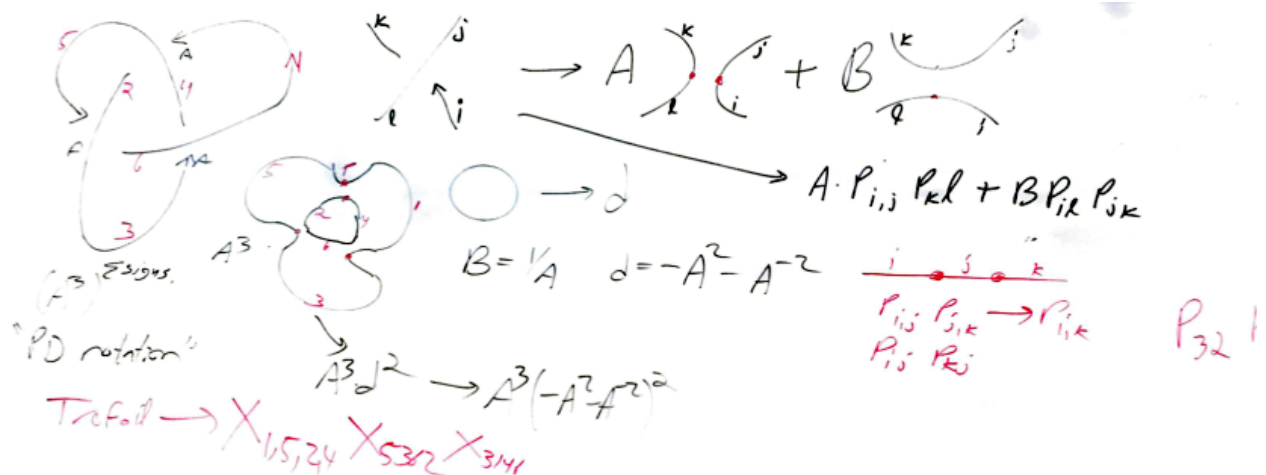


Find everything at <http://drorbn.net/syd3>

16:



```
ln[8]:= KB[pd_PD] := Module[{p, t1, t2, t3, t4, B, d},
  SetAttributes[p, Orderless];
  t1 = pd /. X[i_, j_, k_, l_] → A * p[i, j] * p[k, l] + B * p[i, l] p[j, k];
  t2 = Expand[t1 /. PD → Times];
  t3 = t2 //. {p[i_, j_] p[j_, k_] → p[i, k]};
  t4 = t3 /. {p[i_, i_] → d, p[i_, j_]^2 → d};
  Expand[t4 /. {B → 1/A, d → -A^2 - 1/A^2}]
]
```

In[]:= **Knots**

Out[]:=

```
{Knot[3, 1] → PD[X[1, 4, 2, 5], X[3, 6, 4, 1], X[5, 2, 6, 3]], ... 248 ... ,
GST48 → PD[X[1, 15, 2, 14], X[29, 2, 30, 3], X[40, 4, 41, 3], X[4, 44, 5, 43], ... 40 ... ,
X[94, 67, 95, 68], X[86, 75, 87, 76], X[77, 88, 78, 89], X[93, 78, 94, 79]] }
```

large output

show less

show more

show all

set size limit...

In[]:= **Knot[8, 17] /. Knots**

Out[]:=

```
PD[X[6, 2, 7, 1], X[14, 8, 15, 7], X[8, 3, 9, 4], X[2, 13, 3, 14],
X[12, 5, 13, 6], X[4, 9, 5, 10], X[16, 12, 1, 11], X[10, 16, 11, 15]]
```

In[]:= **KB[Knot[8, 17] /. Knots]**

Out[]:=

$$-\frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 2A^{10} + 2A^{14} - A^{18}$$

In[]:= **tab10 = Table[**

```
Echo[Timing[{k, KB[Knot[10, k] /. Knots]}]],
{k, 165}
]
```

- » {0.328125, {1, $-\frac{1}{A^{28}} - \frac{1}{A^{20}} + A^4 - A^{16}$ }}
- » {0.328125, {2, $-1 - \frac{1}{A^{16}} - \frac{1}{A^8} + A^{16} + A^{24} - A^{28}$ }}
- » {0.34375, {3, $1 - \frac{1}{A^{24}} - \frac{1}{A^{16}} + \frac{1}{A^{12}} - \frac{1}{A^8} + A^8 - A^{12} - A^{20}$ }}
- » {0.328125, {4, $-\frac{1}{A^{16}} - \frac{1}{A^8} + \frac{1}{A^4} + A^4 - A^{12} - A^{20} + A^{24} - A^{28}$ }}
- » {0.296875, {5, $\frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^2} - 2A^6 - A^{14} + A^{18}$ }}
- » {0.296875, {6, $1 - \frac{1}{A^{20}} - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{1}{A^4} - A^8 + 2A^{12} - A^{16} + A^{20} - A^{24}$ }}
- » {0.421875, {7, $1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{1}{A^{12}} - \frac{2}{A^8} - A^4 + 2A^8 - A^{12} + A^{16} - A^{20}$ }}
- » {0.34375, {8, $-1 - \frac{1}{A^{16}} - \frac{1}{A^8} + \frac{1}{A^4} + A^{16} - A^{20} + A^{24} - A^{28}$ }}
- » {0.3125, {9, $-\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{1}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} - 2A^4 + A^8 - A^{12} + A^{16} - A^{20}$ }}
- » {0.3125, {10, $\frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{2}{A^6} + \frac{1}{A^2} - A^2 + A^{10} - 2A^{14} + A^{18} - 2A^{22} + A^{26}$ }}
- » {0.546875, {11, $1 - \frac{1}{A^{20}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{1}{A^4} - A^8 + 2A^{12} - 2A^{16} + A^{20} - A^{24}$ }}
- » {0.296875, {12, $\frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 3A^{10} + A^{14} - A^{18} + A^{22}$ }}
- » {0.265625, {13, $1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 2A^4 + 2A^8 - 2A^{12} + A^{16} - A^{20}$ }}

- » $\left\{0.28125, \left\{14, -\frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} - A^8 + 3A^{12} - 2A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.3125, \left\{15, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{2}{A^{18}} - \frac{2}{A^{14}} - \frac{1}{A^6} - \frac{1}{A^2} + A^2 - 2A^6 + A^{10} - A^{14} + A^{18}\right\}\right\}$
- » $\left\{0.328125, \left\{16, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 2A^4 + A^8 - 2A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.328125, \left\{17, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{1}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 2A^{10} + A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{18, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{2}{A^4} - 2A^8 + 2A^{12} - 2A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.34375, \left\{19, \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{3}{A^6} + \frac{1}{A^2} - A^2 + A^{10} - 2A^{14} + 2A^{18} - 2A^{22} + A^{26}\right\}\right\}$
- » $\left\{0.484375, \left\{20, 1 - \frac{1}{A^{24}} - \frac{2}{A^{16}} + \frac{1}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - A^4 + A^8 - A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.3125, \left\{21, -\frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{2}{A^4} - A^8 + 3A^{12} - A^{16} + A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.296875, \left\{22, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{1}{A^4} - 2A^8 + 2A^{12} - 2A^{16} + A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.40625, \left\{23, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 3A^{10} + 2A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{24, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{2}{A^8} - A^4 + 3A^8 - 2A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.296875, \left\{25, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} + A^4 - A^8 + 3A^{12} - 3A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.296875, \left\{26, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{3}{A^8} - \frac{2}{A^4} - 2A^8 + 2A^{12} - 3A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{27, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{2}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 2A^6 - 3A^{10} + 3A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.296875, \left\{28, \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{2}{A^{10}} - \frac{2}{A^6} + \frac{1}{A^2} - 2A^2 - A^6 + A^{10} - 2A^{14} + 2A^{18} - 2A^{22} + A^{26}\right\}\right\}$
- » $\left\{0.265625, \left\{29, 2 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{2}{A^4} + A^4 - 2A^8 + 2A^{12} - 3A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{30, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{3}{A^8} - 2A^4 + 3A^8 - 2A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.421875, \left\{31, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 + 2A^6 - 2A^{10} + 2A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{32, -\frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} - 3A^4 + 3A^8 - 2A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.4375, \left\{33, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 2A^6 - 3A^{10} + 2A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.296875, \left\{34, \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^6} + \frac{1}{A^2} - A^2 - A^6 - 2A^{14} + A^{18} - A^{22} + A^{26}\right\}\right\}$
- » $\left\{0.25, \left\{35, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{1}{A^4} - 2A^8 + 2A^{12} - 2A^{16} + A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.265625, \left\{36, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{2}{A^{12}} - \frac{2}{A^8} - 2A^4 + 2A^8 - A^{12} + 2A^{16} - A^{20}\right\}\right\}$

