

Pensieve header: Computing the Kauffman bracket.

$K = X[1, 5, 2, 4] X[5, 3, 6, 2] X[3, 1, 4, 6]$

$X[1, 5, 2, 4] X[3, 1, 4, 6] X[5, 3, 6, 2]$

$t1 = \text{Expand}[K /. X[i_, j_, k_, l_] \Rightarrow A p[i, l] p[j, k] + B p[i, j] p[k, l]]$

$A^2 B p[1, 4] p[1, 5] p[2, 4] p[3, 6]^2 p[5, 2] +$
 $A B^2 p[1, 5] p[2, 4] p[3, 1] p[3, 6] p[4, 6] p[5, 2] +$
 $A^3 p[1, 4]^2 p[3, 6]^2 p[5, 2]^2 + A^2 B p[1, 4] p[3, 1] p[3, 6] p[4, 6] p[5, 2]^2 +$
 $A B^2 p[1, 4] p[1, 5] p[2, 4] p[3, 6] p[5, 3] p[6, 2] +$
 $B^3 p[1, 5] p[2, 4] p[3, 1] p[4, 6] p[5, 3] p[6, 2] +$
 $A^2 B p[1, 4]^2 p[3, 6] p[5, 2] p[5, 3] p[6, 2] +$
 $A B^2 p[1, 4] p[3, 1] p[4, 6] p[5, 2] p[5, 3] p[6, 2]$

$t2 = t1 //. \{p[i_, j_] p[j_, k_] \Rightarrow p[i, k]\}$

$A B^2 p[1, 4]^2 + B^3 p[2, 2] p[3, 3] + A B^2 p[3, 6]^2 + A^2 B p[1, 4]^2 p[3, 6]^2 + A B^2 p[5, 2]^2 +$
 $A^2 B p[1, 4]^2 p[5, 2]^2 + A^2 B p[3, 6]^2 p[5, 2]^2 + A^3 p[1, 4]^2 p[3, 6]^2 p[5, 2]^2$

$t3 = t2 /. \{p[i_, i_] \Rightarrow d, p[i_, j_] ^2 \Rightarrow d\}$

$3 A B^2 d + 3 A^2 B d^2 + B^3 d^2 + A^3 d^3$

$t4 = \text{Simplify}[t3/d /. \{B \rightarrow 1/A, d \rightarrow (-A^2 - 1/A^2)\}]$

$-\frac{1}{A^5} - A^3 + A^7$

<< KnotTheory`

Loading KnotTheory` version of February 5, 2013, 3:48:46.4762.

Read more at <http://katlas.org/wiki/KnotTheory>.

Jones[Knot[3, 1]][q]

KnotTheory::loading: Loading precomputed data in Jones4Knots`.

$-\frac{1}{q^4} + \frac{1}{q^3} + \frac{1}{q}$

Ks = AllKnots[{0, 10}]

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{Knot[0, 1], Knot[3, 1], Knot[4, 1], Knot[5, 1], Knot[5, 2], Knot[6, 1], Knot[6, 2],
Knot[6, 3], Knot[7, 1], Knot[7, 2], Knot[7, 3], Knot[7, 4], Knot[7, 5], Knot[7, 6],
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Length[Ks]

250

Js = Jones[#][q] & /@ Ks

$$\begin{aligned}
 & \left\{ 1, -\frac{1}{q^4} + \frac{1}{q^3} + \frac{1}{q}, 1 + \frac{1}{q^2} - \frac{1}{q} - q + q^2, -\frac{1}{q^7} + \frac{1}{q^6} - \frac{1}{q^5} + \frac{1}{q^4} + \frac{1}{q^2}, -\frac{1}{q^6} + \frac{1}{q^5} - \frac{1}{q^4} + \frac{2}{q^3} - \frac{1}{q^2} + \frac{1}{q}, \right. \\
 & 2 + \frac{1}{q^4} - \frac{1}{q^3} + \frac{1}{q^2} - \frac{2}{q} - q + q^2, -1 + \frac{1}{q^5} - \frac{2}{q^4} + \frac{2}{q^3} - \frac{2}{q^2} + \frac{2}{q} + q, 3 - \frac{1}{q^3} + \frac{2}{q^2} - \frac{2}{q} - 2q + 2q^2 - q^3, \\
 & -\frac{1}{q^{10}} + \frac{1}{q^9} - \frac{1}{q^8} + \frac{1}{q^7} - \frac{1}{q^6} + \frac{1}{q^5} + \frac{1}{q^3}, -\frac{1}{q^8} + \frac{1}{q^7} - \frac{1}{q^6} + \frac{2}{q^5} - \frac{2}{q^4} + \frac{2}{q^3} - \frac{1}{q^2} + \frac{1}{q}, \\
 & q^2 - q^3 + 2q^4 - 2q^5 + 3q^6 - 2q^7 + q^8 - q^9, q - 2q^2 + 3q^3 - 2q^4 + 3q^5 - 2q^6 + q^7 - q^8, \\
 & -\frac{1}{q^9} + \frac{2}{q^8} - \frac{3}{q^7} + \frac{3}{q^6} - \frac{3}{q^5} + \frac{1}{q^4} - \frac{1}{q^3} + \frac{1}{q^2}, -2 - \frac{1}{q^6} + \frac{2}{q^5} - \frac{3}{q^4} + \frac{4}{q^3} - \frac{3}{q^2} + \frac{3}{q} + q, \\
 & 4 - \frac{1}{q^3} + \frac{3}{q^2} - \frac{3}{q} - 4q + 3q^2 - 2q^3 + q^4, 2 + \frac{1}{q^6} - \frac{1}{q^5} + \frac{1}{q^4} - \frac{2}{q^3} + \frac{2}{q^2} - \frac{2}{q} - q + q^2, \\
 & 1 + \frac{1}{q^8} - \frac{2}{q^7} + \frac{2}{q^6} - \frac{3}{q^5} + \frac{3}{q^4} - \frac{2}{q^3} + \frac{2}{q^2} - \frac{1}{q}, 3 + \frac{1}{q^4} - \frac{1}{q^3} + \frac{2}{q^2} - \frac{3}{q} - 3q + 2q^2 - q^3 + q^4, \\
 & -3 + \frac{1}{q^5} - \frac{2}{q^4} + \frac{3}{q^3} - \frac{3}{q^2} + \frac{3}{q} + 2q - q^2 + q^3, 1 - q + 3q^2 - 3q^3 + 3q^4 - 4q^5 + 3q^6 - 2q^7 + q^8, \\
 & -1 + \frac{1}{q^7} - \frac{2}{q^6} + \frac{3}{q^5} - \frac{4}{q^4} + \frac{4}{q^3} - \frac{4}{q^2} + \frac{3}{q} + q, -2 - \frac{1}{q^2} + \frac{2}{q} + 4q - 4q^2 + 4q^3 - 3q^4 + 2q^5 - q^6, \\
 & 5 - \frac{1}{q^3} + \frac{2}{q^2} - \frac{3}{q} - 4q + 4q^2 - 3q^3 + 2q^4 - q^5, 5 + \frac{1}{q^4} - \frac{2}{q^3} + \frac{3}{q^2} - \frac{4}{q} - 4q + 3q^2 - 2q^3 + q^4, \\
 & -3 - \frac{1}{q^2} + \frac{2}{q} + 5q - 4q^2 + 5q^3 - 4q^4 + 2q^5 - q^6, -2 + \frac{1}{q^7} - \frac{2}{q^6} + \frac{3}{q^5} - \frac{5}{q^4} + \frac{5}{q^3} - \frac{4}{q^2} + \frac{4}{q} + q, \\
 & 5 + \frac{1}{q^4} - \frac{2}{q^3} + \frac{4}{q^2} - \frac{5}{q} - 5q + 4q^2 - 2q^3 + q^4, 5 - \frac{1}{q^3} + \frac{3}{q^2} - \frac{4}{q} - 5q + 5q^2 - 3q^3 + 2q^4 - q^5, \\
 & -2 + \frac{1}{q^7} - \frac{3}{q^6} + \frac{4}{q^5} - \frac{5}{q^4} + \frac{6}{q^3} - \frac{5}{q^2} + \frac{4}{q} + q, \frac{1}{q^{10}} - \frac{3}{q^9} + \frac{4}{q^8} - \frac{6}{q^7} + \frac{6}{q^6} - \frac{5}{q^5} + \frac{5}{q^4} - \frac{2}{q^3} + \frac{1}{q^2}, \\
 & -4 - \frac{1}{q^6} + \frac{3}{q^5} - \frac{5}{q^4} + \frac{6}{q^3} - \frac{6}{q^2} + \frac{6}{q} + 3q - q^2, 7 + \frac{1}{q^4} - \frac{3}{q^3} + \frac{5}{q^2} - \frac{6}{q} - 6q + 5q^2 - 3q^3 + q^4, \\
 & 9 + \frac{1}{q^4} - \frac{4}{q^3} + \frac{6}{q^2} - \frac{7}{q} - 7q + 6q^2 - 4q^3 + q^4, q^3 + q^5 - q^8, 2 - \frac{1}{q^5} + \frac{1}{q^4} - \frac{1}{q^3} + \frac{2}{q^2} - \frac{1}{q} - q, \\
 & \frac{1}{q^7} - \frac{2}{q^6} + \frac{2}{q^5} - \frac{3}{q^4} + \frac{3}{q^3} - \frac{2}{q^2} + \frac{2}{q}, -\frac{1}{q^{13}} + \frac{1}{q^{12}} - \frac{1}{q^{11}} + \frac{1}{q^{10}} - \frac{1}{q^9} + \frac{1}{q^8} - \frac{1}{q^7} + \frac{1}{q^6} + \frac{1}{q^4}, \\
 & -\frac{1}{q^{10}} + \frac{1}{q^9} - \frac{1}{q^8} + \frac{2}{q^7} - \frac{2}{q^6} + \frac{2}{q^5} - \frac{2}{q^4} + \frac{1}{q^3} - \frac{1}{q^2} + \frac{1}{q}, \\
 & q^3 - q^4 + 2q^5 - 2q^6 + 3q^7 - 3q^8 + 3q^9 - 2q^{10} + q^{11} - q^{12}, \\
 & -\frac{1}{q^{11}} + \frac{1}{q^{10}} - \frac{2}{q^9} + \frac{3}{q^8} - \frac{3}{q^7} + \frac{4}{q^6} - \frac{3}{q^5} + \frac{2}{q^4} - \frac{1}{q^3} + \frac{1}{q^2}, \\
 & q - 2q^2 + 3q^3 - 3q^4 + 4q^5 - 3q^6 + 3q^7 - 2q^8 + q^9 - q^{10}, \\
 & -\frac{1}{q^{12}} + \frac{2}{q^{11}} - \frac{3}{q^{10}} + \frac{4}{q^9} - \frac{5}{q^8} + \frac{4}{q^7} - \frac{3}{q^6} + \frac{3}{q^5} - \frac{1}{q^4} + \frac{1}{q^3}, \\
 \end{aligned}$$

