3a_4}{a_0^{14}} - \frac{266a_1^{13}a_2a_4}{a_0^{15}} + \\
& \frac{285a_1^{14}a_2a_3}{a_0^{16}} - \frac{114a_1^2a_5a_6^2}{a_0^5} - \frac{114a_1^2a_2^2a_{13}}{a_0^5} - \frac{114a_1^2a_3^2a_{11}}{a_0^5} - \frac{114a_1^2a_4^2a_9}{a_n^5} - \\
& \frac{114a_1^2a_5^2a_7}{a_0^5} - \frac{114a_1^2a_3a_7^2}{a_0^5} - \frac{114a_1a_2^2a_7^2}{a_0^5} - \frac{114a_1a_3^2a_6^2}{a_0^5} - \frac{114a_1a_4^2a_5^2}{a_0^5} - \frac{114a_2^2a_3^2a_9}{a_0^5} - \\
& \frac{114a_2^2a_4^2a_7}{a_0^5} - \frac{114a_2^2a_3a_6^2}{a_0^5} - \frac{114a_3^2a_4^2a_5}{a_0^5} + \frac{190a_1^3a_4a_6^2}{a_0^6} + \frac{190a_1^3a_2a_{12}}{a_0^6} + \\
& \frac{190a_1^3a_3^2a_{10}}{a_0^6} + \frac{190a_1^3a_4^2a_8}{a_0^6} + \frac{190a_1^3a_5a_6}{a_0^6} + \frac{190a_1^3a_2a_7^2}{a_0^6} + \frac{190a_1^2a_2^3a_{11}}{a_0^6} + \\
& \frac{190a_1^2a_3^3a_8}{a_0^6} + \frac{190a_1^2a_4^3a_5}{a_0^6} + \frac{190a_1^2a_2a_5^3}{a_0^6} + \frac{190a_1a_2^3a_6^2}{a_0^6} + \frac{190a_1a_3^2a_4^3}{a_0^6} + \frac{190a_2^3a_3^2a_7}{a_0^6} + \\
& \frac{190a_2^3a_4^2a_5}{a_0^6} + \frac{190a_2^2a_3a_6}{a_0^6} + \frac{190a_2^2a_3a_4^3}{a_0^6} + \frac{190a_2^3a_3a_5^2}{a_0^6} + \frac{190a_2a_3^3a_4^2}{a_0^6} - \frac{285a_1^4a_3a_6^2}{a_0^7} - \\
& \frac{285a_1^4a_2^2a_{11}}{a_0^7} - \frac{285a_1^4a_3^2a_9}{a_0^7} - \frac{285a_1^4a_4^2a_7}{a_0^7} - \frac{285a_1^2a_4^4a_9}{a_0^7} - \frac{285a_1^2a_3^4a_5}{a_0^7} - \\
& \frac{285a_1a_2^4a_5^2}{a_0^7} - \frac{285a_2^4a_3^2a_5}{a_0^7} - \frac{285a_2^4a_3a_4^2}{a_0^7} + \frac{399a_1^5a_2^2a_{10}}{a_0^8} + \frac{399a_1^5a_3^2a_8}{a_0^8} + \\
& \frac{399a_1^5a_4^2a_6}{a_0^8} + \frac{399a_1^5a_4a_5^2}{a_0^8} + \frac{399a_1^5a_2a_6^2}{a_0^8} + \frac{399a_1^2a_2a_3^5}{a_0^8} + \frac{399a_1^2a_2^5a_7}{a_0^8} + \frac{399a_1a_2^5a_4^2}{a_0^8} -
\end{aligned}$$

$$\begin{aligned}
& \frac{532a_1^6a_{02}^2a_9}{a_0^9} - \frac{532a_1^6a_3^2a_7}{a_0^9} - \frac{532a_1^6a_4^2a_5}{a_0^9} - \frac{532a_1^6a_3a_5^2}{a_0^9} - \frac{532a_1^2a_2^6a_5}{a_0^9} - \\
& \frac{532a_1a_2^6a_3^2}{a_0^9} + \frac{684a_1^7a_2^2a_8}{a_0^{10}} + \frac{684a_1^7a_3^2a_6}{a_0^{10}} + \frac{684a_1^7a_2a_5^2}{a_0^{10}} + \frac{684a_1^2a_2^7a_3}{a_0^{10}} - \frac{855a_1^8a_2^2a_7}{a_0^{11}} - \\
& \frac{855a_1^8a_3^2a_5}{a_0^{11}} - \frac{855a_1^8a_3a_4^2}{a_0^{11}} + \frac{1045a_1^9a_2^2a_6}{a_0^{12}} + \frac{1045a_1^9a_3^2a_4}{a_0^{12}} + \frac{1045a_1^9a_2a_4^2}{a_0^{12}} - \\
& \frac{1254a_1^{10}a_2^2a_5}{a_0^{13}} + \frac{1482a_1^{11}a_2^2a_4}{a_0^{14}} + \frac{1482a_1^{11}a_2a_3^2}{a_0^{14}} - \frac{1729a_1^{12}a_2^2a_3}{a_0^{15}} - \frac{380a_1^3a_2^3a_{10}}{a_0^7} - \\
& \frac{380a_1^3a_3^3a_7}{a_0^7} - \frac{380a_1a_2^3a_4^3}{a_0^7} - \frac{380a_2^3a_3^3a_4}{a_0^7} + \frac{665a_1^4a_3a_4^3}{a_0^8} + \frac{665a_1^4a_2^3a_9}{a_0^8} + \frac{665a_1^4a_3^3a_6}{a_0^8} + \\
& \frac{665a_1^3a_2^4a_8}{a_0^8} + \frac{665a_1^3a_3^4a_4}{a_0^8} + \frac{665a_1a_2^3a_4^4}{a_0^8} - \frac{1064a_1^5a_2a_4^3}{a_0^9} - \frac{1064a_1^5a_2^3a_8}{a_0^9} - \frac{1064a_1^5a_3^3a_5}{a_0^9} - \\
& \frac{1064a_1^3a_2^5a_6}{a_0^9} + \frac{1596a_1^6a_2^3a_7}{a_0^{10}} + \frac{1596a_1^6a_3^3a_4}{a_0^{10}} + \frac{1596a_1^6a_2^6a_4}{a_0^{10}} - \frac{2280a_1^7a_2^3a_6}{a_0^{11}} + \\
& \frac{3135a_1^8a_2^3a_5}{a_0^{12}} + \frac{3135a_1^8a_2a_3^3}{a_0^{12}} - \frac{4180a_1^9a_2^3a_4}{a_0^{13}} + \frac{5434a_1^{10}a_2^3a_3}{a_0^{14}} - \frac{1330a_1^4a_2^4a_7}{a_0^9} + \\
& \frac{2394a_1^5a_2a_3^4}{a_0^{10}} + \frac{2394a_1^5a_2^4a_6}{a_0^{10}} - \frac{3990a_1^6a_2^4a_5}{a_0^{11}} - \frac{3990a_1^4a_2^6a_3}{a_0^{11}} + \frac{6270a_1^7a_2^4a_4}{a_0^{12}} - \\
& \frac{9405a_1^8a_2^4a_3}{a_0^{13}} + \frac{2394a_1^4a_2^5a_5}{a_0^{10}} - \frac{4788a_1^5a_2^5a_4}{a_0^{11}} + \frac{8778a_1^6a_2^5a_3}{a_0^{12}} - \frac{570a_1^3a_2^2a_6^2}{a_0^7} - \frac{570a_1^3a_3^2a_5^2}{a_0^7} - \\
& \frac{570a_1^2a_3^3a_4^2}{a_0^7} - \frac{1596a_1^5a_2^2a_5^2}{a_0^9} - \frac{1596a_1^5a_3^2a_4^2}{a_0^9} - \frac{3420a_1^7a_2^2a_4^2}{a_0^{11}} - \frac{6270a_1^9a_2^2a_3^2}{a_0^{13}} + \frac{1330a_1^3a_2^2a_4^3}{a_0^8} + \\
& \frac{1330a_1^3a_2^3a_5^2}{a_0^8} - \frac{2660a_1^3a_2^4a_4^2}{a_0^9} - \frac{2660a_1^3a_2^2a_3^4}{a_0^9} - \frac{2660a_1^2a_2^4a_3^3}{a_0^9} + \frac{4788a_1^5a_2^3a_4^2}{a_0^{10}} + \\
& \frac{4788a_1^3a_2^5a_3^2}{a_0^{10}} - \frac{7980a_1^6a_2^2a_3^3}{a_0^{11}} + \frac{12540a_1^7a_2^3a_3^2}{a_0^{12}} - \frac{11970a_1^5a_2^4a_3^2}{a_0^{11}} + \frac{7980a_1^4a_2^3a_3^3}{a_0^{10}} + \\
& \frac{114a_1a_2a_3a_{13}}{a_0^4} + \frac{114a_1a_2a_4a_{12}}{a_0^4} + \frac{114a_1a_2a_5a_{11}}{a_0^4} + \frac{114a_1a_2a_6a_{10}}{a_0^4} + \frac{114a_1a_2a_7a_9}{a_0^4} + \\
& \frac{114a_1a_3a_4a_{11}}{a_0^4} + \frac{114a_1a_3a_5a_{10}}{a_0^4} + \frac{114a_1a_3a_6a_9}{a_0^4} + \frac{114a_1a_3a_7a_8}{a_0^4} + \frac{114a_1a_4a_5a_9}{a_0^4} + \\
& \frac{114a_1a_4a_6a_8}{a_0^4} + \frac{114a_1a_5a_6a_7}{a_0^4} + \frac{114a_2a_3a_4a_{10}}{a_0^4} + \frac{114a_2a_3a_5a_9}{a_0^4} + \frac{114a_2a_3a_6a_8}{a_0^4} + \\
& \frac{114a_2a_4a_5a_8}{a_0^4} + \frac{114a_2a_4a_6a_7}{a_0^4} + \frac{114a_3a_4a_5a_7}{a_0^4} - \frac{228a_1^2a_2a_3a_{12}}{a_0^5} - \frac{228a_1^2a_2a_4a_{11}}{a_0^5} - \\
& \frac{228a_1^2a_2a_5a_{10}}{a_0^5} - \frac{228a_1^2a_2a_6a_9}{a_0^5} - \frac{228a_1^2a_2a_7a_8}{a_0^5} - \frac{228a_1^2a_3a_4a_{10}}{a_0^5} - \frac{228a_1^2a_3a_5a_9}{a_0^5} - \\
& \frac{228a_1^2a_3a_6a_8}{a_0^5} - \frac{228a_1^2a_4a_5a_8}{a_0^5} - \frac{228a_1^2a_4a_6a_7}{a_0^5} - \frac{228a_1a_2^2a_3a_{11}}{a_0^5} - \frac{228a_1a_2^2a_4a_{10}}{a_0^5} - \\
& \frac{228a_1a_2^2a_5a_9}{a_0^5} - \frac{228a_1a_2^2a_6a_8}{a_0^5} - \frac{228a_1a_2a_3^2a_{10}}{a_0^5} - \frac{228a_1a_2^3a_4a_8}{a_0^5} - \frac{228a_1a_2^3a_5a_7}{a_0^5} - \\
& \frac{228a_1a_2a_4^2a_8}{a_0^5} - \frac{228a_1a_3a_4^2a_7}{a_0^5} - \frac{228a_1a_2a_5^2a_6}{a_0^5} - \frac{228a_1a_2a_4a_6^2}{a_0^5} - \frac{228a_2^2a_3a_4a_8}{a_0^5} - \\
& \frac{228a_2^2a_3a_5a_7}{a_0^5} - \frac{228a_2^2a_4a_5a_6}{a_0^5} - \frac{228a_2a_3^2a_4a_7}{a_0^5} - \frac{228a_2a_3^2a_5a_6}{a_0^5} - \frac{228a_2a_3a_4^2a_6}{a_0^5} - \\
& \frac{228a_2a_3a_4a_5^2}{a_0^5} + \frac{380a_1^3a_2a_3a_{11}}{a_0^6} + \frac{380a_1^3a_2a_4a_{10}}{a_0^6} + \frac{380a_1^3a_2a_5a_9}{a_0^6} + \frac{380a_1^3a_2a_6a_8}{a_0^6} +
\end{aligned}$$

$$\begin{aligned}
& \frac{380a_1^3a_3a_4a_9}{a_0^6} + \frac{380a_1^3a_3a_5a_8}{a_0^6} + \frac{380a_1^3a_3a_6a_7}{a_0^6} + \frac{380a_1^3a_4a_5a_{n-7}}{a_0^6} + \frac{380a_1a_2^3a_3a_9}{a_0^6} + \\
& \frac{380a_1a_2^3a_4a_8}{a_0^6} + \frac{380a_1a_2^3a_5a_7}{a_0^6} + \frac{380a_1a_2a_3^3a_7}{a_0^6} + \frac{380a_1a_3^3a_4a_5}{a_0^6} + \frac{380a_2^3a_3a_4a_6}{a_0^6} - \\
& \frac{570a_1^4a_2a_3a_{10}}{a_0^7} - \frac{570a_1^4a_2a_4a_9}{a_0^7} - \frac{570a_1^4a_2a_5a_8}{a_0^7} - \frac{570a_1^4a_2a_6a_7}{a_0^7} - \frac{570a_1^4a_3a_4a_8}{a_0^7} - \\
& \frac{570a_1^4a_3a_5a_7}{a_0^7} - \frac{570a_1^4a_4a_5a_6}{a_0^7} - \frac{570a_1a_2^4a_3a_7}{a_0^7} - \frac{570a_1a_2^4a_4a_6}{a_0^7} - \frac{570a_1a_2a_3^4a_4}{a_0^7} + \\
& \frac{798a_1^5a_2a_3a_9}{a_0^8} + \frac{798a_1^5a_2a_4a_8}{a_0^8} + \frac{798a_1^5a_2a_5a_7}{a_0^8} + \frac{798a_1^5a_3a_4a_7}{a_0^8} + \frac{798a_1^5a_3a_5a_6}{a_0^8} + \\
& \frac{798a_1a_2^5a_3a_5}{a_0^8} - \frac{1064a_1^6a_2a_3a_8}{a_0^9} - \frac{1064a_1^6a_2a_4a_7}{a_0^9} - \frac{1064a_1^6a_2a_5a_6}{a_0^9} - \frac{1064a_1^6a_3a_4a_6}{a_0^9} + \\
& \frac{1368a_1^7a_2a_3a_7}{a_0^{10}} + \frac{1368a_1^7a_2a_4a_6}{a_0^{10}} + \frac{1368a_1^7a_3a_4a_5}{a_0^{10}} - \frac{1710a_1^8a_2a_3a_6}{a_0^{11}} - \frac{1710a_1^8a_2a_4a_5}{a_0^{11}} + \\
& \frac{2090a_1^9a_2a_3a_{n5}}{a_0^{12}} - \frac{2508a_1^{10}a_2a_3a_4}{a_0^{13}} + \frac{570a_1^2a_2^2a_3a_{10}}{a_0^6} + \frac{570a_1^2a_2^2a_4a_9}{a_0^6} + \frac{570a_1^2a_2^2a_5a_8}{a_0^6} + \\
& \frac{570a_1^2a_2^2a_6a_7}{a_0^6} + \frac{570a_1^2a_2a_3^2a_9}{a_0^6} + \frac{570a_1^2a_3^2a_4a_7}{a_0^6} + \frac{570a_1^2a_3^2a_5a_6}{a_0^6} + \frac{570a_1^2a_2a_4^2a_7}{a_0^6} + \\
& \frac{570a_1^2a_3a_4^2a_6}{a_0^6} + \frac{570a_1^2a_3a_4a_5^2}{a_0^6} + \frac{570a_1^2a_2a_3a_6^2}{a_0^6} + \frac{570a_1a_2^2a_3^2a_8}{a_0^6} + \frac{570a_1a_2^2a_4^2a_6}{a_0^6} + \\
& \frac{570a_1a_2^2a_4a_5^2}{a_0^6} + \frac{570a_1a_2a_3^2a_5^2}{a_0^6} + \frac{570a_2^2a_3^2a_4a_5}{a_0^6} - \frac{1140a_1^3a_2^2a_3a_9}{a_0^7} - \frac{1140a_1^3a_2^2a_4a_8}{a_0^7} - \\
& \frac{1140a_1^3a_2^2a_5a_7}{a_0^7} - \frac{1140a_1^3a_2a_3^2a_8}{a_0^7} - \frac{1140a_1^3a_2a_4a_6}{a_0^7} - \frac{1140a_1^3a_2a_4^2a_6}{a_0^7} - \frac{1140a_1^3a_3a_4^2a_5}{a_0^7} - \\
& \frac{1140a_1^3a_2a_4a_5^2}{a_0^7} - \frac{1140a_1^2a_3^2a_3a_8}{a_0^7} - \frac{1140a_1^2a_2^3a_4a_7}{a_0^7} - \frac{1140a_1^2a_2^3a_5a_6}{a_0^7} - \frac{1140a_1^2a_2a_3^3a_6}{a_0^7} - \\
& \frac{1140a_1^2a_2a_3a_4^3}{a_0^7} - \frac{1140a_1a_2^3a_3^2a_6}{a_0^7} - \frac{1140a_1a_2^2a_3^3a_5}{a_0^7} + \frac{1995a_1^4a_2^2a_3a_8}{a_0^7} + \frac{1995a_1^4a_2^2a_4a_7}{a_0^8} + \\
& \frac{1995a_1^4a_2^2a_5a_6}{a_0^8} + \frac{1995a_1^4a_2a_3^2a_7}{a_0^8} + \frac{1995a_1^4a_3^2a_4a_5}{a_0^8} + \frac{1995a_1^4a_2a_4^2a_5}{a_0^8} + \frac{1995a_1^4a_2a_3a_5^2}{a_0^8} + \\
& \frac{1995a_1^2a_2^4a_3a_6}{a_0^8} + \frac{1995a_1^2a_2^4a_4a_5}{a_0^8} + \frac{1995a_1a_2^4a_3^2a_4}{a_0^8} - \frac{3192a_1^5a_2^2a_3a_7}{a_0^9} - \frac{3192a_1^5a_2^2a_4a_6}{a_0^9} - \\
& \frac{3192a_1^5a_2a_3^2a_6}{a_0^9} - \frac{3192a_1^2a_2^5a_3a_4}{a_0^9} + \frac{4788a_1^6a_2^2a_3a_6}{a_0^{10}} + \frac{4788a_1^6a_2^2a_4a_5}{a_0^{10}} + \frac{4788a_1^6a_2a_3^2a_5}{a_0^{10}} + \\
& \frac{4788a_1^6a_2a_4^2a_5}{a_0^{10}} - \frac{6840a_1^7a_2^2a_3a_5}{a_0^{11}} - \frac{6840a_1^7a_2a_3^2a_4}{a_0^{11}} + \frac{9405a_1^8a_2^2a_3a_4}{a_0^{12}} + \frac{2660a_1^3a_2^3a_3a_7}{a_0^8} + \\
& \frac{2660a_1^3a_2^3a_4a_6}{a_0^8} + \frac{2660a_1^3a_2a_3^3a_5}{a_0^8} - \frac{5320a_1^4a_2^3a_3a_6}{a_0^9} - \frac{5320a_1^4a_2^3a_4a_5}{a_0^9} - \frac{5320a_1^4a_2a_3^3a_4}{a_0^9} - \\
& \frac{5320a_1^3a_2^4a_3a_5}{a_0^9} + \frac{9576a_1^5a_2^3a_3a_5}{a_0^{10}} - \frac{15960a_1^6a_2^3a_3a_4}{a_0^{11}} + \frac{11970a_1^4a_2^4a_3a_4}{a_0^{10}} - \frac{1710a_1^2a_2^2a_3^2a_7}{a_0^7} - \\
& \frac{1710a_1^2a_2^2a_4^2a_5}{a_0^7} - \frac{1710a_1a_2^2a_3^2a_5^2}{a_0^7} - \frac{1710a_1a_2^2a_3^2a_4^2}{a_0^7} + \frac{3990a_1^3a_2^2a_3^2a_6}{a_0^8} + \frac{3990a_1^3a_2a_3^2a_4^2}{a_0^8} + \\
& \frac{3990a_1^2a_2^3a_3^2a_5}{a_0^8} + \frac{3990a_1^2a_2^3a_3a_4^2}{a_0^8} + \frac{3990a_1^2a_2^2a_3^3a_4}{a_0^8} - \frac{7980a_1^4a_2^2a_3^2a_5}{a_0^9} - \frac{7980a_1^4a_2^2a_3a_4^2}{a_0^9} - \\
& \frac{10640a_1^3a_2^3a_3^2a_4}{a_0^9} + \frac{14364a_1^5a_2^2a_3^2a_4}{a_0^{10}} - \frac{456a_1a_2a_3a_4a_9}{a_0^5} - \frac{456a_1a_2a_3a_5a_8}{a_0^5} - \\
& \frac{456a_1a_2a_3a_6a_7}{a_0^5} - \frac{456a_1a_2a_4a_5a_7}{a_0^5} - \frac{456a_1a_3a_4a_5a_6}{a_0^5} + \frac{1140a_1^2a_2a_3a_4a_8}{a_0^6} +
\end{aligned}$$

$$\begin{aligned}
& \frac{1140a_1^2a_2a_3a_5a_7}{a_0^6} + \frac{1140a_1^2a_2a_4a_5a_6}{a_0^6} + \frac{1140a_1a_2^2a_3a_4a_7}{a_0^6} + \frac{1140a_1a_2^2a_3a_5a_6}{a_0^6} + \\
& \frac{1140a_1a_2a_3^2a_4a_6}{a_0^6} + \frac{1140a_1a_2a_3a_4^2a_5}{a_0^6} - \frac{2280a_1^3a_2a_3a_4a_7}{a_n^7} - \frac{2280a_1^3a_2a_3a_5a_6}{a_0^7} - \\
& \frac{2280a_1^3a_2^3a_3a_4a_5}{a_0^7} + \frac{3990a_1^4a_2a_3a_4a_6}{a_0^8} - \frac{6384a_1^5a_2a_3a_4a_5}{a_0^9} - \frac{3420a_1^2a_2^2a_3a_4a_6}{a_0^7} - \\
& \frac{3420a_1^2a_2a_3^2a_4a_5}{a_0^7} + \frac{7980a_1^3a_2^2a_3a_4a_5}{a_0^8} \\
& \sum_{k=1}^n \frac{1}{z_k^{20}} = -\frac{20a_{20}}{a_0} + \frac{10a_{10}^2}{a_0^2} + \frac{5a_5^4}{a_0^4} - \frac{5a_4^5}{a_0^5} + \frac{2a_2^{10}}{a_0^{10}} + \frac{a_1^{20}}{a_0^{20}} + \frac{20a_1a_{19}}{a_0^2} + \frac{20a_2a_{18}}{a_0^2} + \\
& \frac{20a_3a_{17}}{a_0^2} + \frac{20a_4a_{16}}{a_0^2} + \frac{20a_5a_{15}}{a_0^2} + \frac{20a_6a_{14}}{a_0^2} + \frac{20a_7a_{13}}{a_0^2} + \frac{20a_8a_{12}}{a_0^2} + \frac{20a_9a_{11}}{a_0^2} - \\
& \frac{20a_1^2a_{18}}{a_0^3} - \frac{20a_4a_8^2}{a_0^3} - \frac{20a_2^2a_{16}}{a_0^3} - \frac{20a_3^2a_{14}}{a_0^3} - \frac{20a_4^2a_{12}}{a_0^3} - \frac{20a_5^2a_{10}}{a_0^3} - \frac{20a_6^2a_8}{a_0^3} - \frac{20a_6a_7^2}{a_0^3} - \\
& \frac{20a_2a_9^2}{a_0^3} + \frac{20a_3^3a_{17}}{a_0^4} + \frac{20a_2^3a_{14}}{a_0^4} + \frac{20a_3^3a_{11}}{a_0^4} + \frac{20a_4^3a_8}{a_0^4} + \frac{20a_2a_6^3}{a_0^4} - \frac{20a_1^4a_{16}}{a_0^5} - \frac{20a_2^4a_{12}}{a_0^5} - \\
& \frac{20a_4^4a_8}{a_0^5} + \frac{20a_5^5a_{15}}{a_0^6} + \frac{20a_2^5a_{10}}{a_0^6} + \frac{20a_3^5a_5}{a_0^6} - \frac{20a_1^6a_{14}}{a_0^7} - \frac{20a_2^6a_8}{a_0^7} - \frac{20a_2a_3^6}{a_0^7} + \frac{20a_1^7a_{13}}{a_0^8} + \\
& \frac{20a_2^7a_6}{a_0^8} - \frac{20a_1^8a_{12}}{a_0^9} - \frac{20a_2^8a_4}{a_0^9} + \frac{20a_1^9a_{11}}{a_0^{10}} - \frac{20a_1^{10}a_{10}}{a_0^{11}} + \frac{20a_1^{11}a_9}{a_0^{12}} - \frac{20a_1^{12}a_8}{a_0^{13}} + \frac{20a_1^{13}a_7}{a_0^{14}} - \\
& \frac{20a_1^{14}a_6}{a_0^{15}} + \frac{20a_1^{15}a_5}{a_0^{16}} - \frac{20a_1^{16}a_4}{a_0^{17}} + \frac{20a_1^{17}a_3}{a_0^{18}} - \frac{20a_1^{18}a_2}{a_0^{19}} + \frac{30a_1^2a_9^2}{a_0^4} + \frac{30a_2^2a_8^2}{a_0^4} + \frac{30a_3^2a_7^2}{a_0^4} + \\
& \frac{30a_4^2a_6^2}{a_0^4} - \frac{40a_1^2a_6^3}{a_0^5} - \frac{40a_2^3a_7^2}{a_0^5} + \frac{50a_4^4a_8^2}{a_0^6} + \frac{50a_2^4a_6^2}{a_0^6} + \frac{50a_3^4a_4^2}{a_0^6} + \frac{50a_2^2a_4^4}{a_0^6} - \frac{60a_2^5a_5^2}{a_0^7} + \\
& \frac{70a_1^6a_7^2}{a_0^8} + \frac{70a_1^2a_3^6}{a_0^8} + \frac{70a_2^6a_4^2}{a_0^8} - \frac{80a_2^7a_3^2}{a_0^9} + \frac{90a_1^8a_6^2}{a_0^{10}} - \frac{100a_2^1a_2^9}{a_0^{11}} + \frac{110a_1^{10}a_5^2}{a_0^{12}} + \frac{130a_1^{12}a_4^2}{a_0^{14}} + \\
& \frac{150a_1^{14}a_3^2}{a_0^{16}} + \frac{170a_1^{16}a_2^2}{a_0^{18}} - \frac{100a_2^4a_4^3}{a_0^7} + \frac{140a_1^5a_5^3}{a_0^8} - \frac{300a_1^8a_4^3}{a_0^{11}} + \frac{520a_1^{11}a_3^3}{a_0^0} - \frac{800a_1^{14}a_2^3}{a_0^{17}} + \\
& \frac{175a_1^4a_4^4}{a_0^8} + \frac{175a_2^4a_3^4}{a_0^{12}} + \frac{825a_1^8a_3^4}{a_0^{12}} + \frac{825a_1^4a_2^8}{a_0^{16}} + \frac{2275a_1^{12}a_2^4}{a_0^{16}} + \frac{504a_1^5a_3^5}{a_0^{10}} - \frac{4004a_1^{10}a_2^5}{a_0^{15}} - \\
& \frac{2640a_1^6a_2^7}{a_0^{13}} + \frac{4290a_1^8a_2^6}{a_0^{14}} - \frac{40a_1a_2a_{17}}{a_0^3} - \frac{40a_1a_3a_{16}}{a_0^3} - \frac{40a_1a_4a_{15}}{a_0^3} - \frac{40a_1a_{n-5}a_{14}}{a_0^3} - \\
& \frac{40a_1a_6a_{13}}{a_0^3} - \frac{40a_1a_7a_{12}}{a_0^3} - \frac{40a_1a_8a_{11}}{a_0^3} - \frac{40a_1a_9a_{10}}{a_0^3} - \frac{40a_2a_3a_{15}}{a_0^3} - \frac{40a_2a_4a_{14}}{a_0^3} - \\
& \frac{40a_2a_5a_{13}}{a_0^3} - \frac{40a_2a_6a_{12}}{a_0^3} - \frac{40a_2a_7a_{11}}{a_0^3} - \frac{40a_2a_8a_{10}}{a_0^3} - \frac{40a_3a_4a_{13}}{a_0^3} - \frac{40a_3a_5a_{12}}{a_0^3} - \\
& \frac{40a_3a_6a_{11}}{a_0^3} - \frac{40a_3a_7a_{10}}{a_0^3} - \frac{40a_3a_8a_9}{a_0^3} - \frac{40a_4a_5a_{11}}{a_0^3} - \frac{40a_4a_6a_{10}}{a_0^3} - \frac{40a_4a_7a_9}{a_0^3} - \\
& \frac{40a_5a_6a_9}{a_0^3} - \frac{40a_5a_7a_8}{a_0^3} + \frac{60a_1^2a_2a_{16}}{a_0^4} + \frac{60a_1^2a_3a_{15}}{a_0^4} + \frac{60a_1^2a_4a_{14}}{a_0^4} + \frac{60a_1^2a_5a_{13}}{a_0^4} + \\
& \frac{60a_1^2a_6a_{12}}{a_0^4} + \frac{60a_1^2a_7a_{11}}{a_0^4} + \frac{60a_1^2a_8a_{10}}{a_0^4} + \frac{60a_1a_3a_8^2}{a_0^4} + \frac{60a_1a_2^2a_{15}}{a_0^4} + \frac{60a_1a_3^2a_{13}}{a_0^4} + \\
& \frac{60a_1a_4^2a_{11}}{a_0^4} + \frac{60a_1a_5a_9}{a_0^4} + \frac{60a_1a_6a_7}{a_0^4} + \frac{60a_1a_5a_7^2}{a_0^4} + \frac{60a_2^2a_3a_{13}}{a_0^4} + \frac{60a_2^2a_4a_{12}}{a_0^4} + \\
& \frac{60a_2^2a_5a_{11}}{a_0^4} + \frac{60a_2^2a_6a_{10}}{a_0^4} + \frac{60a_2^2a_7a_9}{a_0^4} + \frac{60a_2a_3a_{12}}{a_0^4} + \frac{60a_3^2a_4a_{10}}{a_0^4} + \frac{60a_3^2a_5a_9}{a_0^4} + \\
& \frac{60a_3^2a_6a_8}{a_0^4} + \frac{60a_2a_4^2a_{10}}{a_0^4} + \frac{60a_3a_4^2a_9}{a_0^4} + \frac{60a_4^2a_5a_7}{a_0^4} + \frac{60a_2a_5^2a_8}{a_0^4} + \frac{60a_3a_5^2a_7}{a_0^4} + \frac{60a_4a_5^2a_6}{a_0^4} +
\end{aligned}$$

$$\begin{aligned}
& \frac{60a_3a_5a_6^2}{a_0^4} + \frac{60a_2a_4a_7^2}{a_0^4} - \frac{80a_1^3a_2a_{15}}{a_0^5} - \frac{80a_1^3a_3a_{14}}{a_0^5} - \frac{80a_1^3a_4a_{13}}{a_0^5} - \frac{80a_1^3a_5a_{12}}{a_0^5} - \\
& \frac{80a_1^3a_6a_{11}}{a_0^5} - \frac{80a_1^3a_7a_{10}}{a_0^5} - \frac{80a_1^3a_8a_9}{a_0^5} - \frac{80a_1a_2^3a_{13}}{a_0^5} - \frac{80a_1a_3^3a_{10}}{a_0^5} - \frac{80a_1a_4^3a_7}{a_0^5} - \\
& \frac{80a_1a_4a_5^3}{a_0^5} - \frac{80a_2a_3a_{11}}{a_0^5} - \frac{80a_2a_4a_{10}}{a_0^5} - \frac{80a_2a_5a_9}{a_0^5} - \frac{80a_2a_6a_8}{a_0^5} - \frac{80a_2a_3a_9}{a_0^5} - \\
& \frac{80a_3a_4a_7}{a_0^5} - \frac{80a_3a_5a_6}{a_0^5} - \frac{80a_2a_4a_6}{a_0^5} - \frac{80a_3a_4a_5}{a_0^5} - \frac{80a_2a_3a_5^3}{a_0^5} + \frac{100a_1^4a_2a_{14}}{a_0^6} + \\
& \frac{100a_1^4a_3a_{13}}{a_0^6} + \frac{100a_1^4a_4a_{12}}{a_0^6} + \frac{100a_1^4a_5a_{11}}{a_0^6} + \frac{100a_1^4a_6a_{10}}{a_0^6} + \frac{100a_1^4a_7a_9}{a_0^6} + \frac{100a_1a_3^4a_7}{a_0^6} + \\
& \frac{100a_1a_3a_4^4}{a_0^6} + \frac{100a_1a_2^4a_{11}}{a_0^6} + \frac{100a_2a_3a_9}{a_0^6} + \frac{100a_2a_4a_8}{a_0^6} + \frac{100a_2a_5a_7}{a_0^6} + \frac{100a_2a_3a_6}{a_0^6} - \\
& \frac{120a_1^5a_2a_{13}}{a_0^7} - \frac{120a_1^5a_3a_{12}}{a_0^7} - \frac{120a_1^5a_4a_{11}}{a_0^7} - \frac{120a_1^5a_5a_{10}}{a_0^7} - \frac{120a_1^5a_6a_9}{a_0^7} - \frac{120a_1^5a_7a_8}{a_0^7} - \\
& \frac{120a_1a_2^5a_9}{a_0^7} - \frac{120a_1a_3^5a_4}{a_0^7} - \frac{120a_2^5a_3a_7}{a_0^7} - \frac{120a_2^5a_4a_6}{a_0^7} + \frac{140a_1^6a_2}{a_0^8} + \frac{140a_1^6a_3a_{11}}{a_0^8} + \\
& \frac{140a_1^6a_4a_{10}}{a_0^8} + \frac{140a_1^6a_5a_9}{a_0^8} + \frac{140a_1^6a_6a_8}{a_0^8} + \frac{140a_1a_2^6a_7}{a_0^8} + \frac{140a_2^6a_3a_5}{a_0^8} - \frac{160a_1^7a_2a_{11}}{a_0^9} - \\
& \frac{160a_1^7a_3a_{10}}{a_0^9} - \frac{160a_1^7a_4a_9}{a_0^9} - \frac{160a_1^7a_5a_8}{a_0^9} - \frac{160a_1^7a_6a_7}{a_0^9} - \frac{160a_1a_2^7a_5}{a_0^9} + \frac{180a_1^8a_2a_{10}}{a_0^{10}} + \\
& \frac{180a_1^8a_3a_9}{a_0^{10}} + \frac{180a_1^8a_4a_8}{a_0^{10}} + \frac{180a_1^8a_5a_7}{a_0^{10}} + \frac{180a_1a_2^8a_3}{a_0^{10}} - \frac{200a_1^9a_2a_9}{a_0^{11}} - \frac{200a_1^9a_3a_8}{a_0^{11}} - \\
& \frac{200a_1^9a_4a_7}{a_0^{11}} - \frac{200a_1^9a_5a_6}{a_0^{11}} + \frac{220a_1^{10}a_2a_8}{a_0^{12}} + \frac{220a_1^{10}a_3a_7}{a_0^{12}} + \frac{220a_1^{10}a_4a_6}{a_0^{12}} - \frac{240a_1^{11}a_2a_7}{a_0^{13}} - \\
& \frac{240a_1^{11}a_3a_6}{a_0^{13}} - \frac{240a_1^{11}a_4a_5}{a_0^{13}} + \frac{260a_1^{12}a_2a_6}{a_0^{14}} + \frac{260a_1^{12}a_3a_5}{a_0^{14}} - \frac{280a_1^{13}a_2a_5}{a_0^{15}} - \frac{280a_1^{13}a_3a_4}{a_0^{15}} + \\
& \frac{300a_1^{14}a_2a_4}{a_0^{16}} - \frac{320a_1^{15}a_2a_3}{a_0^{17}} - \frac{120a_1^2a_2a_8^2}{a_0^5} - \frac{120a_1^2a_2^2a_{14}}{a_0^5} - \frac{120a_1^2a_3^2a_{12}}{a_0^5} - \frac{120a_1^2a_4^2a_{10}}{a_0^5} - \\
& \frac{120a_1^2a_5^2a_8}{a_0^5} - \frac{120a_1^2a_4a_7^2}{a_0^5} - \frac{120a_2^2a_3^2a_{10}}{a_0^5} - \frac{120a_2^2a_4^2a_8}{a_0^5} - \frac{120a_2^2a_5^2a_6}{a_0^5} - \frac{120a_2^2a_4a_6^2}{a_0^5} - \\
& \frac{120a_3^2a_4^2a_6}{a_0^5} - \frac{120a_3^2a_4a_5^2}{a_0^5} - \frac{120a_2a_3^2a_6^2}{a_0^5} - \frac{120a_2a_4^2a_5^2}{a_0^5} + \frac{200a_1^3a_5a_6^2}{a_0^6} + \frac{200a_1^3a_2a_{13}}{a_0^6} + \\
& \frac{200a_1^3a_3a_{11}}{a_0^6} + \frac{200a_1^3a_4a_9}{a_0^6} + \frac{200a_1^3a_5a_7}{a_0^6} + \frac{200a_1^3a_3a_7}{a_0^6} + \frac{200a_1^2a_3a_{12}}{a_0^6} + \frac{200a_1^2a_3a_9}{a_0^6} + \\
& \frac{200a_1^2a_4^3a_6}{a_0^6} + \frac{200a_1^2a_3a_5^3}{a_0^6} + \frac{200a_1a_3^3a_5^2}{a_0^6} + \frac{200a_1a_2^2a_5^3}{a_0^6} + \frac{200a_2^3a_3^2a_8}{a_0^6} + \frac{200a_2^3a_4^2a_6}{a_0^6} + \\
& \frac{200a_2^3a_4a_5^2}{a_0^6} + \frac{200a_2^2a_3^3a_7}{a_0^6} + \frac{200a_2a_3^2a_4^3}{a_0^6} - \frac{300a_1^4a_4a_6^2}{a_0^7} - \frac{300a_1^4a_2a_{12}}{a_0^7} - \frac{300a_1^4a_3a_{10}}{a_0^7} - \\
& \frac{300a_1^4a_4^2a_8}{a_0^7} - \frac{300a_1^4a_5a_6}{a_0^7} - \frac{300a_1^4a_2a_7^2}{a_0^7} - \frac{300a_1^2a_2a_4^4}{a_0^7} - \frac{300a_1^2a_2^4a_{10}}{a_0^7} - \frac{300a_1^2a_3^4a_6}{a_0^7} - \\
& \frac{300a_2^4a_3^2a_6}{a_0^7} - \frac{300a_2^2a_3^4a_4}{a_0^7} + \frac{420a_1^5a_3a_6^2}{a_0^8} + \frac{420a_1^5a_2a_{11}}{a_0^8} + \frac{420a_1^5a_3a_9}{a_0^8} + \frac{420a_1^5a_4a_7}{a_0^8} + \\
& \frac{420a_1^2a_5a_8}{a_0^8} + \frac{420a_1a_2^2a_5^2}{a_0^8} + \frac{420a_2^5a_3^2a_4}{a_0^8} - \frac{560a_1^6a_2^2a_{10}}{a_0^9} - \frac{560a_1^6a_3^2a_8}{a_0^9} - \frac{560a_1^6a_4^2a_6}{a_0^9} - \\
& \frac{560a_1^6a_4a_5^2}{a_0^9} - \frac{560a_1^6a_2a_6^2}{a_0^9} - \frac{560a_1^2a_2^6a_6}{a_0^9} + \frac{720a_1^7a_2^2a_9}{a_0^{10}} + \frac{720a_1^7a_3^2a_7}{a_0^{10}} + \frac{720a_1^7a_4^2a_5}{a_0^{10}} + \\
& \frac{720a_1^7a_3a_5^2}{a_0^{10}} + \frac{720a_1^2a_2^7a_4}{a_0^{10}} - \frac{900a_1^8a_2^2a_8}{a_0^{11}} - \frac{900a_1^8a_3^2a_6}{a_0^{11}} - \frac{900a_1^8a_2a_5^2}{a_0^{11}} + \frac{1100a_1^9a_2^2a_7}{a_0^{12}} +
\end{aligned}$$

$$\begin{aligned}
& \frac{1100a_1^9a_3^2a_5}{a_0^{12}} + \frac{1100a_1^9a_3a_4^2}{a_0^{12}} - \frac{1320a_1^{10}a_2^2a_6}{a_0^{13}} - \frac{1320a_1^{10}a_3^2a_4}{a_0^{13}} - \frac{1320a_1^{10}a_2a_4^2}{a_0^{13}} + \\
& \frac{1560a_1^{11}a_2^2a_5}{a_0^{14}} - \frac{1820a_1^{12}a_2^2a_4}{a_0^{15}} - \frac{1820a_1^{12}a_2a_3^2}{a_0^{15}} + \frac{2100a_1^{13}a_2^2a_3}{a_0^{16}} - \frac{400a_1^3a_2^3a_{11}}{a_0^7} - \\
& \frac{400a_1^3a_3^3a_8}{a_0^7} - \frac{400a_1^3a_4^3a_5}{a_0^7} - \frac{400a_1^3a_2a_5^3}{a_0^7} - \frac{400a_2^3a_3^3a_5}{a_0^7} + \frac{700a_1^4a_2^3a_{10}}{a_0^8} + \frac{700a_1^4a_3^3a_7}{a_0^8} + \\
& \frac{700a_1^3a_2^4a_9}{a_0^8} + \frac{700a_1^3a_4^4a_5}{a_0^8} - \frac{1120a_1^5a_3a_4^3}{a_0^9} - \frac{1120a_1^5a_2a_3^3}{a_0^9} - \frac{1120a_1^5a_3^3a_6}{a_0^9} - \frac{1120a_1^3a_2a_3^5}{a_0^9} - \\
& \frac{1120a_1^3a_2^5a_7}{a_0^9} - \frac{1120a_1a_2^5a_3^3}{a_0^9} + \frac{1680a_1^6a_2a_4^3}{a_0^{10}} + \frac{1680a_1^6a_2^3a_8}{a_0^{10}} + \frac{1680a_1^6a_3^3a_5}{a_0^{10}} + \\
& \frac{1680a_1^3a_2^6a_5}{a_0^{10}} - \frac{2400a_1^7a_2^3a_7}{a_0^{11}} - \frac{2400a_1^7a_3^3a_4}{a_0^{11}} - \frac{2400a_1^3a_2^7a_3}{a_0^{11}} + \frac{3300a_1^8a_2^3a_6}{a_0^{12}} - \\
& \frac{4400a_1^9a_2^3a_5}{a_0^{13}} - \frac{4400a_1^9a_2a_3^3}{a_0^{13}} + \frac{5720a_1^{10}a_2^3a_4}{a_0^{14}} - \frac{7280a_1^{11}a_2^3a_3}{a_0^{15}} - \frac{1400a_1^4a_2^4a_8}{a_0^9} - \\
& \frac{1400a_1^4a_3^4a_4}{a_0^9} + \frac{2520a_1^5a_2^4a_7}{a_0^{10}} + \frac{2520a_1^4a_2^5a_6}{a_0^{10}} - \frac{4200a_1^6a_2a_4^4}{a_0^{11}} - \frac{4200a_1^6a_2^4a_6}{a_0^{11}} - \\
& \frac{4200a_1^4a_2^6a_4}{a_0^{11}} + \frac{6600a_1^7a_2^4a_5}{a_0^{12}} - \frac{9900a_1^8a_2^4a_4}{a_0^{13}} + \frac{14300a_1^9a_2^4a_3}{a_0^{14}} - \frac{5040a_1^5a_2^5a_5}{a_0^{11}} + \\
& \frac{9240a_1^6a_2^5a_4}{a_0^{12}} + \frac{9240a_1^5a_2^6a_3}{a_0^{12}} - \frac{15840a_1^7a_2^5a_3}{a_0^{13}} + \frac{300a_1^2a_2^2a_7^2}{a_0^6} + \frac{300a_1^2a_3^2a_6^2}{a_0^6} + \frac{300a_1^2a_4^2a_5^2}{a_0^6} + \\
& \frac{300a_2^2a_3^2a_5^2}{a_0^6} - \frac{600a_1^2a_2^3a_6^2}{a_0^7} - \frac{600a_1^2a_3^2a_4^3}{a_0^7} + \frac{600a_2^3a_3^2a_4^2}{a_0^7} + \frac{1050a_1^2a_2^4a_5^2}{a_0^8} + \frac{1050a_1^4a_2^2a_6^2}{a_0^8} + \\
& \frac{1050a_1^4a_3^2a_5^2}{a_0^8} - \frac{1680a_1^2a_2^5a_4^2}{a_0^9} + \frac{2520a_1^6a_2^2a_5^2}{a_0^{10}} + \frac{2520a_1^6a_3^2a_4^2}{a_0^{10}} + \frac{2520a_1^2a_2^6a_3^2}{a_0^{10}} + \\
& \frac{4950a_1^8a_2^2a_4^2}{a_0^{12}} + \frac{8580a_1^{10}a_2^2a_3^2}{a_0^{14}} + \frac{1400a_1^3a_3^3a_4^2}{a_0^8} + \frac{1400a_1^2a_2^3a_4^3}{a_0^8} - \frac{2800a_1^4a_2^2a_4^3}{a_0^9} - \\
& \frac{2800a_1^4a_2^3a_5^2}{a_0^9} - \frac{2800a_1^2a_3^3a_4^4}{a_0^9} - \frac{8400a_1^6a_2^3a_{n4}}{a_0^{11}} + \frac{13200a_1^7a_2^2a_3^3}{a_0^0} - \frac{19800a_1^8a_2^3a_3^2}{a_0^{13}} + \\
& \frac{6300a_1^4a_2^4a_4^2}{a_0^{10}} + \frac{6300a_1^4a_2^2a_3^4}{a_0^{10}} - \frac{12600a_1^4a_2^5a_3^2}{a_0^{11}} + \frac{23100a_1^6a_2^4a_3^2}{a_0^{12}} + \frac{8400a_1^3a_2^4a_3^3}{a_0^{10}} - \\
& \frac{16800a_1^5a_2^3a_3^3}{a_0^{11}} + \frac{120a_1a_2a_3a_{14}}{a_0^4} + \frac{120a_1a_2a_4a_{13}}{a_0^4} + \frac{120a_1a_2a_5a_{12}}{a_0^4} + \frac{120a_1a_2a_6a_{11}}{a_0^4} + \\
& \frac{120a_1a_2a_7a_{10}}{a_0^4} + \frac{120a_1a_2a_8a_9}{a_0^4} + \frac{120a_1a_3a_4a_{12}}{a_0^4} + \frac{120a_1a_3a_5a_{11}}{a_0^4} + \frac{120a_1a_3a_6a_{10}}{a_0^4} + \\
& \frac{120a_1a_3a_7a_9}{a_0^4} + \frac{120a_1a_4a_5a_{10}}{a_0^4} + \frac{120a_1a_4a_6a_9}{a_0^4} + \frac{120a_1a_4a_7a_8}{a_0^4} + \frac{120a_1a_5a_6a_8}{a_0^4} + \\
& \frac{120a_2a_3a_4a_{11}}{a_0^4} + \frac{120a_2a_3a_5a_{10}}{a_0^4} + \frac{120a_2a_3a_6a_9}{a_0^4} + \frac{120a_2a_3a_7a_8}{a_0^4} + \frac{120a_2a_4a_5a_9}{a_0^4} + \\
& \frac{120a_2a_4a_6a_8}{a_0^4} + \frac{120a_2a_5a_6a_7}{a_0^4} + \frac{120a_3a_4a_5a_8}{a_0^4} + \frac{120a_3a_4a_6a_7}{a_0^4} - \frac{240a_1^2a_2a_3a_{13}}{a_0^5} - \\
& \frac{240a_1^2a_2a_4a_{12}}{a_0^5} - \frac{240a_1^2a_2a_5a_{11}}{a_0^5} - \frac{240a_1^2a_2a_6a_{10}}{a_0^5} - \frac{240a_1^2a_2a_7a_9}{a_0^5} - \frac{240a_1^2a_3a_4a_{11}}{a_0^5} - \\
& \frac{240a_1^2a_3a_5a_{10}}{a_0^5} - \frac{240a_1^2a_3a_6a_9}{a_0^5} - \frac{240a_1^2a_3a_7a_8}{a_0^5} - \frac{240a_1^2a_4a_5a_9}{a_0^5} - \frac{240a_1^2a_4a_6a_8}{a_0^5} - \\
& \frac{240a_1^2a_5a_6a_7}{a_0^5} - \frac{240a_1a_2^2a_3a_{12}}{a_0^5} - \frac{240a_1a_2^2a_4a_{11}}{a_0^5} - \frac{240a_1a_2^2a_5a_{10}}{a_0^5} - \frac{240a_1a_2^2a_6a_9}{a_0^5} - \\
& \frac{240a_1a_2^2a_7a_8}{a_0^5} - \frac{240a_1a_2a_3^2a_{11}}{a_0^5} - \frac{240a_1a_3^2a_4a_9}{a_0^5} - \frac{240a_1a_3^2a_5a_8}{a_0^5} - \frac{240a_1a_3^2a_6a_7}{a_0^5}
\end{aligned}$$

$$\begin{aligned}
& \frac{240a_1a_2a_4^2a_9}{a_0^5} - \frac{240a_1a_3a_4^2a_8}{a_0^5} - \frac{240a_1a_4^2a_5a_6}{a_0^5} - \frac{240a_1a_2a_5^2a_7}{a_0^5} - \frac{240a_1a_3a_5^2a_6}{a_0^5} - \\
& \frac{240a_1a_2a_5a_6^2}{a_0^5} - \frac{240a_1a_3a_4a_6^2}{a_0^5} - \frac{240a_1a_2a_3a_7^2}{a_0^5} - \frac{240a_2^2a_3a_4a_9}{a_0^5} - \frac{240a_2^2a_3a_5a_8}{a_0^5} - \\
& \frac{240a_2^2a_3a_6a_7}{a_0^5} - \frac{240a_2^2a_4a_5a_7}{a_0^5} - \frac{240a_2a_3^2a_4a_8}{a_0^5} - \frac{240a_2a_3^2a_5a_7}{a_0^5} - \frac{240a_2a_3a_4^2a_7}{a_0^5} + \\
& \frac{400a_1^3a_2a_3a_{12}}{a_0^6} + \frac{400a_1^3a_2a_4a_{11}}{a_0^6} + \frac{400a_1^3a_2a_5a_{10}}{a_0^6} + \frac{400a_1^3a_2a_6a_9}{a_0^6} + \frac{400a_1^3a_2a_7a_8}{a_0^6} + \\
& \frac{400a_1^3a_3a_4a_{10}}{a_0^6} + \frac{400a_1^3a_3a_5a_9}{a_0^6} + \frac{400a_1^3a_3a_6a_8}{a_0^6} + \frac{400a_1^3a_4a_5a_8}{a_0^6} + \frac{400a_1^3a_4a_6a_7}{a_0^6} + \\
& \frac{400a_1a_2^3a_3a_{10}}{a_0^6} + \frac{400a_1a_2^3a_4a_9}{a_0^6} + \frac{400a_1a_2^3a_5a_8}{a_0^6} + \frac{400a_1a_2^3a_6a_7}{a_0^6} + \frac{400a_1a_2a_3^3a_8}{a_0^6} + \\
& \frac{400a_1a_3^3a_4a_6}{a_0^6} + \frac{400a_1a_2a_4^3a_5}{a_0^6} + \frac{400a_2^3a_3a_4a_7}{a_0^6} + \frac{400a_2^3a_3a_5a_6}{a_0^6} + \frac{400a_2a_3^3a_4a_5}{a_0^6} - \\
& \frac{600a_1^4a_2a_3a_{11}}{a_0^7} - \frac{600a_1^4a_2a_4a_{10}}{a_0^7} - \frac{600a_1^4a_2a_5a_9}{a_0^7} - \frac{600a_1^4a_2a_6a_8}{a_0^7} - \frac{600a_1^4a_3a_4a_9}{a_0^7} - \\
& \frac{600a_1^4a_3a_5a_8}{a_0^7} - \frac{600a_1^4a_3a_6a_7}{a_0^7} - \frac{600a_1^4a_4a_5a_7}{a_0^7} - \frac{600a_1a_2^4a_3a_8}{a_0^7} - \frac{600a_1a_2^4a_4a_7}{a_0^7} - \\
& \frac{600a_1a_2^4a_5a_6}{a_0^7} - \frac{600a_1a_2a_3^4a_5}{a_0^7} - \frac{600a_2^4a_3a_4a_5}{a_0^7} + \frac{840a_1^5a_2a_3a_{10}}{a_0^8} + \frac{840a_1^5a_2a_4a_9}{a_0^8} + \\
& \frac{840a_1^5a_2a_5a_8}{a_0^8} + \frac{840a_1^5a_2a_6a_7}{a_0^8} + \frac{840a_1^5a_3a_4a_8}{a_0^8} + \frac{840a_1^5a_3a_5a_7}{a_0^8} + \frac{840a_1^5a_4a_5a_6}{a_0^8} + \\
& \frac{840a_1a_2^5a_3a_6}{a_0^8} + \frac{840a_1a_2^5a_4a_5}{a_0^8} - \frac{1120a_1^6a_2a_3a_9}{a_0^9} - \frac{1120a_1^6a_2a_4a_8}{a_0^9} - \frac{1120a_1^6a_2a_5a_7}{a_0^9} - \\
& \frac{1120a_1^6a_3a_4a_7}{a_0^9} - \frac{1120a_1^6a_3a_5a_6}{a_0^9} - \frac{1120a_1a_2^6a_3a_4}{a_0^9} + \frac{1440a_1^7a_2a_3a_8}{a_0^{10}} + \frac{1440a_1^7a_2a_4a_7}{a_0^{10}} + \\
& \frac{1440a_1^7a_2a_5a_6}{a_0^{10}} + \frac{1440a_1^7a_3a_4a_6}{a_0^{10}} - \frac{1800a_1^8a_2a_3a_7}{a_0^{11}} - \frac{1800a_1^8a_2a_4a_6}{a_0^{11}} - \frac{1800a_1^8a_3a_4a_5}{a_0^{11}} + \\
& \frac{2200a_1^9a_2a_3a_6}{a_0^{12}} + \frac{2200a_1^9a_2a_4a_5}{a_0^{12}} - \frac{2640a_1^{10}a_2a_3a_5}{a_0^{13}} + \frac{3120a_1^{11}a_2a_3a_4}{a_0^{14}} + \frac{600a_1^2a_2^2a_3a_{11}}{a_0^6} + \\
& \frac{600a_1^2a_2^2a_4a_{10}}{a_0^6} + \frac{600a_1^2a_2^2a_5a_9}{a_0^6} + \frac{600a_1^2a_2^2a_6a_8}{a_0^6} + \frac{600a_1^2a_2a_3^2a_{10}}{a_0^6} + \frac{600a_1^2a_2^2a_4a_8}{a_0^6} + \\
& \frac{600a_1^2a_3^2a_5a_7}{a_0^6} + \frac{600a_1^2a_2a_4^2a_8}{a_0^6} + \frac{600a_1^2a_3a_4^2a_7}{a_0^6} + \frac{600a_1^2a_2a_5^2a_6}{a_0^6} + \frac{600a_1^2a_2a_4a_6^2}{a_0^6} + \\
& \frac{600a_1a_2^2a_3^2a_9}{a_0^6} + \frac{600a_1a_2^2a_4^2a_7}{a_0^6} + \frac{600a_1a_2^2a_3a_6^2}{a_0^6} + \frac{600a_1a_2^2a_4^2a_5}{a_0^6} + \frac{600a_2^2a_3^2a_4a_6}{a_0^6} + \\
& \frac{600a_2^2a_3a_4^2a_5}{a_0^6} - \frac{1200a_1^3a_2^2a_3a_{10}}{a_0^7} - \frac{1200a_1^3a_2^2a_4a_9}{a_0^7} - \frac{1200a_1^3a_2^2a_5a_8}{a_0^7} - \frac{1200a_1^3a_2^2a_6a_7}{a_0^7} - \\
& \frac{1200a_1^3a_2a_3^2a_9}{a_0^7} - \frac{1200a_1^3a_2^2a_4a_7}{a_0^7} - \frac{1200a_1^3a_3^2a_5a_6}{a_0^7} - \frac{1200a_1^3a_2a_4^2a_7}{a_0^7} - \frac{1200a_1^3a_3a_4^2a_6}{a_0^7} - \\
& \frac{1200a_1^3a_3a_4a_5^2}{a_0^7} - \frac{1200a_1^3a_2a_3a_6^2}{a_0^7} - \frac{1200a_1^2a_2^3a_3a_9}{a_0^7} - \frac{1200a_1^2a_2^3a_4a_8}{a_0^7} - \frac{1200a_1^2a_2^3a_5a_7}{a_0^7} - \\
& \frac{1200a_1^2a_2a_3^3a_7}{a_0^7} - \frac{1200a_1^2a_3^3a_4a_5}{a_0^7} - \frac{1200a_1a_2^3a_3^2a_7}{a_0^7} - \frac{1200a_1a_2^3a_4^2a_5}{a_0^7} - \frac{1200a_1a_2^3a_3a_6^2}{a_0^7} - \\
& \frac{1200a_1a_2^2a_3a_4^3}{a_0^7} - \frac{12000a_1a_2^3a_3a_5^2}{a_0^8} - \frac{12000a_1a_2a_3^3a_4^2}{a_0^8} + \frac{2100a_1^4a_2^2a_3a_9}{a_0^8} + \frac{2100a_1^4a_2^2a_4a_8}{a_0^8} + \\
& \frac{2100a_1^4a_2^2a_5a_7}{a_0^8} + \frac{2100a_1^4a_2a_3^2a_8}{a_0^8} + \frac{2100a_1^4a_2^3a_4a_6}{a_0^8} + \frac{2100a_1^4a_2a_4^2a_6}{a_0^8} + \frac{2100a_1^4a_3a_4^2a_5}{a_0^8} +
\end{aligned}$$

$$\begin{aligned}
& \frac{2100a_1^4a_2a_4a_5^2}{a_0^8} + \frac{2100a_1^2a_2^4a_3a_7}{a_0^8} + \frac{2100a_1^2a_2^4a_4a_6}{a_0^8} + \frac{2100a_1^2a_2a_3^4a_4}{a_0^8} + \frac{2100a_1a_2^4a_3^2a_5}{a_0^8} + \\
& \frac{2100a_1a_2^4a_3a_4^2}{a_0^8} - \frac{3360a_1^5a_2^2a_3a_8}{a_0^9} - \frac{3360a_1^5a_2^2a_4a_7}{a_0^9} - \frac{3360a_1^5a_2^2a_5a_6}{a_0^9} - \frac{3360a_1^5a_2a_3^2a_7}{a_0^9} - \\
& \frac{3360a_1^5a_3^2a_4a_5}{a_0^9} - \frac{3360a_1^5a_2a_4^2a_5}{a_0^9} - \frac{3360a_1^5a_2a_3a_5^2}{a_0^9} - \frac{3360a_1^2a_2^5a_3a_5}{a_0^9} + \frac{5040a_1^6a_2^2a_3a_7}{a_0^{10}} + \\
& \frac{5040a_1^6a_2^2a_4a_6}{a_0^{10}} + \frac{5040a_1^6a_2a_3^2a_6}{a_0^{10}} - \frac{7200a_1^7a_2^2a_3a_6}{a_0^{11}} - \frac{7200a_1^7a_2^2a_4a_5}{a_0^{11}} - \frac{7200a_1^7a_2a_3^2a_5}{a_0^{11}} - \\
& \frac{7200a_1^7a_2a_3a_4^2}{a_0^{11}} + \frac{9900a_1^8a_2^2a_3a_5}{a_0^{12}} + \frac{9900a_1^8a_2a_3^2a_4}{a_0^{12}} - \frac{13200a_1^9a_2^2a_3a_4}{a_0^{13}} + \frac{2800a_1^3a_2^3a_3a_8}{a_0^8} + \\
& \frac{2800a_1^3a_2^3a_4a_7}{a_0^8} + \frac{2800a_1^3a_2^3a_5a_6}{a_0^8} + \frac{2800a_1^3a_2a_3^3a_6}{a_0^8} + \frac{2800a_1^3a_2a_3a_4^3}{a_0^8} + \frac{2800a_1a_2^3a_3^3a_4}{a_0^8} - \\
& \frac{5600a_1^4a_2^3a_3a_7}{a_0^9} - \frac{5600a_1^4a_2^3a_4a_6}{a_0^9} - \frac{5600a_1^4a_2a_3^3a_5}{a_0^9} - \frac{5600a_1^3a_2^4a_3a_6}{a_0^9} - \frac{5600a_1^3a_2^4a_4a_5}{a_0^9} + \\
& \frac{10080a_1^5a_2^3a_3a_6}{a_0^{10}} + \frac{10080a_1^5a_2^3a_4a_5}{a_0^{10}} + \frac{10080a_1^5a_2a_3^3a_4}{a_0^{10}} + \frac{10080a_1^3a_2^5a_3a_4}{a_0^{10}} - \\
& \frac{16800a_1^6a_2^3a_3a_5}{a_0^{11}} + \frac{26400a_1^7a_2^3a_3a_4}{a_0^{12}} + \frac{12600a_1^4a_2^4a_3a_5}{a_0^{10}} - \frac{25200a_1^5a_2^4a_3a_4}{a_0^{11}} - \\
& \frac{1800a_1^2a_2^2a_3^2a_8}{a_0^7} - \frac{1800a_1^2a_2^2a_4^2a_6}{a_0^7} - \frac{1800a_1^2a_2^2a_4a_5^2}{a_0^7} - \frac{1800a_1^2a_2a_3^2a_5^2}{a_0^7} + \frac{4200a_1^3a_2^2a_3^2a_7}{a_0^8} + \\
& \frac{4200a_1^3a_2^2a_4^2a_5}{a_0^8} + \frac{4200a_1^3a_2^2a_3a_5^2}{a_0^8} + \frac{4200a_1^2a_2^3a_3^2a_6}{a_0^8} + \frac{4200a_1^2a_2^2a_3^3a_5}{a_0^8} - \frac{8400a_1^4a_2^2a_3^2a_6}{a_0^9} - \\
& \frac{8400a_1^4a_2a_3^2a_4^2}{a_0^9} - \frac{8400a_1^2a_2^4a_3^2a_4}{a_0^9} + \frac{15120a_1^5a_2^2a_3^2a_5}{a_0^{10}} + \frac{15120a_1^5a_2^2a_3a_4^2}{a_0^{10}} - \\
& \frac{25200a_1^6a_2^2a_3^2a_4}{a_0^{11}} - \frac{11200a_1^3a_2^3a_3^2a_5}{a_0^9} - \frac{11200a_1^3a_2^3a_3a_4^2}{a_0^9} - \frac{11200a_1^3a_2^2a_3^3a_4}{a_0^9} + \\
& \frac{25200a_1^4a_2^3a_3^2a_4}{a_0^{10}} + \frac{6300a_1^2a_2^2a_3^2a_4^2}{a_0^8} - \frac{480a_1a_2a_3a_4a_{10}}{a_0^5} - \frac{480a_1a_2a_3a_5a_9}{a_0^5} - \\
& \frac{480a_1a_2a_3a_6a_8}{a_0^5} - \frac{480a_1a_2a_4a_5a_8}{a_0^5} - \frac{480a_1a_2a_4a_6a_7}{a_0^5} - \frac{480a_1a_3a_4a_5a_7}{a_0^5} - \\
& \frac{480a_2a_3a_4a_5a_6}{a_0^5} + \frac{1200a_1^2a_2a_3a_4a_9}{a_0^6} + \frac{1200a_1^2a_2a_3a_5a_8}{a_0^6} + \frac{1200a_1^2a_2a_3a_6a_7}{a_0^6} + \\
& \frac{1200a_1^2a_2a_4a_5a_7}{a_0^6} + \frac{1200a_1^2a_3a_4a_5a_6}{a_0^6} + \frac{1200a_1a_2^2a_3a_4a_8}{a_0^6} + \frac{1200a_1a_2^2a_3a_5a_7}{a_0^6} + \\
& \frac{1200a_1a_2^2a_4a_5a_6}{a_0^6} + \frac{1200a_1a_2a_3^2a_4a_7}{a_0^6} + \frac{1200a_1a_2a_3^2a_5a_6}{a_0^6} + \frac{1200a_1a_2a_3a_4^2a_6}{a_0^6} + \\
& \frac{1200a_1a_2a_3a_4a_5^2}{a_0^6} - \frac{2400a_1^3a_2a_3a_4a_8}{a_0^7} - \frac{2400a_1^3a_2a_3a_5a_7}{a_0^7} - \frac{2400a_1^3a_2a_4a_5a_6}{a_0^7} - \\
& \frac{2400a_1a_2^3a_3a_4a_6}{a_0^7} + \frac{4200a_1^4a_2a_3a_4a_7}{a_0^8} + \frac{4200a_1^4a_2a_3a_5a_6}{a_0^8} - \frac{6720a_1^5a_2a_3a_4a_6}{a_0^9} + \\
& \frac{10080a_1^6a_2a_3a_4a_5}{a_0^{10}} - \frac{3600a_1^2a_2^2a_3a_4a_7}{a_0^7} - \frac{3600a_1^2a_2^2a_3a_5a_6}{a_0^7} - \frac{3600a_1^2a_2a_3^2a_4a_6}{a_0^7} - \\
& \frac{3600a_1^2a_2a_3a_4^2a_5}{a_0^7} - \frac{3600a_1a_2^2a_3^2a_4a_5}{a_0^7} + \frac{8400a_1^3a_2^2a_3a_4a_6}{a_0^8} + \frac{8400a_1^3a_2a_3^2a_4a_5}{a_0^8} + \\
& \frac{8400a_1^2a_2^3a_3a_4a_5}{a_0^8} - \frac{16800a_1^4a_2^2a_3a_4a_5}{a_0^9}
\end{aligned}$$

Tableau 2: Tabulaire inverse

$k$	$P(n)$
0	1
1	$\frac{1}{2}(n - 1)$
2	$\frac{1}{12}(n - 2)(3n - 1)$
3	$\frac{1}{8}(n - 3)(n - 1)n$
4	$\frac{1}{240}(n - 4)(15n^3 - 30n^2 + 5n + 2)$
5	$\frac{1}{96}(n - 5)(n - 1)n(3n^2 - 7n - 2)$
6	$\frac{1}{4032}(n - 6)(63n^5 - 315n^4 + 315n^3 + 91n^2 - 42n - 16)$
7	$\frac{1}{1152}(n - 7)(n - 1)n(9n^4 - 54n^3 + 51n^2 + 58n + 16)$
8	$\frac{1}{34560}(n - 8)(135n^7 - 1260n^6 + 3150n^5 - 840n^4 - 2345n^3 - 540n^2 + 404n + 1181)$
9	$\frac{1}{7680}(n - 9)(n - 1)n(15n^6 - 165n^5 + 465n^4 + 17n^3 - 648n^2 - 548n - 144)$

Tableau 3: Tabulaire suite