- » $\left\{0.25, \left\{37, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 3 A^{10} + 2 A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{38, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 2 A^4 + 2 A^8 - 2 A^{12} + 2 A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.28125, \left\{39, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{2}{A^4} - 2 A^8 + 3 A^{12} - 2 A^{16} + 2 A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.265625, \left\{40, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - 2 A^2 + A^6 - 4 A^{10} + 3 A^{14} - 2 A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.40625, \left\{41, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} + A^4 - 2 A^8 + 3 A^{12} - 3 A^{16} + 2 A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{42, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - A^2 + 3 A^6 - 3 A^{10} + 3 A^{14} - 3 A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{43, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2 A^2 + 2 A^6 - 3 A^{10} + 3 A^{14} - 2 A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{44, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{3}{A^4} - 3 A^8 + 3 A^{12} - 3 A^{16} + 3 A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{45, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - A^2 + 3 A^6 - 4 A^{10} + 3 A^{14} - 3 A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.328125, \left\{46, -1 - \frac{1}{A^{28}} + \frac{1}{A^{24}} - \frac{1}{A^{20}} + \frac{1}{A^{16}} + \frac{1}{A^8} + \frac{1}{A^4} - 2 A^8 - A^{16}\right\}\right\}$
- » $\left\{0.46875, \left\{47, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{2}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^6} - \frac{2}{A^2} - 2 A^6 + A^{10} - A^{14} + A^{18}\right\}\right\}$
- » $\left\{0.3125, \left\{48, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - 2 A^2 + A^6 - 2 A^{10} + 2 A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{49, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{3}{A^{12}} + \frac{1}{A^8} - \frac{3}{A^4} + A^4 - A^8 + 3 A^{12} - 2 A^{16} + 2 A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.3125, \left\{50, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{3}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 2 A^4 + A^8 - 3 A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.28125, \left\{51, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2 A^2 + A^6 - 3 A^{10} + 3 A^{14} - 2 A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.3125, \left\{52, \frac{1}{A^{26}} - \frac{2}{A^{22}} + \frac{3}{A^{18}} - \frac{2}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^6} - \frac{2}{A^2} + A^2 - 3 A^6 + 2 A^{10} - A^{14} + A^{18}\right\}\right\}$
- » $\left\{0.265625, \left\{53, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{4}{A^{16}} + \frac{2}{A^{12}} - \frac{3}{A^8} - 2 A^4 + 4 A^8 - 2 A^{12} + 2 A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.296875, \left\{54, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{2}{A^{18}} - \frac{2}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^6} - \frac{2}{A^2} - 2 A^6 + 2 A^{10} - A^{14} + A^{18}\right\}\right\}$
- » $\left\{0.46875, \left\{55, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{3}{A^8} - A^4 + 3 A^8 - 2 A^{12} + 2 A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.265625, \left\{56, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 3 A^4 + 2 A^8 - 3 A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.359375, \left\{57, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2 A^2 + 2 A^6 - 4 A^{10} + 3 A^{14} - 2 A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{58, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 2 A^4 + 2 A^8 - 3 A^{12} + 2 A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.265625, \left\{59, -\frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{4}{A^{12}} - \frac{2}{A^8} - 3 A^4 + 3 A^8 - 3 A^{12} + 2 A^{16} - A^{20}\right\}\right\}$

- » $\left\{0.25, \left\{60, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{4}{A^{16}} + \frac{3}{A^{12}} - \frac{3}{A^8} - 3A^4 + 4A^8 - 3A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.359375, \left\{61, -\frac{1}{A^{28}} + \frac{1}{A^{24}} - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{1}{A^{12}} + \frac{1}{A^4} + A^4 - 2A^8 - A^{16}\right\}\right\}$
- » $\left\{0.296875, \left\{62, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{2}{A^{18}} - \frac{2}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^2} - 3A^6 + A^{10} - A^{14} + A^{18}\right\}\right\}$
- » $\left\{0.265625, \left\{63, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{2}{A^8} - 2A^4 + 3A^8 - A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.3125, \left\{64, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{3}{A^{12}} - \frac{1}{A^8} - 2A^4 + 2A^8 - 2A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.28125, \left\{65, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 + 2A^6 - 3A^{10} + 2A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{66, 2 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{4}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} + A^4 - 2A^8 + 3A^{12} - 3A^{16} + 3A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{67, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} - 2A^4 + 3A^8 - 2A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.328125, \left\{68, \frac{1}{A^{26}} - \frac{2}{A^{22}} + \frac{2}{A^{18}} - \frac{3}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^2} + A^2 - 3A^6 + 2A^{10} - A^{14} + A^{18}\right\}\right\}$
- » $\left\{0.265625, \left\{69, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - A^2 + 3A^6 - 4A^{10} + 3A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{70, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} - 2A^4 + 3A^8 - 3A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.25, \left\{71, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 2A^6 - 4A^{10} + 3A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{72, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} - 3A^4 + 3A^8 - 3A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.46875, \left\{73, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 3A^6 - 4A^{10} + 3A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{74, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{3}{A^8} - \frac{1}{A^4} - A^4 + 4A^8 - 2A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.296875, \left\{75, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{4}{A^8} - \frac{2}{A^4} - A^4 - 4A^8 + 3A^{12} - 3A^{16} + 3A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.515625, \left\{76, 2 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 2A^4 + 2A^8 - 3A^{12} - A^{20}\right\}\right\}$
- » $\left\{0.25, \left\{77, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{2}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - 2A^2 + A^6 - 4A^{10} + 2A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{78, -\frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} - 2A^8 + 4A^{12} - 2A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{79, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - 2A^2 + A^6 - 3A^{10} + 3A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.234375, \left\{80, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{4}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} + A^4 - A^8 + 4A^{12} - 3A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.25, \left\{81, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2A^2 + 2A^6 - 4A^{10} + 4A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.296875, \left\{82, -\frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} - 2A^8 + 3A^{12} - 2A^{16} + 2A^{20} - A^{24}\right\}\right\}$

- » $\left\{0.40625, \left\{83, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - A^2 + 2A^6 - 4A^{10} + 3A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{84, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{4}{A^{14}} - \frac{3}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - 2A^2 + 2A^6 - 5A^{10} + 3A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.296875, \left\{85, \frac{1}{A^{18}} - \frac{2}{A^{14}} + \frac{1}{A^{10}} - \frac{3}{A^6} + \frac{1}{A^2} - A^2 + 2A^{10} - 2A^{14} + 2A^{18} - 2A^{22} + A^{26}\right\}\right\}$
- » $\left\{0.515625, \left\{86, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{4}{A^8} - \frac{3}{A^4} - 3A^8 + 3A^{12} - 4A^{16} + 3A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{87, -\frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{3}{A^4} - 3A^8 + 4A^{12} - 3A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.296875, \left\{88, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{4}{A^{14}} - \frac{5}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - A^2 + 3A^6 - 5A^{10} + 4A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{89, \frac{1}{A^{22}} - \frac{4}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - 2A^2 + 3A^6 - 5A^{10} + 4A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{90, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{3}{A^4} + A^4 - 2A^8 + 3A^{12} - 4A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{91, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2A^2 + 2A^6 - 3A^{10} + 3A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{92, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{4}{A^{16}} + \frac{4}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 4A^4 + 3A^8 - 4A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.3125, \left\{93, \frac{1}{A^{18}} - \frac{2}{A^{14}} + \frac{2}{A^{10}} - \frac{3}{A^6} + \frac{2}{A^2} - A^2 - A^6 + A^{10} - 3A^{14} + 3A^{18} - 2A^{22} + A^{26}\right\}\right\}$
- » $\left\{0.265625, \left\{94, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 3A^4 + 2A^8 - 3A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.28125, \left\{95, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 2A^6 - 4A^{10} + 4A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.25, \left\{96, 2 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{4}{A^{12}} + \frac{4}{A^8} - \frac{3}{A^4} + A^4 - 3A^8 + 3A^{12} - 5A^{16} + 3A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.265625, \left\{97, -\frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{3}{A^{12}} + \frac{4}{A^8} - \frac{3}{A^4} - 3A^8 + 4A^{12} - 4A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{98, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{4}{A^{12}} + \frac{2}{A^8} - \frac{4}{A^4} + 2A^4 - A^8 + 4A^{12} - 4A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.296875, \left\{99, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{3}{A^2} - 3A^2 + 2A^6 - 3A^{10} + 4A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.328125, \left\{100, \frac{1}{A^{18}} - \frac{2}{A^{14}} + \frac{2}{A^{10}} - \frac{3}{A^6} + \frac{1}{A^2} - 2A^2 - A^6 + 2A^{10} - 2A^{14} + 3A^{18} - 2A^{22} + A^{26}\right\}\right\}$
- » $\left\{0.296875, \left\{101, 1 - \frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{3}{A^{12}} + \frac{4}{A^8} - \frac{2}{A^4} - 4A^8 + 3A^{12} - 4A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.34375, \left\{102, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{2}{A^4} - 3A^8 + 3A^{12} - 3A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.359375, \left\{103, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 + 3A^6 - 3A^{10} + 3A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.34375, \left\{104, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 2A^6 - 4A^{10} + 3A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.296875, \left\{105, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{4}{A^{16}} + \frac{4}{A^{12}} - \frac{3}{A^8} - 3A^4 + 4A^8 - 4A^{12} + 2A^{16} - A^{20}\right\}\right\}$