$$\begin{aligned}
& -\frac{1}{q^{11}} + \frac{2}{q^{10}} - \frac{3}{q^9} + \frac{4}{q^8} - \frac{5}{q^7} + \frac{5}{q^6} - \frac{4}{q^5} + \frac{3}{q^4} - \frac{1}{q^3} + \frac{1}{q^2}, \\
& -4 - \frac{1}{q^6} + \frac{2}{q^5} - \frac{3}{q^4} + \frac{5}{q^3} - \frac{5}{q^2} + \frac{5}{q} + 3q - 2q^2 + q^3, \\
& -\frac{1}{q^{12}} + \frac{2}{q^{11}} - \frac{4}{q^{10}} + \frac{5}{q^9} - \frac{5}{q^8} + \frac{5}{q^7} - \frac{4}{q^6} + \frac{3}{q^5} - \frac{1}{q^4} + \frac{1}{q^3}, \\
& q^2 - 2q^3 + 4q^4 - 5q^5 + 6q^6 - 5q^7 + 5q^8 - 3q^9 + q^{10} - q^{11}, \\
& 1 - 2q + 3q^2 - 4q^3 + 6q^4 - 5q^5 + 5q^6 - 4q^7 + 2q^8 - q^9, \\
& -2 - \frac{1}{q^8} + \frac{2}{q^7} - \frac{3}{q^6} + \frac{5}{q^5} - \frac{6}{q^4} + \frac{6}{q^3} - \frac{5}{q^2} + \frac{4}{q} + q, \\
& q^2 - 2q^3 + 4q^4 - 5q^5 + 7q^6 - 6q^7 + 5q^8 - 4q^9 + 2q^{10} - q^{11}, \\
& 6 - \frac{1}{q^3} + \frac{3}{q^2} - \frac{4}{q} - 6q + 6q^2 - 5q^3 + 3q^4 - 2q^5 + q^6, \\
& -2 + \frac{1}{q} + 4q - 6q^2 + 7q^3 - 6q^4 + 6q^5 - 4q^6 + 2q^7 - q^8, \\
& q^3 - q^4 + 4q^5 - 5q^6 + 6q^7 - 7q^8 + 6q^9 - 5q^{10} + 3q^{11} - q^{12}, \\
& -5 - \frac{1}{q^6} + \frac{3}{q^5} - \frac{4}{q^4} + \frac{6}{q^3} - \frac{7}{q^2} + \frac{6}{q} + 4q - 2q^2 + q^3, \\
& -\frac{1}{q^{11}} + \frac{2}{q^{10}} - \frac{4}{q^9} + \frac{6}{q^8} - \frac{7}{q^7} + \frac{7}{q^6} - \frac{6}{q^5} + \frac{5}{q^4} - \frac{2}{q^3} + \frac{1}{q^2}, \\
& 7 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{4}{q^3} + \frac{6}{q^2} - \frac{7}{q} - 6q + 4q^2 - 2q^3 + q^4, \quad 1 - \frac{1}{q^9} + \frac{3}{q^8} - \frac{5}{q^7} + \frac{6}{q^6} - \frac{7}{q^5} + \frac{7}{q^4} - \frac{5}{q^3} + \frac{4}{q^2} - \frac{2}{q}, \\
& -3 + \frac{1}{q} + 5q - 6q^2 + 8q^3 - 7q^4 + 6q^5 - 4q^6 + 2q^7 - q^8, \\
& -6 + \frac{1}{q^3} - \frac{2}{q^2} + \frac{4}{q} + 7q - 7q^2 + 7q^3 - 5q^4 + 3q^5 - q^6, \\
& -\frac{1}{q^{11}} + \frac{3}{q^{10}} - \frac{5}{q^9} + \frac{6}{q^8} - \frac{8}{q^7} + \frac{8}{q^6} - \frac{6}{q^5} + \frac{5}{q^4} - \frac{2}{q^3} + \frac{1}{q^2}, \\
& 8 - \frac{1}{q^5} + \frac{2}{q^4} - \frac{4}{q^3} + \frac{7}{q^2} - \frac{7}{q} - 7q + 5q^2 - 3q^3 + q^4, \quad -2 - \frac{1}{q^8} + \frac{3}{q^7} - \frac{5}{q^6} + \frac{7}{q^5} - \frac{8}{q^4} + \frac{8}{q^3} - \frac{7}{q^2} + \frac{5}{q} + q, \\
& -4 - \frac{1}{q^2} + \frac{3}{q} + 7q - 8q^2 + 8q^3 - 7q^4 + 5q^5 - 3q^6 + q^7, \\
& 9 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{5}{q^3} + \frac{7}{q^2} - \frac{8}{q} - 7q + 5q^2 - 3q^3 + q^4, \quad -5 + \frac{1}{q^7} - \frac{3}{q^6} + \frac{5}{q^5} - \frac{8}{q^4} + \frac{9}{q^3} - \frac{8}{q^2} + \frac{8}{q} + 3q - q^2, \\
& -7 - \frac{1}{q^6} + \frac{3}{q^5} - \frac{6}{q^4} + \frac{8}{q^3} - \frac{8}{q^2} + \frac{9}{q} + 5q - 3q^2 + q^3, \\
& 9 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{5}{q^3} + \frac{8}{q^2} - \frac{9}{q} - 8q + 6q^2 - 3q^3 + q^4, \quad -5 + \frac{1}{q^7} - \frac{4}{q^6} + \frac{6}{q^5} - \frac{8}{q^4} + \frac{10}{q^3} - \frac{9}{q^2} + \frac{8}{q} + 3q - q^2, \\
& -6 - \frac{1}{q^2} + \frac{4}{q} + 9q - 10q^2 + 10q^3 - 9q^4 + 6q^5 - 3q^6 + q^7,
\end{aligned}$$

