ID	Expression	Analytical sum
1	$\sum_{n=1}^{\infty} 1\,\epsilon^{-1+n}\,P[n,0]$	$\dfrac{1-w}{w\,\epsilon}$
2	$\sum_{n=1}^{\infty} n\,\epsilon^{-1+n}\,P[n,0]$	$\dfrac{c-\epsilon}{w^3}$
3	$\sum_{n=1}^{\infty} n^2\,\epsilon^{-1+n}\,P[n,0]$	$\dfrac{c+\left(-2+c^2\right)\epsilon+\epsilon^2\,(-c+\epsilon)}{w^5}$
4	$\sum_{n=1}^{\infty} n^3\,\epsilon^{-1+n}\,P[n,0]$	$\dfrac{c+\left(-4+5c^2\right)\epsilon+c\left(-9+c^2\right)\epsilon^2+2\left(5-c^2\right)\epsilon^3-\epsilon^4\,(c+\epsilon)}{w^7}$
5	$\sum_{n=1}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,0]}{n}$	$\dfrac{\log\left[\frac{2}{1+w-c\,\epsilon}\right]}{\epsilon}$
6	$\sum_{n=2}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,0]}{-1+n}$	$\dfrac{1-w}{\epsilon}+c\,(-1+\log[2])-c\,\log[1+w-c\,\epsilon]$
7	$\sum_{n=1}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,0]}{1+n}$	$-\dfrac{1}{\epsilon}+\dfrac{\log\left[\frac{-c+\epsilon+\sqrt{1-2c\,\epsilon+\epsilon^2}}{1-c}\right]}{\epsilon^2}$
8	$\sum_{n=1}^{\infty} n^2\,\epsilon^{-1+n}\,P[n,1]$	$-\dfrac{5\,s\,\epsilon\,(-c+\epsilon)\left(1+c\,\epsilon-2\,\epsilon^2\right)}{w^7}-\dfrac{s\left(-2+w^2+5\,\epsilon^2\right)}{w^5}$
9	$\sum_{n=1}^{\infty} n\,\epsilon^{-1+n}\,P[n,1]$	$\dfrac{s\left(1+c\,\epsilon-2\,\epsilon^2\right)}{w^5}$
10	$\sum_{n=1}^{\infty}\epsilon^{-1+n}\,P[n,1]$	$\dfrac{s}{w^3}$
11	$\sum_{n=1}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,1]}{n}$	$\dfrac{s\,(1+w)}{w\,(1+w-c\,\epsilon)}$
12	$\sum_{n=1}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,1]}{1+n}$	$\dfrac{s}{w\,(1+w-c\,\epsilon)}$
13	$\sum_{n=1}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,1]}{n^2}$	$\dfrac{\log\left[\frac{1+c}{c+w-\epsilon}\right]+c\,\log\left[\frac{1}{2}(1+w-c\,\epsilon)\right]}{s\,\epsilon}$
14	$\sum_{n=2}^{\infty} n\,\epsilon^{-1+n}\,P[n,2]$	$\dfrac{6\,s^2}{w^5}\epsilon+\dfrac{15\,s^2\,(c-\epsilon)\,\epsilon^2}{w^7}$
15	$\sum_{n=2}^{\infty}\epsilon^{-1+n}\,P[n,2]$	$\dfrac{3\,s^2\,\epsilon}{w^5}$
16	$\sum_{n=2}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,2]}{n}$	$\dfrac{2\,c\,(1+w)}{w\,(1+w-c\,\epsilon)}+\dfrac{-1+w^3+c\,\epsilon}{w^3\,\epsilon}$
17	$\sum_{n=2}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,2]}{-1+n}$	$\dfrac{s^2\,(1+w)\,\epsilon\left((1+w)\left(1+2w^2\right)-c\left(1-w+w^2\right)\epsilon\right)}{w^3\,(1+w-c\,\epsilon)^2}$
18	$\sum_{n=2}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,2]}{1+n}$	$\dfrac{c\,(-1+w)\,w+\left(s^2+w\right)\epsilon}{w^3\,(1+w-c\,\epsilon)}$
19	$\sum_{n=2}^{\infty}\dfrac{\epsilon^{-1+n}\,P[n,2]}{n^2}$	$\dfrac{1}{\epsilon}-\dfrac{1}{w\,\epsilon}+\dfrac{\log[2]}{\epsilon}-\dfrac{2\,\log[2]}{s^2\,\epsilon}+\dfrac{2\,c\,\log[1+c]}{s^2\,\epsilon}-\dfrac{2\,c\,\log[c+w-\epsilon]}{s^2\,\epsilon}-\dfrac{\log[1+w-c\,\epsilon]}{\epsilon}+\dfrac{2\,\log[1+w-c\,\epsilon]}{s^2\,\epsilon}$