- » $\left\{0.3125, \left\{106, -\frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{4}{A^{12}} - \frac{2}{A^8} - 3A^4 + 3A^8 - 3A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.5625, \left\{107, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{5}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - A^2 + 3A^6 - 4A^{10} + 4A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.34375, \left\{108, \frac{1}{A^{26}} - \frac{2}{A^{22}} + \frac{2}{A^{18}} - \frac{3}{A^{14}} + \frac{2}{A^{10}} - \frac{1}{A^2} + A^2 - 3A^6 + 2A^{10} - 2A^{14} + A^{18}\right\}\right\}$
- » $\left\{0.3125, \left\{109, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2A^2 + 2A^6 - 4A^{10} + 4A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.3125, \left\{110, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{4}{A^{12}} + \frac{3}{A^8} - \frac{3}{A^4} + A^4 - 2A^8 + 4A^{12} - 4A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.453125, \left\{111, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{4}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 3A^4 + 2A^8 - 4A^{12} + 2A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.28125, \left\{112, -\frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{4}{A^4} - 3A^8 + 4A^{12} - 3A^{16} + 3A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.296875, \left\{113, \frac{1}{A^{22}} - \frac{4}{A^{18}} + \frac{5}{A^{14}} - \frac{4}{A^{10}} + \frac{4}{A^6} - \frac{1}{A^2} - 2A^2 + 3A^6 - 6A^{10} + 4A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.515625, \left\{114, -\frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{4}{A^{16}} + \frac{4}{A^{12}} - \frac{3}{A^8} - 4A^4 + 4A^8 - 3A^{12} + 3A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.28125, \left\{115, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{5}{A^{14}} - \frac{5}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 3A^6 - 5A^{10} + 5A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{116, 1 - \frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{4}{A^{12}} + \frac{3}{A^8} - \frac{4}{A^4} + A^4 - 3A^8 + 4A^{12} - 4A^{16} + 3A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{117, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{5}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 3A^6 - 5A^{10} + 4A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.25, \left\{118, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 3A^6 - 4A^{10} + 4A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.25, \left\{119, 1 - \frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{4}{A^{12}} + \frac{4}{A^8} - \frac{4}{A^4} + A^4 - 3A^8 + 4A^{12} - 5A^{16} + 3A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.28125, \left\{120, 2 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{6}{A^{16}} + \frac{3}{A^{12}} - \frac{4}{A^8} + \frac{1}{A^4} - 3A^4 + 5A^8 - 4A^{12} + 3A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.25, \left\{121, \frac{1}{A^{22}} - \frac{4}{A^{18}} + \frac{5}{A^{14}} - \frac{5}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 4A^6 - 5A^{10} + 5A^{14} - 3A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.265625, \left\{122, -\frac{1}{A^{20}} + \frac{4}{A^{16}} - \frac{4}{A^{12}} + \frac{4}{A^8} - \frac{4}{A^4} - 4A^8 + 5A^{12} - 4A^{16} + 3A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.265625, \left\{123, \frac{1}{A^{22}} - \frac{4}{A^{18}} + \frac{5}{A^{14}} - \frac{5}{A^{10}} + \frac{4}{A^6} - \frac{2}{A^2} - 2A^2 + 4A^6 - 5A^{10} + 5A^{14} - 4A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.296875, \left\{124, \frac{1}{A^{12}} + \frac{1}{A^8} - A^4 - A^8 - A^{12} - A^{16}\right\}\right\}$
- » $\left\{0.359375, \left\{125, \frac{1}{A^{18}} - \frac{1}{A^6} - \frac{1}{A^2} - A^2 - A^6 + A^{18}\right\}\right\}$
- » $\left\{0.28125, \left\{126, \frac{1}{A^{14}} - \frac{1}{A^{10}} - \frac{2}{A^2} - A^2 - A^{10} + A^{14} + A^{22}\right\}\right\}$
- » $\left\{0.40625, \left\{127, 1 - \frac{2}{A^{12}} - \frac{2}{A^4} + 2A^{12} - A^{16} + A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.484375, \left\{128, \frac{1}{A^{12}} + \frac{1}{A^4} - A^4 - A^8 - A^{12} - A^{20}\right\}\right\}$

- » $\left\{0.28125, \left\{129, \frac{1}{A^{14}} - \frac{1}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 - A^{10} + A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{130, \frac{1}{A^{18}} - \frac{1}{A^{14}} - \frac{1}{A^6} - \frac{1}{A^2} - A^2 - A^6 + A^{10} + A^{18}\right\}\right\}$
- » $\left\{0.265625, \left\{131, -\frac{2}{A^{16}} + \frac{1}{A^{12}} - \frac{2}{A^8} + 2A^8 - A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.265625, \left\{132, -\frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^{18}\right\}\right\}$
- » $\left\{0.28125, \left\{133, -\frac{1}{A^{16}} - \frac{2}{A^8} + A^8 + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.3125, \left\{134, -\frac{1}{A^{16}} + \frac{2}{A^{12}} + \frac{1}{A^4} - A^4 - 2A^{12} - A^{20}\right\}\right\}$
- » $\left\{0.265625, \left\{135, \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 - 2A^{10} + 2A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.28125, \left\{136, -1 + \frac{1}{A^{12}} - \frac{1}{A^8} - A^4 + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.296875, \left\{137, -\frac{1}{A^{16}} + \frac{1}{A^{12}} - \frac{2}{A^8} + A^8 - A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.4375, \left\{138, -\frac{2}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - A^4 + A^8 - 2A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.34375, \left\{139, 1 + \frac{1}{A^{20}} - A^4 - A^8 - A^{12} - A^{16}\right\}\right\}$
- » $\left\{0.328125, \left\{140, -\frac{1}{A^{14}} - A^2 - A^6 + A^{18}\right\}\right\}$
- » $\left\{0.53125, \left\{141, -1 - \frac{1}{A^{16}} + \frac{1}{A^{12}} - \frac{1}{A^8} - A^4 + A^8 + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.421875, \left\{142, -1 + \frac{2}{A^{12}} - A^4 - A^{12} - A^{20}\right\}\right\}$
- » $\left\{0.359375, \left\{143, \frac{1}{A^{14}} - \frac{2}{A^{10}} - \frac{2}{A^2} + A^6 - A^{10} + A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.375, \left\{144, 2 - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{2}{A^4} - A^8 + A^{12} - 2A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.515625, \left\{145, -\frac{1}{A^{18}} - \frac{1}{A^{14}} - A^2 + A^{18}\right\}\right\}$
- » $\left\{0.34375, \left\{146, \frac{1}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} + A^6 - A^{10} + A^{14} - 2A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.375, \left\{147, -1 - \frac{1}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} - A^4 + A^8 - A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.328125, \left\{148, \frac{1}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 - A^{10} + 2A^{14} - A^{18} + A^{22}\right\}\right\}$
- » $\left\{0.359375, \left\{149, 1 - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{3}{A^4} + 2A^{12} - 2A^{16} + 2A^{20} - A^{24}\right\}\right\}$
- » $\left\{0.328125, \left\{150, -\frac{1}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - A^4 - 2A^{12} + A^{16} - A^{20}\right\}\right\}$
- » $\left\{0.328125, \left\{151, \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - A^2 - 2A^{10} + 2A^{14} - 2A^{18} + A^{22}\right\}\right\}$