$$\begin{aligned}
& 11 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{6}{q^3} + \frac{9}{q^2} - \frac{10}{q} - 9q + 7q^2 - 4q^3 + q^4, \\
& 12 - \frac{1}{q^5} + \frac{4}{q^4} - \frac{7}{q^3} + \frac{10}{q^2} - \frac{12}{q} - 10q + 8q^2 - 4q^3 + q^4, \\
& -\frac{1}{q^{10}} + \frac{1}{q^9} - \frac{3}{q^8} + \frac{4}{q^7} - \frac{3}{q^6} + \frac{5}{q^5} - \frac{4}{q^4} + \frac{3}{q^3} - \frac{2}{q^2} + \frac{1}{q}, \\
& 1 - 2q + 4q^2 - 5q^3 + 6q^4 - 6q^5 + 6q^6 - 4q^7 + 2q^8 - q^9, \\
& 7 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{4}{q^3} + \frac{7}{q^2} - \frac{8}{q} - 7q + 5q^2 - 2q^3 + q^4, \\
& -\frac{1}{q^{11}} + \frac{3}{q^{10}} - \frac{6}{q^9} + \frac{8}{q^8} - \frac{10}{q^7} + \frac{10}{q^6} - \frac{8}{q^5} + \frac{7}{q^4} - \frac{3}{q^3} + \frac{1}{q^2}, \\
& -3 + \frac{1}{q} + 6q - 8q^2 + 10q^3 - 9q^4 + 8q^5 - 6q^6 + 3q^7 - q^8, \\
& -8 + \frac{1}{q^7} - \frac{4}{q^6} + \frac{8}{q^5} - \frac{11}{q^4} + \frac{13}{q^3} - \frac{13}{q^2} + \frac{11}{q} + 5q - q^2, \\
& 8 + \frac{1}{q^6} - \frac{3}{q^5} + \frac{5}{q^4} - \frac{7}{q^3} + \frac{8}{q^2} - \frac{8}{q} - 5q + 3q^2 - q^3, -1 + \frac{1}{q^3} - \frac{1}{q^2} + \frac{1}{q} + q - q^2 + q^3, \\
& 1 - q + 2q^2 - 2q^3 + 2q^4 - 2q^5 + 2q^6 - q^7, 3 - \frac{1}{q^5} + \frac{2}{q^4} - \frac{2}{q^3} + \frac{3}{q^2} - \frac{3}{q} - 2q + q^2, \\
& -\frac{1}{q^8} + \frac{2}{q^7} - \frac{3}{q^6} + \frac{4}{q^5} - \frac{4}{q^4} + \frac{4}{q^3} - \frac{3}{q^2} + \frac{2}{q}, 2 + \frac{1}{q^6} - \frac{1}{q^5} + \frac{1}{q^4} - \frac{2}{q^3} + \frac{1}{q^2} - \frac{1}{q}, \\
& -3 - \frac{1}{q^2} + \frac{3}{q} + 5q - 5q^2 + 4q^3 - 4q^4 + 2q^5, -3 + \frac{1}{q} + 4q - 4q^2 + 6q^3 - 4q^4 + 3q^5 - 2q^6, \\
& q^2 - 2q^3 + 4q^4 - 4q^5 + 5q^6 - 4q^7 + 3q^8 - 2q^9, 2 + \frac{1}{q^8} - \frac{1}{q^7} + \frac{1}{q^6} - \frac{2}{q^5} + \frac{2}{q^4} - \frac{2}{q^3} + \frac{2}{q^2} - \frac{2}{q} - q + q^2, \\
& \frac{1}{q^{11}} - \frac{2}{q^{10}} + \frac{2}{q^9} - \frac{3}{q^8} + \frac{3}{q^7} - \frac{3}{q^6} + \frac{3}{q^5} - \frac{2}{q^4} + \frac{2}{q^3} - \frac{1}{q^2} + \frac{1}{q}, \\
& 4 + \frac{1}{q^6} - \frac{1}{q^5} + \frac{2}{q^4} - \frac{3}{q^3} + \frac{3}{q^2} - \frac{4}{q} - 3q + 2q^2 - q^3 + q^4, \\
& -4 + \frac{1}{q^5} - \frac{2}{q^4} + \frac{3}{q^3} - \frac{3}{q^2} + \frac{4}{q} + 3q - 3q^2 + 2q^3 - q^4 + q^5, \\
& 2 - \frac{1}{q} - 2q + 4q^2 - 4q^3 + 5q^4 - 5q^5 + 4q^6 - 3q^7 + 2q^8 - q^9, \\
& 1 + \frac{1}{q^{10}} - \frac{2}{q^9} + \frac{3}{q^8} - \frac{5}{q^7} + \frac{6}{q^6} - \frac{6}{q^5} + \frac{5}{q^4} - \frac{4}{q^3} + \frac{3}{q^2} - \frac{1}{q}, \\
& -2 + \frac{1}{q^9} - \frac{2}{q^8} + \frac{3}{q^7} - \frac{5}{q^6} + \frac{6}{q^5} - \frac{7}{q^4} + \frac{7}{q^3} - \frac{5}{q^2} + \frac{4}{q} + q, \\
& 2 + \frac{1}{q^8} - \frac{2}{q^7} + \frac{3}{q^6} - \frac{4}{q^5} + \frac{4}{q^4} - \frac{4}{q^3} + \frac{4}{q^2} - \frac{3}{q} - q + q^2,
\end{aligned}$$