$$\begin{aligned}
& \gg \left\{ 0.40625, \left\{ 152, 1 - \frac{1}{A^{16}} - \frac{1}{A^{12}} - \frac{1}{A^8} - \frac{2}{A^4} + A^8 + A^{12} + A^{20} - A^{24} \right\} \right\} \\
& \gg \left\{ 0.34375, \left\{ 153, \frac{1}{A^{18}} - \frac{2}{A^2} - A^2 - A^6 + A^{22} \right\} \right\} \\
& \gg \left\{ 0.25, \left\{ 154, -\frac{1}{A^{20}} + \frac{1}{A^{16}} + \frac{1}{A^8} + \frac{1}{A^4} - 2A^8 - A^{16} - A^{20} \right\} \right\} \\
& \gg \left\{ 0.3125, \left\{ 155, -\frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{1}{A^{12}} + \frac{1}{A^8} - 2A^8 + A^{12} - A^{16} \right\} \right\} \\
& \gg \left\{ 0.328125, \left\{ 156, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{1}{A^{14}} - \frac{2}{A^{10}} - A^2 + 2A^6 - 2A^{10} + A^{14} \right\} \right\} \\
& \gg \left\{ 0.296875, \left\{ 157, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{2}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} - \frac{1}{A^4} - 3A^4 + 2A^8 - 2A^{12} \right\} \right\} \\
& \gg \left\{ 0.3125, \left\{ 158, 2 - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{2}{A^4} - A^8 + A^{12} - 3A^{16} + 2A^{20} - A^{24} \right\} \right\} \\
& \gg \left\{ 0.28125, \left\{ 159, \frac{1}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} + A^6 - A^{10} + 2A^{14} - 2A^{18} + A^{22} \right\} \right\} \\
& \gg \left\{ 0.28125, \left\{ 160, -1 + \frac{2}{A^{12}} - \frac{1}{A^8} - A^4 - A^{12} + A^{16} - A^{20} \right\} \right\} \\
& \gg \left\{ 0.421875, \left\{ 161, -\frac{1}{A^{20}} - \frac{1}{A^{16}} - \frac{1}{A^8} + A^{16} \right\} \right\} \\
& \gg \left\{ 0.328125, \left\{ 162, 1 - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{2}{A^4} + 2A^{12} - 2A^{16} + A^{20} - A^{24} \right\} \right\} \\
& \gg \left\{ 0.25, \left\{ 163, \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} + A^6 - 2A^{10} + 2A^{14} - 3A^{18} + A^{22} \right\} \right\} \\
& \gg \left\{ 0.265625, \left\{ 164, \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} + A^6 - 2A^{10} + 2A^{14} - 2A^{18} + A^{22} \right\} \right\} \\
& \gg \left\{ 0.265625, \left\{ 165, -1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{1}{A^{12}} + \frac{2}{A^8} - \frac{1}{A^4} - 2A^8 + 2A^{12} - 2A^{16} \right\} \right\} \\
\text{Out[]} = & \left\{ \left\{ 0.328125, \left\{ 1, -\frac{1}{A^{28}} - \frac{1}{A^{20}} + A^4 - A^{16} \right\} \right\}, \left\{ 0.328125, \left\{ 2, -1 - \frac{1}{A^{16}} - \frac{1}{A^8} + A^{16} + A^{24} - A^{28} \right\} \right\}, \right. \\
& \left\{ 0.34375, \left\{ 3, 1 - \frac{1}{A^{24}} - \frac{1}{A^{16}} + \frac{1}{A^{12}} - \frac{1}{A^8} + A^8 - A^{12} - A^{20} \right\} \right\}, \\
& \left\{ 0.328125, \left\{ 4, -\frac{1}{A^{16}} - \frac{1}{A^8} + \frac{1}{A^4} + A^4 - A^{12} - A^{20} + A^{24} - A^{28} \right\} \right\}, \\
& \left\{ 0.296875, \left\{ 5, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^2} - 2A^6 - A^{14} + A^{18} \right\} \right\}, \\
& \left\{ 0.296875, \left\{ 6, 1 - \frac{1}{A^{20}} - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{1}{A^4} - A^8 + 2A^{12} - A^{16} + A^{20} - A^{24} \right\} \right\}, \\
& \left\{ 0.421875, \left\{ 7, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{1}{A^{12}} - \frac{2}{A^8} - A^4 + 2A^8 - A^{12} + A^{16} - A^{20} \right\} \right\}, \\
& \left\{ 0.34375, \left\{ 8, -1 - \frac{1}{A^{16}} - \frac{1}{A^8} + \frac{1}{A^4} + A^{16} - A^{20} + A^{24} - A^{28} \right\} \right\}, \\
& \left\{ 0.3125, \left\{ 9, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{1}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} - 2A^4 + A^8 - A^{12} + A^{16} - A^{20} \right\} \right\}, \\
& \left. \left\{ 0.3125, \left\{ 10, \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{2}{A^6} + \frac{1}{A^2} - A^2 + A^{10} - 2A^{14} + A^{18} - 2A^{22} + A^{26} \right\} \right\}, \right.
\end{aligned}$$

$$\begin{aligned}
&\{0.546875, \{11, 1 - \frac{1}{A^{20}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{1}{A^4} - A^8 + 2 A^{12} - 2 A^{16} + A^{20} - A^{24}\}\}, \\
&\{0.296875, \{12, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 3 A^{10} + A^{14} - A^{18} + A^{22}\}\}, \\
&\{0.265625, \{13, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 2 A^4 + 2 A^8 - 2 A^{12} + A^{16} - A^{20}\}\}, \\
&\{0.28125, \{14, -\frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} - A^8 + 3 A^{12} - 2 A^{16} + 2 A^{20} - A^{24}\}\}, \\
&\{0.3125, \{15, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{2}{A^{18}} - \frac{2}{A^{14}} - \frac{1}{A^6} - \frac{1}{A^2} + A^2 - 2 A^6 + A^{10} - A^{14} + A^{18}\}\}, \\
&\{0.328125, \{16, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 2 A^4 + A^8 - 2 A^{12} + A^{16} - A^{20}\}\}, \\
&\{0.328125, \{17, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{1}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 2 A^{10} + A^{14} - A^{18} + A^{22}\}\}, \\
&\{0.28125, \{18, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{2}{A^4} - 2 A^8 + 2 A^{12} - 2 A^{16} + 2 A^{20} - A^{24}\}\}, \\
&\{0.34375, \{19, \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{3}{A^6} + \frac{1}{A^2} - A^2 + A^{10} - 2 A^{14} + 2 A^{18} - 2 A^{22} + A^{26}\}\}, \\
&\{0.484375, \{20, 1 - \frac{1}{A^{24}} - \frac{2}{A^{16}} + \frac{1}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - A^4 + A^8 - A^{12} + A^{16} - A^{20}\}\}, \\
&\{0.3125, \{21, -\frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{2}{A^4} - A^8 + 3 A^{12} - A^{16} + A^{20} - A^{24}\}\}, \\
&\{0.296875, \{22, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{1}{A^4} - 2 A^8 + 2 A^{12} - 2 A^{16} + A^{20} - A^{24}\}\}, \\
&\{0.40625, \{23, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 3 A^{10} + 2 A^{14} - 2 A^{18} + A^{22}\}\}, \\
&\{0.28125, \{24, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{2}{A^8} - A^4 + 3 A^8 - 2 A^{12} + A^{16} - A^{20}\}\}, \\
&\{0.296875, \{25, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} + A^4 - A^8 + 3 A^{12} - 3 A^{16} + 2 A^{20} - A^{24}\}\}, \\
&\{0.296875, \{26, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{3}{A^8} - \frac{2}{A^4} - 2 A^8 + 2 A^{12} - 3 A^{16} + 2 A^{20} - A^{24}\}\}, \\
&\{0.28125, \{27, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{2}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 2 A^6 - 3 A^{10} + 3 A^{14} - 2 A^{18} + A^{22}\}\}, \\
&\{0.296875, \{28, \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{2}{A^{10}} - \frac{2}{A^6} + \frac{1}{A^2} - 2 A^2 - A^6 + A^{10} - 2 A^{14} + 2 A^{18} - 2 A^{22} + A^{26}\}\}, \\
&\{0.265625, \{29, 2 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{2}{A^4} + A^4 - 2 A^8 + 2 A^{12} - 3 A^{16} + 2 A^{20} - A^{24}\}\}, \\
&\{0.28125, \{30, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{3}{A^8} - 2 A^4 + 3 A^8 - 2 A^{12} + 2 A^{16} - A^{20}\}\}, \\
&\{0.421875, \{31, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 + 2 A^6 - 2 A^{10} + 2 A^{14} - 2 A^{18} + A^{22}\}\}, \\
&\{0.28125, \{32, -\frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} - 3 A^4 + 3 A^8 - 2 A^{12} + 2 A^{16} - A^{20}\}\}, \\
&\{0.4375, \{33, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 2 A^6 - 3 A^{10} + 2 A^{14} - 2 A^{18} + A^{22}\}\},
\end{aligned}$$

$$\begin{aligned}
& \{0.296875, \{34, \frac{1}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^6} + \frac{1}{A^2} - A^2 - A^6 - 2A^{14} + A^{18} - A^{22} + A^{26}\}\}, \\
& \{0.25, \{35, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{1}{A^4} - 2A^8 + 2A^{12} - 2A^{16} + A^{20} - A^{24}\}\}, \\
& \{0.265625, \{36, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{2}{A^{12}} - \frac{2}{A^8} - 2A^4 + 2A^8 - A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.25, \{37, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 3A^{10} + 2A^{14} - A^{18} + A^{22}\}\}, \\
& \{0.28125, \{38, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 2A^4 + 2A^8 - 2A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.28125, \{39, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{2}{A^4} - 2A^8 + 3A^{12} - 2A^{16} + 2A^{20} - A^{24}\}\}, \\
& \{0.265625, \{40, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - 2A^2 + A^6 - 4A^{10} + 3A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.40625, \{41, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} + A^4 - 2A^8 + 3A^{12} - 3A^{16} + 2A^{20} - A^{24}\}\}, \\
& \{0.28125, \{42, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - A^2 + 3A^6 - 3A^{10} + 3A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.265625, \{43, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2A^2 + 2A^6 - 3A^{10} + 3A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.265625, \{44, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{3}{A^4} - 3A^8 + 3A^{12} - 3A^{16} + 3A^{20} - A^{24}\}\}, \\
& \{0.28125, \{45, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - A^2 + 3A^6 - 4A^{10} + 3A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.328125, \{46, -1 - \frac{1}{A^{28}} + \frac{1}{A^{24}} - \frac{1}{A^{20}} + \frac{1}{A^{16}} + \frac{1}{A^8} + \frac{1}{A^4} - 2A^8 - A^{16}\}\}, \\
& \{0.46875, \{47, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{2}{A^{18}} - \frac{1}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^6} - \frac{2}{A^2} - 2A^6 + A^{10} - A^{14} + A^{18}\}\}, \\
& \{0.3125, \{48, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - 2A^2 + A^6 - 2A^{10} + 2A^{14} - A^{18} + A^{22}\}\}, \\
& \{0.28125, \{49, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{3}{A^{12}} + \frac{1}{A^8} - \frac{3}{A^4} + A^4 - A^8 + 3A^{12} - 2A^{16} + 2A^{20} - A^{24}\}\}, \\
& \{0.3125, \{50, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{3}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 2A^4 + A^8 - 3A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.28125, \{51, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2A^2 + A^6 - 3A^{10} + 3A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.3125, \{52, \frac{1}{A^{26}} - \frac{2}{A^{22}} + \frac{3}{A^{18}} - \frac{2}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^6} - \frac{2}{A^2} + A^2 - 3A^6 + 2A^{10} - A^{14} + A^{18}\}\}, \\
& \{0.265625, \{53, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{4}{A^{16}} + \frac{2}{A^{12}} - \frac{3}{A^8} - 2A^4 + 4A^8 - 2A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.296875, \{54, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{2}{A^{18}} - \frac{2}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^6} - \frac{2}{A^2} - 2A^6 + 2A^{10} - A^{14} + A^{18}\}\}, \\
& \{0.46875, \{55, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{3}{A^8} - A^4 + 3A^8 - 2A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.265625, \{56, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 3A^4 + 2A^8 - 3A^{12} + A^{16} - A^{20}\}\},
\end{aligned}$$