$$\begin{aligned}
& -4 + \frac{1}{q^3} - \frac{2}{q^2} + \frac{3}{q} + 6q - 6q^2 + 6q^3 - 5q^4 + 3q^5 - 2q^6 + q^7, \\
& 6 - \frac{1}{q^3} + \frac{3}{q^2} - \frac{4}{q} - 7q + 7q^2 - 6q^3 + 5q^4 - 3q^5 + 2q^6 - q^7, \\
& -5 + \frac{1}{q^7} - \frac{2}{q^6} + \frac{4}{q^5} - \frac{6}{q^4} + \frac{7}{q^3} - \frac{7}{q^2} + \frac{6}{q} + 3q - q^2 + q^3, \\
& -3 - \frac{1}{q^2} + \frac{2}{q} + 6q - 7q^2 + 8q^3 - 7q^4 + 6q^5 - 4q^6 + 2q^7 - q^8, \\
& 8 + \frac{1}{q^6} - \frac{2}{q^5} + \frac{4}{q^4} - \frac{6}{q^3} + \frac{8}{q^2} - \frac{9}{q} - 7q + 5q^2 - 2q^3 + q^4, \\
& 1 + \frac{1}{q^{10}} - \frac{3}{q^9} + \frac{5}{q^8} - \frac{8}{q^7} + \frac{9}{q^6} - \frac{9}{q^5} + \frac{9}{q^4} - \frac{6}{q^3} + \frac{4}{q^2} - \frac{2}{q}, \\
& -6 - \frac{1}{q^4} + \frac{2}{q^3} - \frac{3}{q^2} + \frac{5}{q} + 7q - 6q^2 + 6q^3 - 4q^4 + 2q^5 - q^6, \\
& -5 + \frac{1}{q^3} - \frac{2}{q^2} + \frac{4}{q} + 7q - 8q^2 + 7q^3 - 6q^4 + 4q^5 - 2q^6 + q^7, \\
& 7 - \frac{1}{q^5} + \frac{2}{q^4} - \frac{3}{q^3} + \frac{5}{q^2} - \frac{6}{q} - 6q + 5q^2 - 3q^3 + 2q^4 - q^5, \\
& -6 + \frac{1}{q^7} - \frac{3}{q^6} + \frac{5}{q^5} - \frac{7}{q^4} + \frac{9}{q^3} - \frac{9}{q^2} + \frac{8}{q} + 4q - 2q^2 + q^3, \\
& -7 - \frac{1}{q^6} + \frac{3}{q^5} - \frac{5}{q^4} + \frac{7}{q^3} - \frac{8}{q^2} + \frac{8}{q} + 6q - 3q^2 + 2q^3 - q^4, \\
& -1 + \frac{1}{q^9} - \frac{2}{q^8} + \frac{3}{q^7} - \frac{4}{q^6} + \frac{5}{q^5} - \frac{6}{q^4} + \frac{5}{q^3} - \frac{4}{q^2} + \frac{3}{q} + q, \\
& 1 + \frac{1}{q^{10}} - \frac{2}{q^9} + \frac{3}{q^8} - \frac{6}{q^7} + \frac{7}{q^6} - \frac{7}{q^5} + \frac{7}{q^4} - \frac{5}{q^3} + \frac{4}{q^2} - \frac{2}{q}, \\
& 8 + \frac{1}{q^4} - \frac{2}{q^3} + \frac{4}{q^2} - \frac{6}{q} - 8q + 7q^2 - 6q^3 + 4q^4 - 2q^5 + q^6, \\
& -5 - \frac{1}{q^2} + \frac{3}{q} + 8q - 9q^2 + 10q^3 - 9q^4 + 7q^5 - 4q^6 + 2q^7 - q^8, \\
& -2 + \frac{1}{q^9} - \frac{2}{q^8} + \frac{4}{q^7} - \frac{7}{q^6} + \frac{8}{q^5} - \frac{9}{q^4} + \frac{9}{q^3} - \frac{7}{q^2} + \frac{5}{q} + q, \\
& 1 + \frac{1}{q^{10}} - \frac{3}{q^9} + \frac{6}{q^8} - \frac{9}{q^7} + \frac{10}{q^6} - \frac{11}{q^5} + \frac{10}{q^4} - \frac{7}{q^3} + \frac{5}{q^2} - \frac{2}{q}, \\
& 10 + \frac{1}{q^4} - \frac{3}{q^3} + \frac{6}{q^2} - \frac{8}{q} - 10q + 9q^2 - 7q^3 + 4q^4 - 2q^5 + q^6, \\
& -5 - \frac{1}{q^8} + \frac{3}{q^7} - \frac{6}{q^6} + \frac{9}{q^5} - \frac{11}{q^4} + \frac{12}{q^3} - \frac{11}{q^2} + \frac{9}{q} + 3q - q^2, \\
& 7 - \frac{1}{q^3} + \frac{3}{q^2} - \frac{5}{q} - 8q + 9q^2 - 7q^3 + 6q^4 - 4q^5 + 2q^6 - q^7,
\end{aligned}$$