$$\begin{aligned}
& \{0.359375, \{57, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2A^2 + 2A^6 - 4A^{10} + 3A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.265625, \{58, 1 - \frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 2A^4 + 2A^8 - 3A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.265625, \{59, -\frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{4}{A^{12}} - \frac{2}{A^8} - 3A^4 + 3A^8 - 3A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.25, \{60, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{4}{A^{16}} + \frac{3}{A^{12}} - \frac{3}{A^8} - 3A^4 + 4A^8 - 3A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.359375, \{61, -\frac{1}{A^{28}} + \frac{1}{A^{24}} - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{1}{A^{12}} + \frac{1}{A^4} + A^4 - 2A^8 - A^{16}\}\}, \\
& \{0.296875, \{62, \frac{1}{A^{26}} - \frac{1}{A^{22}} + \frac{2}{A^{18}} - \frac{2}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^2} - 3A^6 + A^{10} - A^{14} + A^{18}\}\}, \\
& \{0.265625, \{63, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{2}{A^8} - 2A^4 + 3A^8 - A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.3125, \{64, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{2}{A^{16}} + \frac{3}{A^{12}} - \frac{1}{A^8} - 2A^4 + 2A^8 - 2A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.28125, \{65, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 + 2A^6 - 3A^{10} + 2A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.28125, \{66, 2 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{4}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} + A^4 - 2A^8 + 3A^{12} - 3A^{16} + 3A^{20} - A^{24}\}\}, \\
& \{0.28125, \{67, -\frac{1}{A^{24}} + \frac{1}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} - 2A^4 + 3A^8 - 2A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.328125, \{68, \frac{1}{A^{26}} - \frac{2}{A^{22}} + \frac{2}{A^{18}} - \frac{3}{A^{14}} + \frac{1}{A^{10}} - \frac{1}{A^2} + A^2 - 3A^6 + 2A^{10} - A^{14} + A^{18}\}\}, \\
& \{0.265625, \{69, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - A^2 + 3A^6 - 4A^{10} + 3A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.265625, \{70, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} - 2A^4 + 3A^8 - 3A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.25, \{71, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 2A^6 - 4A^{10} + 3A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.28125, \{72, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} - 3A^4 + 3A^8 - 3A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.46875, \{73, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 3A^6 - 4A^{10} + 3A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.28125, \{74, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{3}{A^8} - \frac{1}{A^4} - A^4 + 4A^8 - 2A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.296875, \{75, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{4}{A^8} - \frac{2}{A^4} - A^4 - 4A^8 + 3A^{12} - 3A^{16} + 3A^{20} - A^{24}\}\}, \\
& \{0.515625, \{76, 2 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - 2A^4 + 2A^8 - 3A^{12} - A^{20}\}\}, \\
& \{0.25, \{77, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{2}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - 2A^2 + A^6 - 4A^{10} + 2A^{14} - A^{18} + A^{22}\}\}, \\
& \{0.265625, \{78, -\frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} - 2A^8 + 4A^{12} - 2A^{16} + 2A^{20} - A^{24}\}\}, \\
& \{0.28125, \{79, \frac{1}{A^{22}} - \frac{1}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - 2A^2 + A^6 - 3A^{10} + 3A^{14} - A^{18} + A^{22}\}\},
\end{aligned}$$

$$\begin{aligned}
& \{0.234375, \{80, 1 - \frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{4}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} + A^4 - A^8 + 4 A^{12} - 3 A^{16} + 2 A^{20} - A^{24}\}\}, \\
& \{0.25, \{81, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2 A^2 + 2 A^6 - 4 A^{10} + 4 A^{14} - 2 A^{18} + A^{22}\}\}, \\
& \{0.296875, \{82, -\frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{3}{A^4} - 2 A^8 + 3 A^{12} - 2 A^{16} + 2 A^{20} - A^{24}\}\}, \\
& \{0.40625, \{83, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - A^2 + 2 A^6 - 4 A^{10} + 3 A^{14} - 3 A^{18} + A^{22}\}\}, \\
& \{0.265625, \{84, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{4}{A^{14}} - \frac{3}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - 2 A^2 + 2 A^6 - 5 A^{10} + 3 A^{14} - 2 A^{18} + A^{22}\}\}, \\
& \{0.296875, \{85, \frac{1}{A^{18}} - \frac{2}{A^{14}} + \frac{1}{A^{10}} - \frac{3}{A^6} + \frac{1}{A^2} - A^2 + 2 A^{10} - 2 A^{14} + 2 A^{18} - 2 A^{22} + A^{26}\}\}, \\
& \{0.515625, \{86, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{4}{A^8} - \frac{3}{A^4} - 3 A^8 + 3 A^{12} - 4 A^{16} + 3 A^{20} - A^{24}\}\}, \\
& \{0.28125, \{87, -\frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{3}{A^4} - 3 A^8 + 4 A^{12} - 3 A^{16} + 2 A^{20} - A^{24}\}\}, \\
& \{0.296875, \{88, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{4}{A^{14}} - \frac{5}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - A^2 + 3 A^6 - 5 A^{10} + 4 A^{14} - 3 A^{18} + A^{22}\}\}, \\
& \{0.265625, \{89, \frac{1}{A^{22}} - \frac{4}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{1}{A^2} - 2 A^2 + 3 A^6 - 5 A^{10} + 4 A^{14} - 2 A^{18} + A^{22}\}\}, \\
& \{0.265625, \{90, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{3}{A^4} + A^4 - 2 A^8 + 3 A^{12} - 4 A^{16} + 2 A^{20} - A^{24}\}\}, \\
& \{0.28125, \{91, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2 A^2 + 2 A^6 - 3 A^{10} + 3 A^{14} - 2 A^{18} + A^{22}\}\}, \\
& \{0.28125, \{92, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{4}{A^{16}} + \frac{4}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 4 A^4 + 3 A^8 - 4 A^{12} + 2 A^{16} - A^{20}\}\}, \\
& \{0.3125, \{93, \frac{1}{A^{18}} - \frac{2}{A^{14}} + \frac{2}{A^{10}} - \frac{3}{A^6} + \frac{2}{A^2} - A^2 - A^6 + A^{10} - 3 A^{14} + 3 A^{18} - 2 A^{22} + A^{26}\}\}, \\
& \{0.265625, \{94, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{3}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 3 A^4 + 2 A^8 - 3 A^{12} + 2 A^{16} - A^{20}\}\}, \\
& \{0.28125, \{95, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2 A^2 + 2 A^6 - 4 A^{10} + 4 A^{14} - 3 A^{18} + A^{22}\}\}, \\
& \{0.25, \{96, 2 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{4}{A^{12}} + \frac{4}{A^8} - \frac{3}{A^4} + A^4 - 3 A^8 + 3 A^{12} - 5 A^{16} + 3 A^{20} - A^{24}\}\}, \\
& \{0.265625, \{97, -\frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{3}{A^{12}} + \frac{4}{A^8} - \frac{3}{A^4} - 3 A^8 + 4 A^{12} - 4 A^{16} + 2 A^{20} - A^{24}\}\}, \\
& \{0.28125, \{98, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{4}{A^{12}} + \frac{2}{A^8} - \frac{4}{A^4} + 2 A^4 - A^8 + 4 A^{12} - 4 A^{16} + 2 A^{20} - A^{24}\}\}, \\
& \{0.296875, \{99, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{3}{A^2} - 3 A^2 + 2 A^6 - 3 A^{10} + 4 A^{14} - 2 A^{18} + A^{22}\}\}, \\
& \{0.328125, \{100, \frac{1}{A^{18}} - \frac{2}{A^{14}} + \frac{2}{A^{10}} - \frac{3}{A^6} + \frac{1}{A^2} - 2 A^2 - A^6 + 2 A^{10} - 2 A^{14} + 3 A^{18} - 2 A^{22} + A^{26}\}\}, \\
& \{0.296875, \{101, 1 - \frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{3}{A^{12}} + \frac{4}{A^8} - \frac{2}{A^4} - 4 A^8 + 3 A^{12} - 4 A^{16} + 2 A^{20} - A^{24}\}\}, \\
& \{0.34375, \{102, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{2}{A^4} - 3 A^8 + 3 A^{12} - 3 A^{16} + 2 A^{20} - A^{24}\}\},
\end{aligned}$$

$$\begin{aligned}
& \{0.359375, \{103, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 + 3A^6 - 3A^{10} + 3A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.34375, \{104, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{3}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{1}{A^2} - A^2 + 2A^6 - 4A^{10} + 3A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.296875, \{105, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{4}{A^{16}} + \frac{4}{A^{12}} - \frac{3}{A^8} - 3A^4 + 4A^8 - 4A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.3125, \{106, -\frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{4}{A^{12}} - \frac{2}{A^8} - 3A^4 + 3A^8 - 3A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.5625, \{107, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{5}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - A^2 + 3A^6 - 4A^{10} + 4A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.34375, \{108, \frac{1}{A^{26}} - \frac{2}{A^{22}} + \frac{2}{A^{18}} - \frac{3}{A^{14}} + \frac{2}{A^{10}} - \frac{1}{A^2} + A^2 - 3A^6 + 2A^{10} - 2A^{14} + A^{18}\}\}, \\
& \{0.3125, \{109, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - 2A^2 + 2A^6 - 4A^{10} + 4A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.3125, \{110, 1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{4}{A^{12}} + \frac{3}{A^8} - \frac{3}{A^4} + A^4 - 2A^8 + 4A^{12} - 4A^{16} + 2A^{20} - A^{24}\}\}, \\
& \{0.453125, \{111, 1 - \frac{1}{A^{24}} + \frac{2}{A^{20}} - \frac{3}{A^{16}} + \frac{4}{A^{12}} - \frac{2}{A^8} + \frac{1}{A^4} - 3A^4 + 2A^8 - 4A^{12} + 2A^{16} - A^{20}\}\}, \\
& \{0.28125, \{112, -\frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{3}{A^{12}} + \frac{3}{A^8} - \frac{4}{A^4} - 3A^8 + 4A^{12} - 3A^{16} + 3A^{20} - A^{24}\}\}, \\
& \{0.296875, \{113, \frac{1}{A^{22}} - \frac{4}{A^{18}} + \frac{5}{A^{14}} - \frac{4}{A^{10}} + \frac{4}{A^6} - \frac{1}{A^2} - 2A^2 + 3A^6 - 6A^{10} + 4A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.515625, \{114, -\frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{4}{A^{16}} + \frac{4}{A^{12}} - \frac{3}{A^8} - 4A^4 + 4A^8 - 3A^{12} + 3A^{16} - A^{20}\}\}, \\
& \{0.28125, \{115, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{5}{A^{14}} - \frac{5}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 3A^6 - 5A^{10} + 5A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.28125, \{116, 1 - \frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{4}{A^{12}} + \frac{3}{A^8} - \frac{4}{A^4} + A^4 - 3A^8 + 4A^{12} - 4A^{16} + 3A^{20} - A^{24}\}\}, \\
& \{0.28125, \{117, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{5}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 3A^6 - 5A^{10} + 4A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.25, \{118, \frac{1}{A^{22}} - \frac{3}{A^{18}} + \frac{4}{A^{14}} - \frac{4}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 3A^6 - 4A^{10} + 4A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.25, \{119, 1 - \frac{1}{A^{20}} + \frac{3}{A^{16}} - \frac{4}{A^{12}} + \frac{4}{A^8} - \frac{4}{A^4} + A^4 - 3A^8 + 4A^{12} - 5A^{16} + 3A^{20} - A^{24}\}\}, \\
& \{0.28125, \{120, 2 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{6}{A^{16}} + \frac{3}{A^{12}} - \frac{4}{A^8} + \frac{1}{A^4} - 3A^4 + 5A^8 - 4A^{12} + 3A^{16} - A^{20}\}\}, \\
& \{0.25, \{121, \frac{1}{A^{22}} - \frac{4}{A^{18}} + \frac{5}{A^{14}} - \frac{5}{A^{10}} + \frac{3}{A^6} - \frac{2}{A^2} - 2A^2 + 4A^6 - 5A^{10} + 5A^{14} - 3A^{18} + A^{22}\}\}, \\
& \{0.265625, \{122, -\frac{1}{A^{20}} + \frac{4}{A^{16}} - \frac{4}{A^{12}} + \frac{4}{A^8} - \frac{4}{A^4} - 4A^8 + 5A^{12} - 4A^{16} + 3A^{20} - A^{24}\}\}, \\
& \{0.265625, \{123, \frac{1}{A^{22}} - \frac{4}{A^{18}} + \frac{5}{A^{14}} - \frac{5}{A^{10}} + \frac{4}{A^6} - \frac{2}{A^2} - 2A^2 + 4A^6 - 5A^{10} + 5A^{14} - 4A^{18} + A^{22}\}\}, \\
& \{0.296875, \{124, \frac{1}{A^{12}} + \frac{1}{A^8} - A^4 - A^8 - A^{12} - A^{16}\}\}, \{0.359375, \{125, \frac{1}{A^{18}} - \frac{1}{A^6} - \frac{1}{A^2} - A^2 - A^6 + A^{18}\}\}, \\
& \{0.28125, \{126, \frac{1}{A^{14}} - \frac{1}{A^{10}} - \frac{2}{A^2} - A^2 - A^{10} + A^{14} + A^{22}\}\},
\end{aligned}$$

$$\begin{aligned}
& \{0.40625, \{127, 1 - \frac{2}{A^{12}} - \frac{2}{A^4} + 2A^{12} - A^{16} + A^{20} - A^{24}\}\}, \\
& \{0.484375, \{128, \frac{1}{A^{12}} + \frac{1}{A^4} - A^4 - A^8 - A^{12} - A^{20}\}\}, \\
& \{0.28125, \{129, \frac{1}{A^{14}} - \frac{1}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 - A^{10} + A^{14} - A^{18} + A^{22}\}\}, \\
& \{0.28125, \{130, \frac{1}{A^{18}} - \frac{1}{A^{14}} - \frac{1}{A^6} - \frac{1}{A^2} - A^2 - A^6 + A^{10} + A^{18}\}\}, \\
& \{0.265625, \{131, -\frac{2}{A^{16}} + \frac{1}{A^{12}} - \frac{2}{A^8} + 2A^8 - A^{12} + A^{16} - A^{20}\}\}, \{0.265625, \{132, -\frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^{18}\}\}, \\
& \{0.28125, \{133, -\frac{1}{A^{16}} - \frac{2}{A^8} + A^8 + A^{16} - A^{20}\}\}, \{0.3125, \{134, -\frac{1}{A^{16}} + \frac{2}{A^{12}} + \frac{1}{A^4} - A^4 - 2A^{12} - A^{20}\}\}, \\
& \{0.265625, \{135, \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 - 2A^{10} + 2A^{14} - A^{18} + A^{22}\}\}, \\
& \{0.28125, \{136, -1 + \frac{1}{A^{12}} - \frac{1}{A^8} - A^4 + A^{16} - A^{20}\}\}, \\
& \{0.296875, \{137, -\frac{1}{A^{16}} + \frac{1}{A^{12}} - \frac{2}{A^8} + A^8 - A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.4375, \{138, -\frac{2}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - A^4 + A^8 - 2A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.34375, \{139, 1 + \frac{1}{A^{20}} - A^4 - A^8 - A^{12} - A^{16}\}\}, \{0.328125, \{140, -\frac{1}{A^{14}} - A^2 - A^6 + A^{18}\}\}, \\
& \{0.53125, \{141, -1 - \frac{1}{A^{16}} + \frac{1}{A^{12}} - \frac{1}{A^8} - A^4 + A^8 + A^{16} - A^{20}\}\}, \\
& \{0.421875, \{142, -1 + \frac{2}{A^{12}} - A^4 - A^{12} - A^{20}\}\}, \\
& \{0.359375, \{143, \frac{1}{A^{14}} - \frac{2}{A^{10}} - \frac{2}{A^2} + A^6 - A^{10} + A^{14} - A^{18} + A^{22}\}\}, \\
& \{0.375, \{144, 2 - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{2}{A^4} - A^8 + A^{12} - 2A^{16} + 2A^{20} - A^{24}\}\}, \\
& \{0.515625, \{145, -\frac{1}{A^{18}} - \frac{1}{A^{14}} - A^2 + A^{18}\}\}, \\
& \{0.34375, \{146, \frac{1}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} + A^6 - A^{10} + A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.375, \{147, -1 - \frac{1}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} - A^4 + A^8 - A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.328125, \{148, \frac{1}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} - A^2 - A^{10} + 2A^{14} - A^{18} + A^{22}\}\}, \\
& \{0.359375, \{149, 1 - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{3}{A^4} + 2A^{12} - 2A^{16} + 2A^{20} - A^{24}\}\}, \\
& \{0.328125, \{150, -\frac{1}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} + \frac{1}{A^4} - A^4 - 2A^{12} + A^{16} - A^{20}\}\}, \\
& \{0.328125, \{151, \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} - A^2 - 2A^{10} + 2A^{14} - 2A^{18} + A^{22}\}\}, \\
& \{0.40625, \{152, 1 - \frac{1}{A^{16}} - \frac{1}{A^{12}} - \frac{1}{A^8} - \frac{2}{A^4} + A^8 + A^{12} + A^{20} - A^{24}\}\},
\end{aligned}$$