$$\begin{aligned}
& -7 + \frac{1}{q^7} - \frac{3}{q^6} + \frac{6}{q^5} - \frac{8}{q^4} + \frac{10}{q^3} - \frac{11}{q^2} + \frac{9}{q} + 5q - 2q^2 + q^3, \\
& -3 + \frac{1}{q^9} - \frac{3}{q^8} + \frac{5}{q^7} - \frac{8}{q^6} + \frac{10}{q^5} - \frac{11}{q^4} + \frac{11}{q^3} - \frac{8}{q^2} + \frac{6}{q} + q, \\
& 10 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{5}{q^3} + \frac{7}{q^2} - \frac{9}{q} - 8q + 7q^2 - 4q^3 + 2q^4 - q^5, \\
& 11 + \frac{1}{q^6} - \frac{3}{q^5} + \frac{5}{q^4} - \frac{8}{q^3} + \frac{11}{q^2} - \frac{11}{q} - 9q + 6q^2 - 3q^3 + q^4, \\
& 11 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{5}{q^3} + \frac{8}{q^2} - \frac{10}{q} - 10q + 8q^2 - 5q^3 + 3q^4 - q^5, \\
& 5 - \frac{1}{q^3} + \frac{2}{q^2} - \frac{3}{q} - 5q + 6q^2 - 5q^3 + 4q^4 - 3q^5 + 2q^6 - q^7, \\
& 8 + \frac{1}{q^4} - \frac{2}{q^3} + \frac{4}{q^2} - \frac{6}{q} - 8q + 7q^2 - 6q^3 + 4q^4 - 2q^5 + q^6, \\
& -2 + \frac{1}{q^9} - \frac{3}{q^8} + \frac{4}{q^7} - \frac{6}{q^6} + \frac{8}{q^5} - \frac{8}{q^4} + \frac{8}{q^3} - \frac{6}{q^2} + \frac{4}{q} + q, \\
& 9 - \frac{1}{q^5} + \frac{2}{q^4} - \frac{4}{q^3} + \frac{7}{q^2} - \frac{8}{q} - 8q + 7q^2 - 4q^3 + 2q^4 - q^5, \\
& -2 + \frac{1}{q^9} - \frac{3}{q^8} + \frac{5}{q^7} - \frac{7}{q^6} + \frac{9}{q^5} - \frac{10}{q^4} + \frac{9}{q^3} - \frac{7}{q^2} + \frac{5}{q} + q, \\
& 1 + \frac{1}{q^{10}} - \frac{3}{q^9} + \frac{5}{q^8} - \frac{8}{q^7} + \frac{10}{q^6} - \frac{10}{q^5} + \frac{9}{q^4} - \frac{7}{q^3} + \frac{5}{q^2} - \frac{2}{q}, \\
& -6 - \frac{1}{q^2} + \frac{3}{q} + 10q - 11q^2 + 13q^3 - 12q^4 + 9q^5 - 6q^6 + 3q^7 - q^8, \\
& -8 + \frac{1}{q^7} - \frac{3}{q^6} + \frac{6}{q^5} - \frac{9}{q^4} + \frac{11}{q^3} - \frac{12}{q^2} + \frac{11}{q} + 6q - 3q^2 + q^3, \\
& 14 - \frac{1}{q^5} + \frac{4}{q^4} - \frac{7}{q^3} + \frac{10}{q^2} - \frac{13}{q} - 12q + 10q^2 - 6q^3 + 3q^4 - q^5, \\
& 13 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{6}{q^3} + \frac{9}{q^2} - \frac{11}{q} - 11q + 9q^2 - 6q^3 + 3q^4 - q^5, \\
& -9 + \frac{1}{q^7} - \frac{4}{q^6} + \frac{7}{q^5} - \frac{10}{q^4} + \frac{13}{q^3} - \frac{13}{q^2} + \frac{12}{q} + 6q - 3q^2 + q^3, \\
& 15 - \frac{1}{q^5} + \frac{4}{q^4} - \frac{7}{q^3} + \frac{11}{q^2} - \frac{14}{q} - 14q + 11q^2 - 7q^3 + 4q^4 - q^5, \\
& q - q^2 + 3q^3 - 3q^4 + 4q^5 - 5q^6 + 4q^7 - 4q^8 + 3q^9 - 2q^{10} + q^{11}, \\
& 2 - \frac{1}{q} - 3q + 5q^2 - 5q^3 + 7q^4 - 6q^5 + 5q^6 - 4q^7 + 2q^8 - q^9, \\
& 9 - \frac{1}{q^5} + \frac{2}{q^4} - \frac{4}{q^3} + \frac{6}{q^2} - \frac{7}{q} - 7q + 6q^2 - 4q^3 + 2q^4 - q^5,
\end{aligned}$$

$$\begin{aligned}
& \frac{1}{q^{13}} - \frac{3}{q^{12}} + \frac{5}{q^{11}} - \frac{8}{q^{10}} + \frac{9}{q^9} - \frac{10}{q^8} + \frac{9}{q^7} - \frac{6}{q^6} + \frac{5}{q^5} - \frac{2}{q^4} + \frac{1}{q^3}, \\
& 1 - 2q + 5q^2 - 6q^3 + 8q^4 - 9q^5 + 8q^6 - 7q^7 + 4q^8 - 2q^9 + q^{10}, \\
& -6 - \frac{1}{q^2} + \frac{3}{q} + 9q - 10q^2 + 12q^3 - 10q^4 + 8q^5 - 5q^6 + 2q^7 - q^8, \\
& -8 - \frac{1}{q^4} + \frac{2}{q^3} - \frac{4}{q^2} + \frac{7}{q} + 10q - 9q^2 + 8q^3 - 6q^4 + 3q^5 - q^6, \\
& \frac{1}{q^{12}} - \frac{3}{q^{11}} + \frac{5}{q^{10}} - \frac{9}{q^9} + \frac{11}{q^8} - \frac{12}{q^7} + \frac{12}{q^6} - \frac{9}{q^5} + \frac{7}{q^4} - \frac{3}{q^3} + \frac{1}{q^2}, \\
& -6 - \frac{1}{q^4} + \frac{2}{q^3} - \frac{4}{q^2} + \frac{6}{q} + 8q - 7q^2 + 6q^3 - 4q^4 + 2q^5 - q^6, \\
& \frac{1}{q^{12}} - \frac{3}{q^{11}} + \frac{5}{q^{10}} - \frac{8}{q^9} + \frac{9}{q^8} - \frac{10}{q^7} + \frac{10}{q^6} - \frac{7}{q^5} + \frac{5}{q^4} - \frac{2}{q^3} + \frac{1}{q^2}, \\
& 1 - 2q + 5q^2 - 7q^3 + 10q^4 - 11q^5 + 10q^6 - 9q^7 + 6q^8 - 3q^9 + q^{10}, \\
& -6 - \frac{1}{q^2} + \frac{3}{q} + 10q - 12q^2 + 14q^3 - 12q^4 + 10q^5 - 7q^6 + 3q^7 - q^8, \\
& 10 + \frac{1}{q^6} - \frac{3}{q^5} + \frac{6}{q^4} - \frac{8}{q^3} + \frac{10}{q^2} - \frac{11}{q} - 8q + 5q^2 - 2q^3 + q^4, \\
& -9 + \frac{1}{q^3} - \frac{3}{q^2} + \frac{6}{q} + 12q - 12q^2 + 12q^3 - 10q^4 + 6q^5 - 3q^6 + q^7, \\
& 14 + \frac{1}{q^6} - \frac{3}{q^5} + \frac{6}{q^4} - \frac{10}{q^3} + \frac{13}{q^2} - \frac{14}{q} - 11q + 8q^2 - 4q^3 + q^4, \\
& 3 + \frac{1}{q^2} - \frac{1}{q} - 4q + 4q^2 - 5q^3 + 5q^4 - 4q^5 + 3q^6 - 2q^7 + q^8, \\
& 2 - \frac{1}{q} - 3q + 6q^2 - 6q^3 + 7q^4 - 7q^5 + 6q^6 - 4q^7 + 2q^8 - q^9, \\
& \frac{1}{q^{12}} - \frac{3}{q^{11}} + \frac{4}{q^{10}} - \frac{7}{q^9} + \frac{9}{q^8} - \frac{9}{q^7} + \frac{7}{q^6} - \frac{5}{q^5} + \frac{2}{q^4} - \frac{1}{q^3} + \frac{1}{q^2}, \\
& -6 + \frac{1}{q^3} - \frac{2}{q^2} + \frac{4}{q} + 8q - 8q^2 + 8q^3 - 7q^4 + 4q^5 - 2q^6 + q^7, \\
& -5 - \frac{1}{q^2} + \frac{3}{q} + 8q - 10q^2 + 11q^3 - 9q^4 + 8q^5 - 5q^6 + 2q^7 - q^8, \\
& \frac{1}{q^{13}} - \frac{4}{q^{12}} + \frac{7}{q^{11}} - \frac{10}{q^{10}} + \frac{12}{q^9} - \frac{13}{q^8} + \frac{11}{q^7} - \frac{8}{q^6} + \frac{6}{q^5} - \frac{2}{q^4} + \frac{1}{q^3}, \\
& -2 + \frac{1}{q^9} - \frac{3}{q^8} + \frac{5}{q^7} - \frac{8}{q^6} + \frac{10}{q^5} - \frac{10}{q^4} + \frac{10}{q^3} - \frac{8}{q^2} + \frac{5}{q} + q, \\
& 8 - \frac{1}{q^7} + \frac{2}{q^6} - \frac{4}{q^5} + \frac{7}{q^4} - \frac{8}{q^3} + \frac{9}{q^2} - \frac{9}{q} - 5q + 3q^2 - q^3, \\
& -7 - \frac{1}{q^2} + \frac{4}{q} + 11q - 14q^2 + 15q^3 - 13q^4 + 11q^5 - 7q^6 + 3q^7 - q^8,
\end{aligned}$$