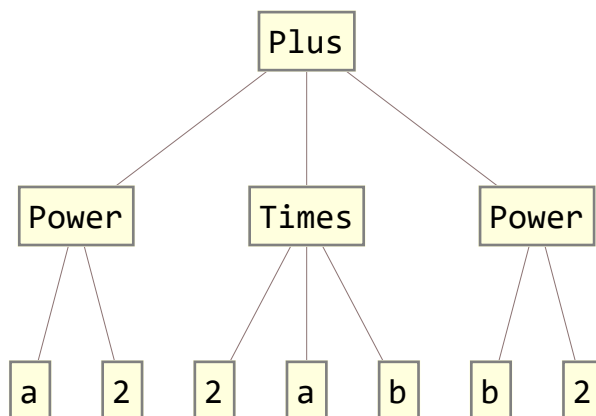
$$\begin{aligned} & \left\{ 0.34375, \left\{ 153, \frac{1}{A^{18}} - \frac{2}{A^2} - A^2 - A^6 + A^{22} \right\} \right\}, \left\{ 0.25, \left\{ 154, -\frac{1}{A^{20}} + \frac{1}{A^{16}} + \frac{1}{A^8} + \frac{1}{A^4} - 2A^8 - A^{16} - A^{20} \right\} \right\}, \\ & \left\{ 0.3125, \left\{ 155, -\frac{1}{A^{20}} + \frac{1}{A^{16}} - \frac{1}{A^{12}} + \frac{1}{A^8} - 2A^8 + A^{12} - A^{16} \right\} \right\}, \\ & \left\{ 0.328125, \left\{ 156, \frac{1}{A^{22}} - \frac{2}{A^{18}} + \frac{1}{A^{14}} - \frac{2}{A^{10}} - A^2 + 2A^6 - 2A^{10} + A^{14} \right\} \right\}, \\ & \left\{ 0.296875, \left\{ 157, 1 - \frac{1}{A^{24}} + \frac{3}{A^{20}} - \frac{2}{A^{16}} + \frac{2}{A^{12}} - \frac{1}{A^8} - \frac{1}{A^4} - 3A^4 + 2A^8 - 2A^{12} \right\} \right\}, \\ & \left\{ 0.3125, \left\{ 158, 2 - \frac{2}{A^{12}} + \frac{2}{A^8} - \frac{2}{A^4} - A^8 + A^{12} - 3A^{16} + 2A^{20} - A^{24} \right\} \right\}, \\ & \left\{ 0.28125, \left\{ 159, \frac{1}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} + A^6 - A^{10} + 2A^{14} - 2A^{18} + A^{22} \right\} \right\}, \\ & \left\{ 0.28125, \left\{ 160, -1 + \frac{2}{A^{12}} - \frac{1}{A^8} - A^4 - A^{12} + A^{16} - A^{20} \right\} \right\}, \left\{ 0.421875, \left\{ 161, -\frac{1}{A^{20}} - \frac{1}{A^{16}} - \frac{1}{A^8} + A^{16} \right\} \right\}, \\ & \left\{ 0.328125, \left\{ 162, 1 - \frac{2}{A^{12}} + \frac{1}{A^8} - \frac{2}{A^4} + 2A^{12} - 2A^{16} + A^{20} - A^{24} \right\} \right\}, \\ & \left\{ 0.25, \left\{ 163, \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{2}{A^6} - \frac{2}{A^2} + A^6 - 2A^{10} + 2A^{14} - 3A^{18} + A^{22} \right\} \right\}, \\ & \left\{ 0.265625, \left\{ 164, \frac{2}{A^{14}} - \frac{3}{A^{10}} + \frac{1}{A^6} - \frac{2}{A^2} + A^6 - 2A^{10} + 2A^{14} - 2A^{18} + A^{22} \right\} \right\}, \\ & \left\{ 0.265625, \left\{ 165, -1 - \frac{1}{A^{20}} + \frac{2}{A^{16}} - \frac{1}{A^{12}} + \frac{2}{A^8} - \frac{1}{A^4} - 2A^8 + 2A^{12} - 2A^{16} \right\} \right\} \end{aligned}$$

In[]:= **Expand** [(a + b) ^2]

Out[]:= $a^2 + 2ab + b^2$

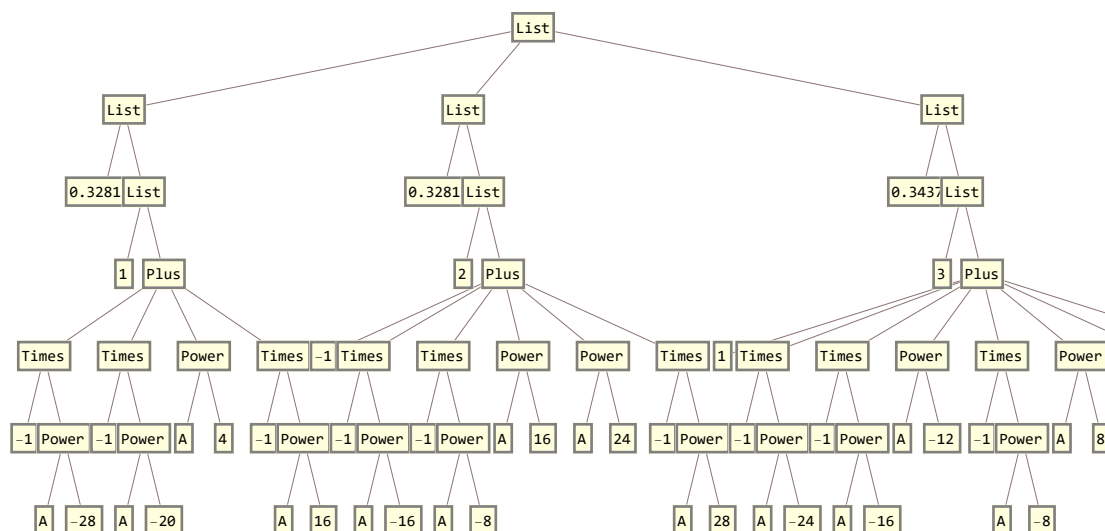
In[]:= **Expand** [(a + b) ^2] // **TreeForm**

Out[]//TreeForm=




```
In[ ]:= tab10[[1 ;; 3]] // TreeForm
```

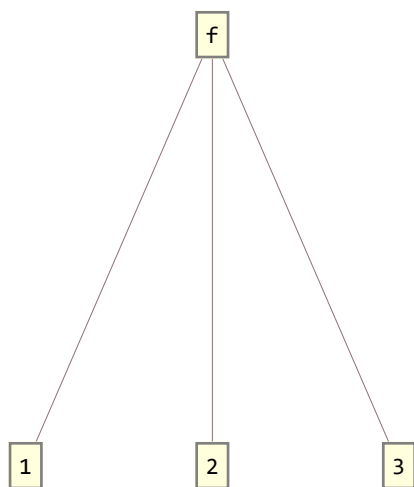
```
Out[ ]:=TreeForm=
```



```
In[ ]:= f[1, 2, 3]
```

```
Out[ ]:= f[1, 2, 3]
```

```
In[ ]:= f[1, 2, 3] // TreeForm
```



```
In[ ]:= g@@f[1, 2, 3]
```

```
Out[ ]:= g[1, 2, 3]
```

```
In[ ]:= Plus@@{1, 2, 3}
```

```
Out[ ]:= 6
```

In[]:= **Plus @@ tab10**

Out[]:= {52.625,

$$\left\{13\,695, 53 - \frac{3}{A^{28}} + \frac{8}{A^{26}} - \frac{31}{A^{24}} + \frac{28}{A^{22}} + \frac{18}{A^{20}} - \frac{59}{A^{18}} - \frac{49}{A^{16}} + \frac{112}{A^{14}} - \frac{5}{A^{12}} - \frac{141}{A^{10}} + \frac{12}{A^8} + \frac{69}{A^6} - \frac{80}{A^4} - \frac{88}{A^2} - 76 A^2 - 70 A^4 + 62 A^6 + 7 A^8 - 138 A^{10} + 18 A^{12} + 112 A^{14} - 52 A^{16} - 72 A^{18} + 30 A^{20} + 36 A^{22} - 35 A^{24} + 7 A^{26} - 3 A^{28}\right\}$$

In[]:= **165 × 166 / 2**

Out[]:= 13 695

In[]:= **KB[GST48 /. Knots]**

Out[]:= \$Aborted

```
KB[pd_PD] := Module[{p, t1, t2, t3, t4, B, d},
  SetAttributes[p, Orderless];
  t1 = pd /. X[i_, j_, k_, l_] → A * p[i, j] * p[k, l] + B * p[i, l] p[j, k];
  t2 = Expand[t1 /. PD → Times];
  t3 = t2 /. {p[i_, j_] p[j_, k_] → p[i, k]};
  t4 = t3 /. {p[i_, i_] → d, p[i_, j_] ^2 → d};
  Expand[t4 /. {B → 1/A, d → -A^2 - 1/A^2}]
]
```