$$\begin{aligned}
& -8 + \frac{1}{q^3} - \frac{2}{q^2} + \frac{5}{q} + 10q - 11q^2 + 11q^3 - 9q^4 + 6q^5 - 3q^6 + q^7, \\
13 & - \frac{1}{q^5} + \frac{3}{q^4} - \frac{6}{q^3} + \frac{10}{q^2} - \frac{12}{q} - 12q + 10q^2 - 6q^3 + 3q^4 - q^5, \\
1 & - 2q + 5q^2 - 8q^3 + 11q^4 - 12q^5 + 12q^6 - 10q^7 + 7q^8 - 4q^9 + q^{10}, \\
-7 & - \frac{1}{q^8} + \frac{3}{q^7} - \frac{6}{q^6} + \frac{10}{q^5} - \frac{13}{q^4} + \frac{14}{q^3} - \frac{13}{q^2} + \frac{11}{q} + 4q - q^2, \\
-3 & + \frac{1}{q^9} - \frac{2}{q^8} + \frac{4}{q^7} - \frac{8}{q^6} + \frac{9}{q^5} - \frac{10}{q^4} + \frac{11}{q^3} - \frac{8}{q^2} + \frac{6}{q} + q, \\
14 & + \frac{1}{q^4} - \frac{4}{q^3} + \frac{7}{q^2} - \frac{10}{q} - 13q + 12q^2 - 10q^3 + 6q^4 - 3q^5 + q^6, \\
1 & - q + 4q^2 - 6q^3 + 8q^4 - 10q^5 + 9q^6 - 8q^7 + 6q^8 - 3q^9 + q^{10}, \\
-4 & - \frac{1}{q^2} + \frac{2}{q} + 8q - 9q^2 + 11q^3 - 10q^4 + 8q^5 - 6q^6 + 3q^7 - q^8, \\
1 & + \frac{1}{q^{10}} - \frac{3}{q^9} + \frac{5}{q^8} - \frac{9}{q^7} + \frac{11}{q^6} - \frac{11}{q^5} + \frac{11}{q^4} - \frac{8}{q^3} + \frac{6}{q^2} - \frac{3}{q}, \\
11 & - \frac{1}{q^5} + \frac{2}{q^4} - \frac{5}{q^3} + \frac{8}{q^2} - \frac{9}{q} - 9q + 8q^2 - 5q^3 + 2q^4 - q^5, \\
\frac{1}{q^{13}} & - \frac{3}{q^{12}} + \frac{6}{q^{11}} - \frac{10}{q^{10}} + \frac{11}{q^9} - \frac{12}{q^8} + \frac{11}{q^7} - \frac{8}{q^6} + \frac{6}{q^5} - \frac{2}{q^4} + \frac{1}{q^3}, \\
15 & - \frac{1}{q^5} + \frac{3}{q^4} - \frac{7}{q^3} + \frac{11}{q^2} - \frac{13}{q} - 13q + 11q^2 - 7q^3 + 3q^4 - q^5, \\
-7 & + \frac{1}{q^7} - \frac{3}{q^6} + \frac{5}{q^5} - \frac{8}{q^4} + \frac{10}{q^3} - \frac{10}{q^2} + \frac{10}{q} + 5q - 3q^2 + q^3, \\
-7 & - \frac{1}{q^2} + \frac{4}{q} + 11q - 13q^2 + 14q^3 - 13q^4 + 10q^5 - 6q^6 + 3q^7 - q^8, \\
-6 & - \frac{1}{q^2} + \frac{3}{q} + 11q - 13q^2 + 15q^3 - 14q^4 + 11q^5 - 8q^6 + 4q^7 - q^8, \\
3 & - \frac{1}{q^9} + \frac{3}{q^8} - \frac{5}{q^7} + \frac{7}{q^6} - \frac{9}{q^5} + \frac{9}{q^4} - \frac{8}{q^3} + \frac{7}{q^2} - \frac{4}{q} - q, \\
14 & + \frac{1}{q^4} - \frac{4}{q^3} + \frac{8}{q^2} - \frac{11}{q} - 14q + 13q^2 - 10q^3 + 6q^4 - 3q^5 + q^6, \\
13 & + \frac{1}{q^4} - \frac{3}{q^3} + \frac{6}{q^2} - \frac{10}{q} - 13q + 13q^2 - 10q^3 + 7q^4 - 4q^5 + q^6, \\
17 & - \frac{1}{q^5} + \frac{4}{q^4} - \frac{8}{q^3} + \frac{13}{q^2} - \frac{16}{q} - 16q + 13q^2 - 8q^3 + 4q^4 - q^5, \\
-9 & - \frac{1}{q^8} + \frac{3}{q^7} - \frac{7}{q^6} + \frac{12}{q^5} - \frac{15}{q^4} + \frac{17}{q^3} - \frac{16}{q^2} + \frac{13}{q} + 5q - q^2, \\
12 & + \frac{1}{q^4} - \frac{3}{q^3} + \frac{7}{q^2} - \frac{10}{q} - 13q + 12q^2 - 9q^3 + 6q^4 - 3q^5 + q^6,
\end{aligned}$$

$$\begin{aligned}
& 13 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{6}{q^3} + \frac{9}{q^2} - \frac{11}{q} - 11q + 9q^2 - 6q^3 + 3q^4 - q^5, \\
& 1 - 3q + 7q^2 - 10q^3 + 14q^4 - 15q^5 + 14q^6 - 12q^7 + 8q^8 - 4q^9 + q^{10}, \\
& -10 - \frac{1}{q^6} + \frac{3}{q^5} - \frac{6}{q^4} + \frac{9}{q^3} - \frac{10}{q^2} + \frac{11}{q} + 8q - 5q^2 + 3q^3 - q^4, \\
& -8 + \frac{1}{q^3} - \frac{3}{q^2} + \frac{6}{q} + 11q - 12q^2 + 11q^3 - 9q^4 + 6q^5 - 3q^6 + q^7, \\
& -8 - \frac{1}{q^2} + \frac{4}{q} + 12q - 14q^2 + 16q^3 - 14q^4 + 11q^5 - 7q^6 + 3q^7 - q^8, \\
& 15 + \frac{1}{q^4} - \frac{4}{q^3} + \frac{9}{q^2} - \frac{12}{q} - 16q + 14q^2 - 11q^3 + 7q^4 - 3q^5 + q^6, \\
& -3 + \frac{1}{q} + 7q - 11q^2 + 14q^3 - 14q^4 + 14q^5 - 11q^6 + 7q^7 - 4q^8 + q^9, \\
& 1 + \frac{1}{q^{10}} - \frac{3}{q^9} + \frac{7}{q^8} - \frac{11}{q^7} + \frac{12}{q^6} - \frac{14}{q^5} + \frac{13}{q^4} - \frac{9}{q^3} + \frac{7}{q^2} - \frac{3}{q}, \\
& 15 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{7}{q^3} + \frac{10}{q^2} - \frac{12}{q} - 12q + 10q^2 - 7q^3 + 3q^4 - q^5, \\
& 3 - \frac{1}{q^9} + \frac{3}{q^8} - \frac{6}{q^7} + \frac{8}{q^6} - \frac{10}{q^5} + \frac{11}{q^4} - \frac{9}{q^3} + \frac{8}{q^2} - \frac{5}{q} - q, \\
& q^2 - 3q^3 + 7q^4 - 10q^5 + 14q^6 - 14q^7 + 13q^8 - 11q^9 + 7q^{10} - 4q^{11} + q^{12}, \\
& 12 + \frac{1}{q^4} - \frac{3}{q^3} + \frac{6}{q^2} - \frac{9}{q} - 12q + 11q^2 - 9q^3 + 6q^4 - 3q^5 + q^6, \\
& -6 - \frac{1}{q^8} + \frac{3}{q^7} - \frac{6}{q^6} + \frac{9}{q^5} - \frac{12}{q^4} + \frac{13}{q^3} - \frac{11}{q^2} + \frac{10}{q} + 3q - q^2, \\
& 13 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{6}{q^3} + \frac{10}{q^2} - \frac{12}{q} - 12q + 10q^2 - 6q^3 + 3q^4 - q^5, \\
& -11 + \frac{1}{q^3} - \frac{3}{q^2} + \frac{7}{q} + 14q - 15q^2 + 15q^3 - 12q^4 + 8q^5 - 4q^6 + q^7, \\
& -9 + \frac{1}{q^3} - \frac{3}{q^2} + \frac{6}{q} + 12q - 12q^2 + 12q^3 - 10q^4 + 6q^5 - 3q^6 + q^7, \\
& 16 - \frac{1}{q^5} + \frac{4}{q^4} - \frac{8}{q^3} + \frac{12}{q^2} - \frac{15}{q} - 14q + 12q^2 - 7q^3 + 3q^4 - q^5, \\
& -9 - \frac{1}{q^4} + \frac{3}{q^3} - \frac{5}{q^2} + \frac{8}{q} + 10q - 10q^2 + 8q^3 - 5q^4 + 3q^5 - q^6, \\
& 15 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{7}{q^3} + \frac{11}{q^2} - \frac{13}{q} - 13q + 11q^2 - 7q^3 + 3q^4 - q^5, \\
& -10 + \frac{1}{q^7} - \frac{3}{q^6} + \frac{7}{q^5} - \frac{11}{q^4} + \frac{13}{q^3} - \frac{14}{q^2} + \frac{13}{q} + 7q - 3q^2 + q^3, \\
& 1 - 3q + 7q^2 - 9q^3 + 12q^4 - 13q^5 + 12q^6 - 10q^7 + 6q^8 - 3q^9 + q^{10},
\end{aligned}$$

$$\begin{aligned}
& -10 + \frac{1}{q^7} - \frac{4}{q^6} + \frac{7}{q^5} - \frac{11}{q^4} + \frac{14}{q^3} - \frac{14}{q^2} + \frac{14}{q} + 7q - 4q^2 + q^3, \\
& -8 - \frac{1}{q^2} + \frac{4}{q} + 14q - 17q^2 + 19q^3 - 18q^4 + 14q^5 - 10q^6 + 5q^7 - q^8, \\
& 15 + \frac{1}{q^6} - \frac{4}{q^5} + \frac{7}{q^4} - \frac{11}{q^3} + \frac{15}{q^2} - \frac{15}{q} - 12q + 8q^2 - 4q^3 + q^4, \\
& 19 - \frac{1}{q^5} + \frac{4}{q^4} - \frac{9}{q^3} + \frac{14}{q^2} - \frac{17}{q} - 17q + 14q^2 - 9q^3 + 4q^4 - q^5, \\
& -11 + \frac{1}{q^7} - \frac{4}{q^6} + \frac{8}{q^5} - \frac{12}{q^4} + \frac{15}{q^3} - \frac{16}{q^2} + \frac{15}{q} + 8q - 4q^2 + q^3, \\
& -8 - \frac{1}{q^2} + \frac{4}{q} + 13q - 16q^2 + 18q^3 - 16q^4 + 13q^5 - 9q^6 + 4q^7 - q^8, \\
& 17 - \frac{1}{q^5} + \frac{4}{q^4} - \frac{8}{q^3} + \frac{12}{q^2} - \frac{15}{q} - 15q + 12q^2 - 8q^3 + 4q^4 - q^5, \\
& 16 + \frac{1}{q^4} - \frac{4}{q^3} + \frac{9}{q^2} - \frac{13}{q} - 17q + 16q^2 - 12q^3 + 8q^4 - 4q^5 + q^6, \\
& \frac{1}{q^{12}} - \frac{4}{q^{11}} + \frac{8}{q^{10}} - \frac{13}{q^9} + \frac{16}{q^8} - \frac{18}{q^7} + \frac{17}{q^6} - \frac{13}{q^5} + \frac{10}{q^4} - \frac{4}{q^3} + \frac{1}{q^2}, \\
& -10 - \frac{1}{q^8} + \frac{4}{q^7} - \frac{9}{q^6} + \frac{14}{q^5} - \frac{18}{q^4} + \frac{20}{q^3} - \frac{18}{q^2} + \frac{15}{q} + 5q - q^2, \\
& 17 + \frac{1}{q^4} - \frac{4}{q^3} + \frac{8}{q^2} - \frac{13}{q} - 17q + 17q^2 - 13q^3 + 9q^4 - 5q^5 + q^6, \\
& 21 - \frac{1}{q^5} + \frac{5}{q^4} - \frac{10}{q^3} + \frac{15}{q^2} - \frac{19}{q} - 19q + 15q^2 - 10q^3 + 5q^4 - q^5, q^4 + q^6 - q^{10}, \\
& -1 - \frac{1}{q^4} + \frac{1}{q^3} - \frac{1}{q^2} + \frac{2}{q} + 2q - q^2 + q^3 - q^4, -1 - \frac{1}{q^8} + \frac{1}{q^7} - \frac{2}{q^6} + \frac{3}{q^5} - \frac{3}{q^4} + \frac{4}{q^3} - \frac{2}{q^2} + \frac{2}{q}, \\
& \frac{1}{q^{10}} - \frac{2}{q^9} + \frac{3}{q^8} - \frac{5}{q^7} + \frac{5}{q^6} - \frac{5}{q^5} + \frac{4}{q^4} - \frac{2}{q^3} + \frac{2}{q^2}, q^3 - q^4 + 2q^5 - q^6 + 2q^7 - 2q^8 + q^9 - q^{10}, \\
& 5 - \frac{1}{q^5} + \frac{2}{q^4} - \frac{3}{q^3} + \frac{4}{q^2} - \frac{4}{q} - 3q + 2q^2 - q^3, 2 - \frac{1}{q^7} + \frac{1}{q^6} - \frac{2}{q^5} + \frac{3}{q^4} - \frac{2}{q^3} + \frac{3}{q^2} - \frac{2}{q} - q, \\
& \frac{1}{q^9} - \frac{2}{q^8} + \frac{3}{q^7} - \frac{5}{q^6} + \frac{5}{q^5} - \frac{5}{q^4} + \frac{3}{q^3} - \frac{2}{q^2} + \frac{2}{q}, -\frac{1}{q^7} + \frac{1}{q^6} - \frac{1}{q^5} + \frac{1}{q^4} + \frac{1}{q^2}, \\
& \frac{1}{q^9} - \frac{2}{q^8} + \frac{2}{q^7} - \frac{3}{q^6} + \frac{3}{q^5} - \frac{3}{q^4} + \frac{3}{q^3} - \frac{1}{q^2} + \frac{1}{q}, q^3 - q^4 + 3q^5 - 3q^6 + 4q^7 - 4q^8 + 3q^9 - 3q^{10} + q^{11}, \\
& 7 - \frac{1}{q^5} + \frac{2}{q^4} - \frac{4}{q^3} + \frac{6}{q^2} - \frac{6}{q} - 5q + 4q^2 - 2q^3, -2 + \frac{1}{q^3} - \frac{2}{q^2} + \frac{2}{q} + 3q - 2q^2 + 2q^3 - q^4, \\
& 4 + \frac{1}{q^6} - \frac{2}{q^5} + \frac{3}{q^4} - \frac{4}{q^3} + \frac{4}{q^2} - \frac{4}{q} - 2q + q^2, -5 + \frac{1}{q^3} - \frac{2}{q^2} + \frac{4}{q} + 6q - 6q^2 + 5q^3 - 4q^4 + 2q^5, \\
& q^4 + q^6 - q^8 + q^9 - q^{10} + q^{11} - q^{12}, 1 - \frac{1}{q^7} + \frac{1}{q^6} - \frac{1}{q^5} + \frac{2}{q^4} - \frac{1}{q^3} + \frac{1}{q^2} - \frac{1}{q},
\end{aligned}$$

$$\begin{aligned}
& 3 + \frac{1}{q^6} - \frac{2}{q^5} + \frac{2}{q^4} - \frac{3}{q^3} + \frac{4}{q^2} - \frac{3}{q} - 2q + q^2, \quad q^3 - q^4 + 2q^5 - 2q^6 + 3q^7 - 2q^8 + 2q^9 - 2q^{10}, \\
& -1 - \frac{1}{q^8} + \frac{2}{q^7} - \frac{3}{q^6} + \frac{4}{q^5} - \frac{5}{q^4} + \frac{5}{q^3} - \frac{3}{q^2} + \frac{3}{q}, \quad -3 + \frac{1}{q^7} - \frac{3}{q^6} + \frac{5}{q^5} - \frac{6}{q^4} + \frac{7}{q^3} - \frac{7}{q^2} + \frac{5}{q} + 2q, \\
& -\frac{1}{q^{10}} + \frac{1}{q^9} - \frac{1}{q^8} + \frac{1}{q^7} + \frac{1}{q^2}, \quad 6 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{4}{q^3} + \frac{5}{q^2} - \frac{6}{q} - 4q + 3q^2 - q^3, \\
& -4 + \frac{1}{q^3} - \frac{2}{q^2} + \frac{3}{q} + 5q - 4q^2 + 4q^3 - 3q^4 + q^5, \quad -1 - \frac{1}{q^8} + \frac{2}{q^7} - \frac{4}{q^6} + \frac{5}{q^5} - \frac{5}{q^4} + \frac{6}{q^3} - \frac{4}{q^2} + \frac{3}{q}, \\
& \frac{1}{q^{10}} - \frac{3}{q^9} + \frac{5}{q^8} - \frac{7}{q^7} + \frac{7}{q^6} - \frac{7}{q^5} + \frac{6}{q^4} - \frac{3}{q^3} + \frac{2}{q^2}, \quad 1 - 2q + 4q^2 - 4q^3 + 5q^4 - 5q^5 + 4q^6 - 3q^7 + q^8, \\
& -5 - \frac{1}{q^2} + \frac{3}{q} + 7q - 7q^2 + 8q^3 - 6q^4 + 4q^5 - 2q^6, \quad \frac{1}{q^{13}} - \frac{2}{q^{12}} + \frac{2}{q^{11}} - \frac{3}{q^{10}} + \frac{2}{q^9} - \frac{2}{q^8} + \frac{1}{q^7} + \frac{1}{q^6} + \frac{1}{q^4}, \\
& 1 - \frac{1}{q^5} + \frac{1}{q^4} - \frac{1}{q^3} + \frac{1}{q^2} + q - q^2 + q^3 - q^4, \quad q^3 + 2q^6 - 2q^7 + 2q^8 - 3q^9 + 2q^{10} - 2q^{11} + q^{12}, \\
& 4 + \frac{1}{q^2} - \frac{2}{q} - 4q + 4q^2 - 4q^3 + 3q^4 - 2q^5 + q^6, \quad -4 - \frac{1}{q^6} + \frac{3}{q^5} - \frac{5}{q^4} + \frac{6}{q^3} - \frac{6}{q^2} + \frac{6}{q} + 3q - q^2, \\
& 2q^2 - 4q^3 + 7q^4 - 8q^5 + 9q^6 - 8q^7 + 6q^8 - 4q^9 + q^{10}, \\
& 8 + \frac{1}{q^4} - \frac{3}{q^3} + \frac{6}{q^2} - \frac{7}{q} - 8q + 6q^2 - 4q^3 + 2q^4, \quad -1 - \frac{1}{q^8} + \frac{3}{q^7} - \frac{5}{q^6} + \frac{6}{q^5} - \frac{7}{q^4} + \frac{7}{q^3} - \frac{5}{q^2} + \frac{4}{q}, \\
& 1 - 2q + 3q^2 - 3q^3 + 4q^4 - 3q^5 + 3q^6 - 2q^7, \quad -\frac{1}{q^{11}} + \frac{1}{q^{10}} - \frac{1}{q^9} + \frac{1}{q^8} - \frac{1}{q^7} + \frac{1}{q^6} + \frac{1}{q^3}, \\
& -3 + \frac{1}{q^7} - \frac{2}{q^6} + \frac{4}{q^5} - \frac{6}{q^4} + \frac{6}{q^3} - \frac{6}{q^2} + \frac{5}{q} + 2q, \quad -6 - \frac{1}{q^2} + \frac{4}{q} + 8q - 9q^2 + 9q^3 - 7q^4 + 5q^5 - 2q^6, \\
& 8 - \frac{1}{q^5} + \frac{3}{q^4} - \frac{5}{q^3} + \frac{7}{q^2} - \frac{8}{q} - 6q + 5q^2 - 2q^3, \quad 2q - 4q^2 + 6q^3 - 6q^4 + 7q^5 - 6q^6 + 4q^7 - 3q^8 + q^9 \}
\end{aligned}$$

Length[Js]

250

Length[Union[Js]]

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