In[]:= **Times @@ {1, 2, 3, 4, 5, 6, 7}**

Out[]:= 5040

In[]:= **Times @@ { }**

Out[]:= 1

In[]:= **pd = GST48 /. Knots**

Out[]:= PD[X[1, 15, 2, 14], X[29, 2, 30, 3], X[40, 4, 41, 3], X[4, 44, 5, 43], X[5, 26, 6, 27],
 X[95, 7, 96, 6], X[7, 1, 8, 96], X[8, 14, 9, 13], X[28, 9, 29, 10], X[41, 11, 42, 10],
 X[11, 43, 12, 42], X[12, 27, 13, 28], X[15, 31, 16, 30], X[61, 16, 62, 17], X[72, 17, 73, 18],
 X[83, 18, 84, 19], X[34, 20, 35, 19], X[20, 89, 21, 90], X[92, 21, 93, 22], X[22, 79, 23, 80],
 X[23, 68, 24, 69], X[24, 57, 25, 58], X[56, 25, 57, 26], X[31, 63, 32, 62], X[32, 74, 33, 73],
 X[33, 85, 34, 84], X[35, 50, 36, 51], X[81, 37, 82, 36], X[70, 38, 71, 37], X[59, 39, 60, 38],
 X[54, 39, 55, 40], X[55, 45, 56, 44], X[45, 59, 46, 58], X[46, 70, 47, 69],
 X[47, 81, 48, 80], X[91, 49, 92, 48], X[49, 91, 50, 90], X[82, 52, 83, 51], X[71, 53, 72, 52],
 X[60, 54, 61, 53], X[74, 63, 75, 64], X[85, 64, 86, 65], X[65, 76, 66, 77],
 X[66, 87, 67, 88], X[94, 67, 95, 68], X[86, 75, 87, 76], X[77, 88, 78, 89], X[93, 78, 94, 79]]

In[]:= **First[pd]**

Out[]:= X[1, 15, 2, 14]

In[]:= **Last[pd]**

Out[]:= X[93, 78, 94, 79]

In[]:= **DeleteCases[{1, 2, 3}, 2]**

Out[]:= {1, 3}

```

In[ ]:= FKB[pd_PD] := Module[{p, t1, t2, t3, t4, B, d, KB, todo},
  SetAttributes[p, Orderless];
  KB = 1;
  todo = pd;
  While[Length[todo] > 0,
    x = First[todo];
    todo = DeleteCases[todo, x];
    t1 = KB (x /. X[i_, j_, k_, l_] → A * p[i, j] * p[k, l] + B * p[i, l] * p[j, k]);
    t2 = Expand[t1];
    t3 = t2 /. {p[i_, j_] p[j_, k_] → p[i, k]};
    t4 = t3 /. {p[i_, i_] → d, p[i_, j_]^2 → d};
    KB = Expand[t4 /. {B → 1/A, d → -A^2 - 1/A^2}];
  ];
  KB
]

```

```

In[ ]:= FKB[Knot[8, 17] /. Knots]

```

```

Out[ ]:= 
$$-\frac{1}{A^{18}} + \frac{2}{A^{14}} - \frac{2}{A^{10}} + \frac{1}{A^6} - \frac{1}{A^2} - A^2 + A^6 - 2A^{10} + 2A^{14} - A^{18}$$


```

```

In[ ]:= Timing[Table[FKB[Knot[10, k] /. Knots], {k, 165}]];

```

```

Out[ ]:= {5.79688, Null}

```

```

In[ ]:= Table[CatalanNumber[k], {k, 1, 20}]

```

```

Out[ ]:= {1, 2, 5, 14, 42, 132, 429, 1430, 4862, 16796, 58786, 208012, 742900,
  2674440, 9694845, 35357670, 129644790, 477638700, 1767263190, 6564120420}

```

```

In[ ]:= {1, 2, 3} ∪ {3, 4}

```

```

Out[ ]:= {1, 2, 3, 4}

```

```

In[ ]:= {1, 2, 3} ∩ {3, 4}

```

```

Out[ ]:= {3}

```

```

In[ ]:= Complement[{1, 2, 3, 4}, {3}]

```

```

Out[ ]:= {1, 2, 4}

```

```

In[ ]:= x

```

```

Out[ ]:= X[12, 20, 13, 19]

```

```

In[ ]:= List@@x

```

```

Out[ ]:= {12, 20, 13, 19}

```

```

In[ ]:= front = {1, 2, 3, 6, 9, 10, 11}

```

```

Out[ ]:= {1, 2, 3, 6, 9, 10, 11}

```

```

In[ ]:= todo = List@@PD[X[1, 2, 5, 12], X[1, 2, 3, 13]]

```

```

Out[ ]:= {X[1, 2, 5, 12], X[1, 2, 3, 13]}

```

```
In[ ]:= v[x_X] := Length[front ∩ (List @@ x)]
```

```
In[ ]:= v /@ todo
```

```
Out[ ]:= {2, 3}
```

```
In[ ]:= MaximalBy[todo, v]
```

```
Out[ ]:= {X[1, 2, 3, 13]}
```

```
In[ ]:= pd
```

```
Out[ ]:= PD[X[1, 15, 2, 14], X[29, 2, 30, 3], X[40, 4, 41, 3], X[4, 44, 5, 43], X[5, 26, 6, 27],
X[95, 7, 96, 6], X[7, 1, 8, 96], X[8, 14, 9, 13], X[28, 9, 29, 10], X[41, 11, 42, 10],
X[11, 43, 12, 42], X[12, 27, 13, 28], X[15, 31, 16, 30], X[61, 16, 62, 17], X[72, 17, 73, 18],
X[83, 18, 84, 19], X[34, 20, 35, 19], X[20, 89, 21, 90], X[92, 21, 93, 22], X[22, 79, 23, 80],
X[23, 68, 24, 69], X[24, 57, 25, 58], X[56, 25, 57, 26], X[31, 63, 32, 62], X[32, 74, 33, 73],
X[33, 85, 34, 84], X[35, 50, 36, 51], X[81, 37, 82, 36], X[70, 38, 71, 37], X[59, 39, 60, 38],
X[54, 39, 55, 40], X[55, 45, 56, 44], X[45, 59, 46, 58], X[46, 70, 47, 69],
X[47, 81, 48, 80], X[91, 49, 92, 48], X[49, 91, 50, 90], X[82, 52, 83, 51], X[71, 53, 72, 52],
X[60, 54, 61, 53], X[74, 63, 75, 64], X[85, 64, 86, 65], X[65, 76, 66, 77],
X[66, 87, 67, 88], X[94, 67, 95, 68], X[86, 75, 87, 76], X[77, 88, 78, 89], X[93, 78, 94, 79]]
```

```
In[ ]:= RandomChoice[List @@ pd]
```

```
Out[ ]:= X[46, 70, 47, 69]
```

```
In[ ]:= EFKB[pd_PD] := Module[{p, t1, t2, t3, t4, B, d, KB, todo, front, x, v},
  SetAttributes[p, Orderless];
  KB = 1;
  todo = List @@ pd;
  front = {};
  v[x_X] := Length[front ∩ (List @@ x)];
  While[Length[todo] > 0,
    x = RandomChoice[MaximalBy[todo, v]];
    todo = DeleteCases[todo, x];
    t1 = KB (x /. X[i_, j_, k_, l_] → A * p[i, j] * p[k, l] + B * p[i, l] * p[j, k]);
    t2 = Expand[t1];
    t3 = t2 /. {p[i_, j_] p[j_, k_] → p[i, k]};
    t4 = t3 /. {p[i_, i_] → d, p[i_, j_] ^ 2 → d};
    KB = Expand[t4 /. {B → 1/A, d → -A^2 - 1/A^2}];
    front = Complement[front ∪ (List @@ x), front ∩ (List @@ x)];
  ];
  KB
]
```

```
In[ ]:= Timing[Table[EFKB[Knot[10, k] /. Knots], {k, 165}];]
```

```
Out[ ]:= {1.84375, Null}
```

```
In[ ]:= Table[EFKB[Knot[10, k] /. Knots] == FKB[Knot[10, k] /. Knots], {k, 165}]
```

```
Out[ ]:= {True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True,
True, True, True, True, True, True, True, True, True, True, True, True, True, True}
```

```
In[ ]:= Timing[EFKB[GST48 /. Knots]]
```

```
Out[ ]:= {2.92188,  $\frac{1}{A^{60}} - \frac{2}{A^{56}} + \frac{1}{A^{52}} + \frac{1}{A^{48}} - \frac{2}{A^{44}} - \frac{1}{A^{24}} + \frac{2}{A^{20}} + \frac{1}{A^{16}} - \frac{2}{A^{12}} + \frac{4}{A^8} - \frac{2}{A^4} - 2A^8 - 2A^{16} + A^{20} - A^{28} + A^{36}$ }
```

Blackboard at

end:

