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SetDirectory["C:\\drorbn\\AcademicPensieve\\2011-08\\w-Computations"];
<< "Playground Program.m"

InfoPrint[s_String] := Print[s <> " is ", ToExpression[s]];

Vp[d = 0] = 0; eqns = {};
While[d < 7,
  Print["At d=", ++d];
  Vp[d] = PCollect[Vp[d - 1] + Sum[
    c[d, 2 k] h^d * h[1]^k h[2]^(d - 1 - k) * ar[1, 2] +
    c[d, 2 k + 1] h^d * h[1]^k h[2]^(d - 1 - k) * ar[2, 1], {k, 0, d - 1}
  ]];
  Print["Vp[d] is ", Vp[d]];
  Print[eq1 = PCollect[ToDegree[d + 1, R4Eqn[Vp[d]]]]];
  eqns = Union[Flatten[{eqns,
    CoefficientList[
      eq1 /. {h[1] -> x, h[2] -> y, h -> 1, ar[i_, j_] -> ar^(10 i + j)}, {x, y, ar}
    }]];
  eq2 = PCollect[ToDegree[d, TwistEqn[Vp[d]]]];
  InfoPrint["eq2"];
  eqns = Union[Flatten[{eqns,
    CoefficientList[
      eq2 /. {h[1] -> x, h[2] -> y, h -> 1, ar[i_, j_] -> ar^(10 i + j)}, {x, y, ar}
    }]];
  If[False, eqns = Union[eqns, {c[d, 2 d - 2], c[d, 1]}]];
  vars = Flatten[Table[c[k, j], {k, d}, {j, 0, 2 k - 1}]];
  InfoPrint["{eqns,vars}"];
  sol = Solve[({# == 0} & /@ eqns), vars];
  Print["sol is ", sol];
  sol = First[sol];
  Vp[d] = (Vp[d] /. sol);
  Print["v is ", Vp[d]];
  Print["{R4Eqn[d+1], TwistEqn[d]}=", {
    ToDegree[d + 1, R4Eqn[Vp[d]]],
    ToDegree[d, TwistEqn[Vp[d]]]
  }];
]

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At d=1

Vp[d] is $h \ar[1, 2] c[1, 0] + h \ar[2, 1] c[1, 1]$

$$\ar[2, 3] \left(-\frac{1}{2} h^2 h[1] + h^2 c[1, 0] h[1] - h^2 c[1, 1] h[1] \right) +$$

$$\ar[1, 3] \left(\frac{1}{2} h^2 h[2] - h^2 c[1, 0] h[2] + h^2 c[1, 1] h[2] \right)$$

$$\text{eq2 is } \ar[2, 1] \left(-\frac{h}{2} + h c[1, 0] - h c[1, 1] \right) + \ar[1, 2] \left(\frac{h}{2} - h c[1, 0] + h c[1, 1] \right)$$

$$\{\text{eqns,vars}\} \text{ is } \left\{ \left\{ 0, -\frac{1}{2} + c[1, 0] - c[1, 1], \frac{1}{2} - c[1, 0] + c[1, 1] \right\}, \{c[1, 0], c[1, 1]\} \right\}$$

Solve::svars: Equations may not give solutions for all "solve" variables. >>

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sol is {{c[1, 1] -> -1/2 + c[1, 0]}}
v is har[2, 1] (-1/2 + c[1, 0]) + har[1, 2] c[1, 0]
{R4Eqn[d+1], TwistEqn[d]}={0, 0}
At d=2
Vp[d] is ar[1, 2] (hc[1, 0] + h^2 c[2, 2] h[1] + h^2 c[2, 0] h[2]) +
  ar[2, 1] (-h/2 + hc[1, 0] + h^2 c[2, 3] h[1] + h^2 c[2, 1] h[2])
ar[2, 3] (1/12 h^3 h[1]^2 - 1/4 h^3 c[1, 0] h[1]^2 + h^3 c[2, 2] h[1]^2 - h^3 c[2, 3] h[1]^2 +
  1/24 h^3 h[1] h[2] - 1/4 h^3 c[1, 0] h[1] h[2] + h^3 c[2, 0] h[1] h[2] - h^3 c[2, 1] h[1] h[2]) +
  ar[1, 3] (-1/12 h^3 h[1] h[2] + 1/4 h^3 c[1, 0] h[1] h[2] - h^3 c[2, 2] h[1] h[2] +
  h^3 c[2, 3] h[1] h[2] - 1/24 h^3 h[2]^2 + 1/4 h^3 c[1, 0] h[2]^2 - h^3 c[2, 0] h[2]^2 + h^3 c[2, 1] h[2]^2)
eq2 is ar[2, 2] (1/8 h^2 h[1] - 1/2 h^2 c[1, 0] h[1]) +
  ar[1, 1] (-1/8 h^2 h[2] + 1/2 h^2 c[1, 0] h[2]) + ar[2, 1] (1/8 h^2 h[1] - 1/2 h^2 c[1, 0] h[1] +
  h^2 c[2, 0] h[1] - h^2 c[2, 3] h[1] - h^2 c[2, 1] h[2] + h^2 c[2, 2] h[2]) +
  ar[1, 2] (h^2 c[2, 1] h[1] - h^2 c[2, 2] h[1] - 1/8 h^2 h[2] + 1/2 h^2 c[1, 0] h[2] -
  h^2 c[2, 0] h[2] + h^2 c[2, 3] h[2])
{eqns, vars} is
{{0, 1/8 - 1/2 c[1, 0], -1/8 + 1/2 c[1, 0], -1/2 + c[1, 0] - c[1, 1], 1/2 - c[1, 0] + c[1, 1],
  1/24 - 1/4 c[1, 0] + c[2, 0] - c[2, 1], -1/24 + 1/4 c[1, 0] - c[2, 0] + c[2, 1], c[2, 1] - c[2, 2],
  -c[2, 1] + c[2, 2], 1/8 - 1/2 c[1, 0] + c[2, 0] - c[2, 3], 1/12 - 1/4 c[1, 0] + c[2, 2] - c[2, 3],
  -1/8 + 1/2 c[1, 0] - c[2, 0] + c[2, 3], -1/12 + 1/4 c[1, 0] - c[2, 2] + c[2, 3]},
{c[1, 0], c[1, 1], c[2, 0], c[2, 1], c[2, 2], c[2, 3]}}
Solve::svars: Equations may not give solutions for all "solve" variables. >>
sol is {{c[1, 0] -> 1/4, c[1, 1] -> -1/4,
  c[2, 1] -> -1/48 + c[2, 0], c[2, 2] -> -1/48 + c[2, 0], c[2, 3] -> c[2, 0]}}

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$$v \text{ is } ar[2, 1] \left(-\frac{h}{4} + h^2 c[2, 0] h[1] + h^2 \left(-\frac{1}{48} + c[2, 0] \right) h[2] \right) +$$

$$ar[1, 2] \left(\frac{h}{4} + h^2 \left(-\frac{1}{48} + c[2, 0] \right) h[1] + h^2 c[2, 0] h[2] \right)$$

$$\{R4Eqn[d+1], TwistEqn[d]\} = \{0, 0\}$$

At d=3

$$Vp[d] \text{ is } ar[1, 2] \left(\frac{h}{4} - \frac{1}{48} h^2 h[1] + h^2 c[2, 0] h[1] +$$

$$h^3 c[3, 4] h[1]^2 + h^2 c[2, 0] h[2] + h^3 c[3, 2] h[1] h[2] + h^3 c[3, 0] h[2]^2 \right) +$$

$$ar[2, 1] \left(-\frac{h}{4} + h^2 c[2, 0] h[1] + h^3 c[3, 5] h[1]^2 - \frac{1}{48} h^2 h[2] +$$

$$h^2 c[2, 0] h[2] + h^3 c[3, 3] h[1] h[2] + h^3 c[3, 1] h[2]^2 \right)$$

ar[2, 3]

$$\left(\frac{5}{384} h^4 h[1]^3 - \frac{1}{4} h^4 c[2, 0] h[1]^3 + h^4 c[3, 4] h[1]^3 - h^4 c[3, 5] h[1]^3 + \frac{5}{192} h^4 h[1]^2 h[2] - \right.$$

$$\frac{1}{2} h^4 c[2, 0] h[1]^2 h[2] + h^4 c[3, 2] h[1]^2 h[2] - h^4 c[3, 3] h[1]^2 h[2] + \frac{5}{384} h^4 h[1] h[2]^2 -$$

$$\left. \frac{1}{4} h^4 c[2, 0] h[1] h[2]^2 + h^4 c[3, 0] h[1] h[2]^2 - h^4 c[3, 1] h[1] h[2]^2 \right) + ar[1, 3]$$

$$\left(-\frac{5}{384} h^4 h[1]^2 h[2] + \frac{1}{4} h^4 c[2, 0] h[1]^2 h[2] - h^4 c[3, 4] h[1]^2 h[2] + h^4 c[3, 5] h[1]^2 h[2] - \right.$$

$$\frac{5}{192} h^4 h[1] h[2]^2 + \frac{1}{2} h^4 c[2, 0] h[1] h[2]^2 - h^4 c[3, 2] h[1] h[2]^2 + h^4 c[3, 3] h[1] h[2]^2 -$$

$$\left. \frac{5}{384} h^4 h[2]^3 + \frac{1}{4} h^4 c[2, 0] h[2]^3 - h^4 c[3, 0] h[2]^3 + h^4 c[3, 1] h[2]^3 \right)$$

$$eq2 \text{ is } ar[2, 2] \left(\frac{5}{192} h^3 h[1]^2 - \frac{1}{2} h^3 c[2, 0] h[1]^2 + \frac{5}{192} h^3 h[1] h[2] - \frac{1}{2} h^3 c[2, 0] h[1] h[2] \right) +$$

$$ar[1, 1] \left(-\frac{5}{192} h^3 h[1] h[2] + \frac{1}{2} h^3 c[2, 0] h[1] h[2] - \frac{5}{192} h^3 h[2]^2 + \frac{1}{2} h^3 c[2, 0] h[2]^2 \right) +$$

$$ar[2, 1] \left(\frac{5}{192} h^3 h[1]^2 - \frac{1}{2} h^3 c[2, 0] h[1]^2 + h^3 c[3, 0] h[1]^2 -$$

$$h^3 c[3, 5] h[1]^2 + \frac{5}{192} h^3 h[1] h[2] - \frac{1}{2} h^3 c[2, 0] h[1] h[2] +$$

$$h^3 c[3, 2] h[1] h[2] - h^3 c[3, 3] h[1] h[2] - h^3 c[3, 1] h[2]^2 + h^3 c[3, 4] h[2]^2 \right) +$$

$$ar[1, 2] \left(h^3 c[3, 1] h[1]^2 - h^3 c[3, 4] h[1]^2 - \frac{5}{192} h^3 h[1] h[2] +$$

$$\frac{1}{2} h^3 c[2, 0] h[1] h[2] - h^3 c[3, 2] h[1] h[2] + h^3 c[3, 3] h[1] h[2] -$$

$$\frac{5}{192} h^3 h[2]^2 + \frac{1}{2} h^3 c[2, 0] h[2]^2 - h^3 c[3, 0] h[2]^2 + h^3 c[3, 5] h[2]^2 \right)$$

{eqns, vars} is

$$\left\{ \left\{ 0, \frac{1}{8} - \frac{1}{2} c[1, 0], -\frac{1}{8} + \frac{1}{2} c[1, 0], -\frac{1}{2} + c[1, 0] - c[1, 1], \frac{1}{2} - c[1, 0] + c[1, 1], \right. \right.$$

$$\frac{5}{192} - \frac{1}{2} c[2, 0], -\frac{5}{192} + \frac{1}{2} c[2, 0], \frac{1}{24} - \frac{1}{4} c[1, 0] + c[2, 0] - c[2, 1],$$

$$-\frac{1}{24} + \frac{1}{4} c[1, 0] - c[2, 0] + c[2, 1], c[2, 1] - c[2, 2], -c[2, 1] + c[2, 2],$$

$$\frac{1}{8} - \frac{1}{2} c[1, 0] + c[2, 0] - c[2, 3], \frac{1}{12} - \frac{1}{4} c[1, 0] + c[2, 2] - c[2, 3],$$

$$-\frac{1}{8} + \frac{1}{2} c[1, 0] - c[2, 0] + c[2, 3], -\frac{1}{12} + \frac{1}{4} c[1, 0] - c[2, 2] + c[2, 3],$$

$$\frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 0] - c[3, 1], -\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 0] + c[3, 1],$$

$$\frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 2] - c[3, 3], -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 2] + c[3, 3], c[3, 1] - c[3, 4],$$

$$-c[3, 1] + c[3, 4], \frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 0] - c[3, 5], \frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 4] - c[3, 5],$$

$$-\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 0] + c[3, 5], -\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 4] + c[3, 5] \left. \right\},$$

$$\{c[1, 0], c[1, 1], c[2, 0], c[2, 1], c[2, 2], c[2, 3], c[3, 0],$$

$$c[3, 1], c[3, 2], c[3, 3], c[3, 4], c[3, 5]\}$$

Solve::svars: Equations may not give solutions for all "solve" variables. >>

General::stop: Further output of Solve::svars will be suppressed during this calculation. >>

$$\text{sol is } \left\{ \left\{ c[1, 0] \rightarrow \frac{1}{4}, c[1, 1] \rightarrow -\frac{1}{4}, c[2, 0] \rightarrow \frac{5}{96}, c[2, 1] \rightarrow \frac{1}{32}, c[2, 2] \rightarrow \frac{1}{32}, \right. \right.$$

$$\left. \left. c[2, 3] \rightarrow \frac{5}{96}, c[3, 1] \rightarrow c[3, 0], c[3, 3] \rightarrow c[3, 2], c[3, 4] \rightarrow c[3, 0], c[3, 5] \rightarrow c[3, 0] \right\} \right\}$$

$$\text{v is ar}[2, 1] \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] + h^3 c[3, 0] h[1]^2 + \right.$$

$$\left. \frac{1}{32} h^2 h[2] + h^3 c[3, 2] h[1] h[2] + h^3 c[3, 0] h[2]^2 \right) + \text{ar}[1, 2]$$

$$\left(\frac{h}{4} + \frac{1}{32} h^2 h[1] + h^3 c[3, 0] h[1]^2 + \frac{5}{96} h^2 h[2] + h^3 c[3, 2] h[1] h[2] + h^3 c[3, 0] h[2]^2 \right)$$

$$\{\text{R4Eqn}[d+1], \text{TwistEqn}[d]\} = \{0, 0\}$$

At d=4

Vp[d] is

$$\begin{aligned}
& \text{ar}[1, 2] \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] + h^3 c[3, 0] h[1]^2 + h^4 c[4, 6] h[1]^3 + \frac{5}{96} h^2 h[2] + h^3 c[3, 2] h[1] \right. \\
& \quad \left. h[2] + h^4 c[4, 4] h[1]^2 h[2] + h^3 c[3, 0] h[2]^2 + h^4 c[4, 2] h[1] h[2]^2 + h^4 c[4, 0] h[2]^3 \right) + \\
& \text{ar}[2, 1] \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] + h^3 c[3, 0] h[1]^2 + h^4 c[4, 7] h[1]^3 + \frac{1}{32} h^2 h[2] + h^3 c[3, 2] h[1] \right. \\
& \quad \left. h[2] + h^4 c[4, 5] h[1]^2 h[2] + h^3 c[3, 0] h[2]^2 + h^4 c[4, 3] h[1] h[2]^2 + h^4 c[4, 1] h[2]^3 \right) \\
& \text{ar}[2, 3] \left(-\frac{7 h^5 h[1]^4}{23040} - \frac{1}{4} h^5 c[3, 0] h[1]^4 + h^5 c[4, 6] h[1]^4 - h^5 c[4, 7] h[1]^4 - \frac{h^5 h[1]^3 h[2]}{7680} - \right. \\
& \quad \frac{1}{4} h^5 c[3, 0] h[1]^3 h[2] - \frac{1}{4} h^5 c[3, 2] h[1]^3 h[2] + h^5 c[4, 4] h[1]^3 h[2] - \\
& \quad h^5 c[4, 5] h[1]^3 h[2] + \frac{h^5 h[1]^2 h[2]^2}{7680} - \frac{1}{4} h^5 c[3, 0] h[1]^2 h[2]^2 - \\
& \quad \frac{1}{4} h^5 c[3, 2] h[1]^2 h[2]^2 + h^5 c[4, 2] h[1]^2 h[2]^2 - h^5 c[4, 3] h[1]^2 h[2]^2 + \\
& \quad \left. \frac{7 h^5 h[1] h[2]^3}{23040} - \frac{1}{4} h^5 c[3, 0] h[1] h[2]^3 + h^5 c[4, 0] h[1] h[2]^3 - h^5 c[4, 1] h[1] h[2]^3 \right) + \\
& \text{ar}[1, 3] \left(\frac{7 h^5 h[1]^3 h[2]}{23040} + \frac{1}{4} h^5 c[3, 0] h[1]^3 h[2] - h^5 c[4, 6] h[1]^3 h[2] + \right. \\
& \quad h^5 c[4, 7] h[1]^3 h[2] + \frac{h^5 h[1]^2 h[2]^2}{7680} + \frac{1}{4} h^5 c[3, 0] h[1]^2 h[2]^2 + \frac{1}{4} h^5 c[3, 2] h[1]^2 h[2]^2 - \\
& \quad h^5 c[4, 4] h[1]^2 h[2]^2 + h^5 c[4, 5] h[1]^2 h[2]^2 - \frac{h^5 h[1] h[2]^3}{7680} + \frac{1}{4} h^5 c[3, 0] h[1] h[2]^3 + \\
& \quad \frac{1}{4} h^5 c[3, 2] h[1] h[2]^3 - h^5 c[4, 2] h[1] h[2]^3 + h^5 c[4, 3] h[1] h[2]^3 - \\
& \quad \left. \frac{7 h^5 h[2]^4}{23040} + \frac{1}{4} h^5 c[3, 0] h[2]^4 - h^5 c[4, 0] h[2]^4 + h^5 c[4, 1] h[2]^4 \right)
\end{aligned}$$

$$\begin{aligned}
\text{eq2 is } & \text{ar}[2, 2] \left(-\frac{1}{2} h^4 c[3, 0] h[1]^3 - \frac{1}{2} h^4 c[3, 2] h[1]^2 h[2] - \frac{1}{2} h^4 c[3, 0] h[1] h[2]^2 \right) + \\
& \text{ar}[1, 1] \left(\frac{1}{2} h^4 c[3, 0] h[1]^2 h[2] + \frac{1}{2} h^4 c[3, 2] h[1] h[2]^2 + \frac{1}{2} h^4 c[3, 0] h[2]^3 \right) + \\
& \text{ar}[2, 1] \left(-\frac{1}{2} h^4 c[3, 0] h[1]^3 + h^4 c[4, 0] h[1]^3 - h^4 c[4, 7] h[1]^3 - \frac{1}{2} h^4 c[3, 2] h[1]^2 h[2] + \right. \\
& \quad \left. h^4 c[4, 2] h[1]^2 h[2] - h^4 c[4, 5] h[1]^2 h[2] - \frac{1}{2} h^4 c[3, 0] h[1] h[2]^2 - \right. \\
& \quad \left. h^4 c[4, 3] h[1] h[2]^2 + h^4 c[4, 4] h[1] h[2]^2 - h^4 c[4, 1] h[2]^3 + h^4 c[4, 6] h[2]^3 \right) + \\
& \text{ar}[1, 2] \left(h^4 c[4, 1] h[1]^3 - h^4 c[4, 6] h[1]^3 + \frac{1}{2} h^4 c[3, 0] h[1]^2 h[2] + h^4 c[4, 3] h[1]^2 h[2] - \right. \\
& \quad \left. h^4 c[4, 4] h[1]^2 h[2] + \frac{1}{2} h^4 c[3, 2] h[1] h[2]^2 - h^4 c[4, 2] h[1] h[2]^2 + \right. \\
& \quad \left. h^4 c[4, 5] h[1] h[2]^2 + \frac{1}{2} h^4 c[3, 0] h[2]^3 - h^4 c[4, 0] h[2]^3 + h^4 c[4, 7] h[2]^3 \right)
\end{aligned}$$

{eqns, vars} is

$$\left\{ \left\{ 0, \frac{1}{8} - \frac{1}{2} c[1, 0], -\frac{1}{8} + \frac{1}{2} c[1, 0], -\frac{1}{2} + c[1, 0] - c[1, 1], \frac{1}{2} - c[1, 0] + c[1, 1], \right. \right. \\
\frac{5}{192} - \frac{1}{2} c[2, 0], -\frac{5}{192} + \frac{1}{2} c[2, 0], \frac{1}{24} - \frac{1}{4} c[1, 0] + c[2, 0] - c[2, 1], \\
-\frac{1}{24} + \frac{1}{4} c[1, 0] - c[2, 0] + c[2, 1], c[2, 1] - c[2, 2], -c[2, 1] + c[2, 2], \\
\frac{1}{8} - \frac{1}{2} c[1, 0] + c[2, 0] - c[2, 3], \frac{1}{12} - \frac{1}{4} c[1, 0] + c[2, 2] - c[2, 3], \\
-\frac{1}{8} + \frac{1}{2} c[1, 0] - c[2, 0] + c[2, 3], -\frac{1}{12} + \frac{1}{4} c[1, 0] - c[2, 2] + c[2, 3], \\
-\frac{1}{2} c[3, 0], \frac{1}{2} c[3, 0], \frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 0] - c[3, 1], \\
-\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 0] + c[3, 1], -\frac{1}{2} c[3, 2], \frac{1}{2} c[3, 2], \\
\frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 2] - c[3, 3], -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 2] + c[3, 3], \\
c[3, 1] - c[3, 4], -c[3, 1] + c[3, 4], \frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 0] - c[3, 5], \\
\frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 4] - c[3, 5], -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 0] + c[3, 5], \\
-\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 4] + c[3, 5], \frac{7}{23040} - \frac{1}{4} c[3, 0] + c[4, 0] - c[4, 1], \\
-\frac{7}{23040} + \frac{1}{4} c[3, 0] - c[4, 0] + c[4, 1], \frac{1}{7680} - \frac{1}{4} c[3, 0] - \frac{1}{4} c[3, 2] + c[4, 2] - c[4, 3], \\
-\frac{1}{7680} + \frac{1}{4} c[3, 0] + \frac{1}{4} c[3, 2] - c[4, 2] + c[4, 3], \frac{1}{2} c[3, 0] + c[4, 3] - c[4, 4], \\
-\frac{1}{2} c[3, 0] - c[4, 3] + c[4, 4], -\frac{1}{2} c[3, 2] + c[4, 2] - c[4, 5], \\
-\frac{1}{7680} - \frac{1}{4} c[3, 0] - \frac{1}{4} c[3, 2] + c[4, 4] - c[4, 5], \frac{1}{2} c[3, 2] - c[4, 2] + c[4, 5], \\
\frac{1}{7680} + \frac{1}{4} c[3, 0] + \frac{1}{4} c[3, 2] - c[4, 4] + c[4, 5], c[4, 1] - c[4, 6], -c[4, 1] + c[4, 6], \\
-\frac{1}{2} c[3, 0] + c[4, 0] - c[4, 7], -\frac{7}{23040} - \frac{1}{4} c[3, 0] + c[4, 6] - c[4, 7], \\
\left. \frac{1}{2} c[3, 0] - c[4, 0] + c[4, 7], \frac{7}{23040} + \frac{1}{4} c[3, 0] - c[4, 6] + c[4, 7] \right\}, \\
\{c[1, 0], c[1, 1], c[2, 0], c[2, 1], c[2, 2], c[2, 3], c[3, 0], c[3, 1], c[3, 2], c[3, 3], \\
c[3, 4], c[3, 5], c[4, 0], c[4, 1], c[4, 2], c[4, 3], c[4, 4], c[4, 5], c[4, 6], c[4, 7]\}$$

$$\text{sol is } \left\{ \left\{ c[1, 0] \rightarrow \frac{1}{4}, c[1, 1] \rightarrow -\frac{1}{4}, c[2, 0] \rightarrow \frac{5}{96}, c[2, 1] \rightarrow \frac{1}{32}, c[2, 2] \rightarrow \frac{1}{32}, \right. \right.$$

$$c[2, 3] \rightarrow \frac{5}{96}, c[3, 0] \rightarrow 0, c[3, 1] \rightarrow 0, c[3, 2] \rightarrow 0, c[3, 3] \rightarrow 0, c[3, 4] \rightarrow 0, c[3, 5] \rightarrow 0,$$

$$c[4, 1] \rightarrow \frac{7}{23040} + c[4, 0], c[4, 3] \rightarrow \frac{1}{7680} + c[4, 2], c[4, 4] \rightarrow \frac{1}{7680} + c[4, 2],$$

$$\left. \left. c[4, 5] \rightarrow c[4, 2], c[4, 6] \rightarrow \frac{7}{23040} + c[4, 0], c[4, 7] \rightarrow c[4, 0] \right\} \right\}$$

$$\text{v is ar}[1, 2] \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] + h^4 \left(\frac{7}{23040} + c[4, 0] \right) h[1]^3 + \frac{5}{96} h^2 h[2] + \right.$$

$$h^4 \left(\frac{1}{7680} + c[4, 2] \right) h[1]^2 h[2] + h^4 c[4, 2] h[1] h[2]^2 + h^4 c[4, 0] h[2]^3 \left. \right) +$$

$$\text{ar}[2, 1] \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] + h^4 c[4, 0] h[1]^3 + \frac{1}{32} h^2 h[2] + h^4 c[4, 2] h[1]^2 h[2] + \right.$$

$$h^4 \left(\frac{1}{7680} + c[4, 2] \right) h[1] h[2]^2 + h^4 \left(\frac{7}{23040} + c[4, 0] \right) h[2]^3 \left. \right)$$

$$\{\text{R4Eqn}[d+1], \text{TwistEqn}[d]\} = \{0, 0\}$$

At d=5

$$\text{Vp}[d] \text{ is ar}[1, 2] \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] + \frac{7 h^4 h[1]^3}{23040} + h^4 c[4, 0] h[1]^3 + h^5 c[5, 8] h[1]^4 + \frac{5}{96} h^2 h[2] + \right.$$

$$\frac{h^4 h[1]^2 h[2]}{7680} + h^4 c[4, 2] h[1]^2 h[2] + h^5 c[5, 6] h[1]^3 h[2] + h^4 c[4, 2] h[1] h[2]^2 +$$

$$\left. h^5 c[5, 4] h[1]^2 h[2]^2 + h^4 c[4, 0] h[2]^3 + h^5 c[5, 2] h[1] h[2]^3 + h^5 c[5, 0] h[2]^4 \right) +$$

$$\text{ar}[2, 1] \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] + h^4 c[4, 0] h[1]^3 + h^5 c[5, 9] h[1]^4 + \frac{1}{32} h^2 h[2] + \right.$$

$$h^4 c[4, 2] h[1]^2 h[2] + h^5 c[5, 7] h[1]^3 h[2] + \frac{h^4 h[1] h[2]^2}{7680} +$$

$$h^4 c[4, 2] h[1] h[2]^2 + h^5 c[5, 5] h[1]^2 h[2]^2 + \frac{7 h^4 h[2]^3}{23040} +$$

$$\left. h^4 c[4, 0] h[2]^3 + h^5 c[5, 3] h[1] h[2]^3 + h^5 c[5, 1] h[2]^4 \right)$$

ar[2, 3]

$$\begin{aligned}
& \left(-\frac{11 h^6 h[1]^5}{61440} - \frac{1}{4} h^6 c[4, 0] h[1]^5 + h^6 c[5, 8] h[1]^5 - h^6 c[5, 9] h[1]^5 - \frac{143 h^6 h[1]^4 h[2]}{276480} - \right. \\
& \frac{1}{4} h^6 c[4, 0] h[1]^4 h[2] - \frac{1}{4} h^6 c[4, 2] h[1]^4 h[2] + h^6 c[5, 6] h[1]^4 h[2] - \\
& h^6 c[5, 7] h[1]^4 h[2] - \frac{187 h^6 h[1]^3 h[2]^2}{276480} - \frac{1}{2} h^6 c[4, 2] h[1]^3 h[2]^2 + \\
& h^6 c[5, 4] h[1]^3 h[2]^2 - h^6 c[5, 5] h[1]^3 h[2]^2 - \frac{143 h^6 h[1]^2 h[2]^3}{276480} - \\
& \frac{1}{4} h^6 c[4, 0] h[1]^2 h[2]^3 - \frac{1}{4} h^6 c[4, 2] h[1]^2 h[2]^3 + \\
& h^6 c[5, 2] h[1]^2 h[2]^3 - h^6 c[5, 3] h[1]^2 h[2]^3 - \frac{11 h^6 h[1] h[2]^4}{61440} - \\
& \left. \frac{1}{4} h^6 c[4, 0] h[1] h[2]^4 + h^6 c[5, 0] h[1] h[2]^4 - h^6 c[5, 1] h[1] h[2]^4 \right) + \\
\text{ar}[1, 3] & \left(\frac{11 h^6 h[1]^4 h[2]}{61440} + \frac{1}{4} h^6 c[4, 0] h[1]^4 h[2] - h^6 c[5, 8] h[1]^4 h[2] + \right. \\
& h^6 c[5, 9] h[1]^4 h[2] + \frac{143 h^6 h[1]^3 h[2]^2}{276480} + \frac{1}{4} h^6 c[4, 0] h[1]^3 h[2]^2 + \\
& \frac{1}{4} h^6 c[4, 2] h[1]^3 h[2]^2 - h^6 c[5, 6] h[1]^3 h[2]^2 + h^6 c[5, 7] h[1]^3 h[2]^2 + \\
& \frac{187 h^6 h[1]^2 h[2]^3}{276480} + \frac{1}{2} h^6 c[4, 2] h[1]^2 h[2]^3 - h^6 c[5, 4] h[1]^2 h[2]^3 + \\
& h^6 c[5, 5] h[1]^2 h[2]^3 + \frac{143 h^6 h[1] h[2]^4}{276480} + \frac{1}{4} h^6 c[4, 0] h[1] h[2]^4 + \\
& \frac{1}{4} h^6 c[4, 2] h[1] h[2]^4 - h^6 c[5, 2] h[1] h[2]^4 + h^6 c[5, 3] h[1] h[2]^4 + \\
& \left. \frac{11 h^6 h[2]^5}{61440} + \frac{1}{4} h^6 c[4, 0] h[2]^5 - h^6 c[5, 0] h[2]^5 + h^6 c[5, 1] h[2]^5 \right)
\end{aligned}$$

$$\begin{aligned}
\text{eq2 is ar}[2, 2] & \left(-\frac{11 h^5 h[1]^4}{30720} - \frac{1}{2} h^5 c[4, 0] h[1]^4 - \frac{187 h^5 h[1]^3 h[2]}{276480} - \frac{1}{2} h^5 c[4, 2] h[1]^3 h[2] - \right. \\
& \left. \frac{187 h^5 h[1]^2 h[2]^2}{276480} - \frac{1}{2} h^5 c[4, 2] h[1]^2 h[2]^2 - \frac{11 h^5 h[1] h[2]^3}{30720} - \frac{1}{2} h^5 c[4, 0] h[1] h[2]^3 \right) + \\
\text{ar}[1, 1] & \left(\frac{11 h^5 h[1]^3 h[2]}{30720} + \frac{1}{2} h^5 c[4, 0] h[1]^3 h[2] + \frac{187 h^5 h[1]^2 h[2]^2}{276480} + \frac{1}{2} h^5 c[4, 2] h[1]^2 h[2]^2 \right. \\
& \left. h[2]^2 + \frac{187 h^5 h[1] h[2]^3}{276480} + \frac{1}{2} h^5 c[4, 2] h[1] h[2]^3 + \frac{11 h^5 h[2]^4}{30720} + \frac{1}{2} h^5 c[4, 0] h[2]^4 \right) + \\
\text{ar}[2, 1] & \left(-\frac{11 h^5 h[1]^4}{30720} - \frac{1}{2} h^5 c[4, 0] h[1]^4 + h^5 c[5, 0] h[1]^4 - h^5 c[5, 9] h[1]^4 - \right. \\
& \frac{187 h^5 h[1]^3 h[2]}{276480} - \frac{1}{2} h^5 c[4, 2] h[1]^3 h[2] + h^5 c[5, 2] h[1]^3 h[2] - h^5 c[5, 7] h[1]^3 h[2] - \\
& \frac{187 h^5 h[1]^2 h[2]^2}{276480} - \frac{1}{2} h^5 c[4, 2] h[1]^2 h[2]^2 + h^5 c[5, 4] h[1]^2 h[2]^2 - \\
& h^5 c[5, 5] h[1]^2 h[2]^2 - \frac{11 h^5 h[1] h[2]^3}{30720} - \frac{1}{2} h^5 c[4, 0] h[1] h[2]^3 - \\
& \left. h^5 c[5, 3] h[1] h[2]^3 + h^5 c[5, 6] h[1] h[2]^3 - h^5 c[5, 1] h[2]^4 + h^5 c[5, 8] h[2]^4 \right) + \\
\text{ar}[1, 2] & \left(h^5 c[5, 1] h[1]^4 - h^5 c[5, 8] h[1]^4 + \frac{11 h^5 h[1]^3 h[2]}{30720} + \frac{1}{2} h^5 c[4, 0] h[1]^3 h[2] + \right. \\
& h^5 c[5, 3] h[1]^3 h[2] - h^5 c[5, 6] h[1]^3 h[2] + \frac{187 h^5 h[1]^2 h[2]^2}{276480} + \\
& \frac{1}{2} h^5 c[4, 2] h[1]^2 h[2]^2 - h^5 c[5, 4] h[1]^2 h[2]^2 + h^5 c[5, 5] h[1]^2 h[2]^2 + \\
& \frac{187 h^5 h[1] h[2]^3}{276480} + \frac{1}{2} h^5 c[4, 2] h[1] h[2]^3 - h^5 c[5, 2] h[1] h[2]^3 + h^5 c[5, 7] h[1] h[2]^3 + \\
& \left. \frac{11 h^5 h[2]^4}{30720} + \frac{1}{2} h^5 c[4, 0] h[2]^4 - h^5 c[5, 0] h[2]^4 + h^5 c[5, 9] h[2]^4 \right)
\end{aligned}$$

{eqns, vars} is

$$\begin{aligned}
& \left\{ \left\{ 0, \frac{1}{8} - \frac{1}{2} c[1, 0], -\frac{1}{8} + \frac{1}{2} c[1, 0], -\frac{1}{2} + c[1, 0] - c[1, 1], \frac{1}{2} - c[1, 0] + c[1, 1], \right. \right. \\
& \frac{5}{192} - \frac{1}{2} c[2, 0], -\frac{5}{192} + \frac{1}{2} c[2, 0], \frac{1}{24} - \frac{1}{4} c[1, 0] + c[2, 0] - c[2, 1], \\
& -\frac{1}{24} + \frac{1}{4} c[1, 0] - c[2, 0] + c[2, 1], c[2, 1] - c[2, 2], -c[2, 1] + c[2, 2], \\
& \frac{1}{8} - \frac{1}{2} c[1, 0] + c[2, 0] - c[2, 3], \frac{1}{12} - \frac{1}{4} c[1, 0] + c[2, 2] - c[2, 3], \\
& -\frac{1}{8} + \frac{1}{2} c[1, 0] - c[2, 0] + c[2, 3], -\frac{1}{12} + \frac{1}{4} c[1, 0] - c[2, 2] + c[2, 3], -\frac{1}{2} c[3, 0], \\
& \frac{1}{2} c[3, 0], \frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 0] - c[3, 1], -\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 0] + c[3, 1], \\
& \left. -\frac{1}{2} c[3, 2], \frac{1}{2} c[3, 2], \frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 2] - c[3, 3], \right.
\end{aligned}$$

$$\begin{aligned}
& -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 2] + c[3, 3], c[3, 1] - c[3, 4], -c[3, 1] + c[3, 4], \\
& \frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 0] - c[3, 5], \frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 4] - c[3, 5], \\
& -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 0] + c[3, 5], -\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 4] + c[3, 5], \\
& -\frac{11}{30720} - \frac{1}{2} c[4, 0], \frac{11}{30720} + \frac{1}{2} c[4, 0], \frac{7}{23040} - \frac{1}{4} c[3, 0] + c[4, 0] - c[4, 1], \\
& -\frac{7}{23040} + \frac{1}{4} c[3, 0] - c[4, 0] + c[4, 1], -\frac{187}{276480} - \frac{1}{2} c[4, 2], \\
& \frac{187}{276480} + \frac{1}{2} c[4, 2], \frac{1}{7680} - \frac{1}{4} c[3, 0] - \frac{1}{4} c[3, 2] + c[4, 2] - c[4, 3], \\
& -\frac{1}{7680} + \frac{1}{4} c[3, 0] + \frac{1}{4} c[3, 2] - c[4, 2] + c[4, 3], \frac{1}{2} c[3, 0] + c[4, 3] - c[4, 4], \\
& -\frac{1}{2} c[3, 0] - c[4, 3] + c[4, 4], -\frac{1}{2} c[3, 2] + c[4, 2] - c[4, 5], \\
& -\frac{1}{7680} - \frac{1}{4} c[3, 0] - \frac{1}{4} c[3, 2] + c[4, 4] - c[4, 5], \frac{1}{2} c[3, 2] - c[4, 2] + c[4, 5], \\
& \frac{1}{7680} + \frac{1}{4} c[3, 0] + \frac{1}{4} c[3, 2] - c[4, 4] + c[4, 5], c[4, 1] - c[4, 6], -c[4, 1] + c[4, 6], \\
& -\frac{1}{2} c[3, 0] + c[4, 0] - c[4, 7], -\frac{7}{23040} - \frac{1}{4} c[3, 0] + c[4, 6] - c[4, 7], \\
& \frac{1}{2} c[3, 0] - c[4, 0] + c[4, 7], \frac{7}{23040} + \frac{1}{4} c[3, 0] - c[4, 6] + c[4, 7], \\
& -\frac{11}{61440} - \frac{1}{4} c[4, 0] + c[5, 0] - c[5, 1], \frac{11}{61440} + \frac{1}{4} c[4, 0] - c[5, 0] + c[5, 1], \\
& -\frac{143}{276480} - \frac{1}{4} c[4, 0] - \frac{1}{4} c[4, 2] + c[5, 2] - c[5, 3], \\
& \frac{143}{276480} + \frac{1}{4} c[4, 0] + \frac{1}{4} c[4, 2] - c[5, 2] + c[5, 3], -\frac{187}{276480} - \frac{1}{2} c[4, 2] + c[5, 4] - c[5, 5], \\
& \frac{187}{276480} + \frac{1}{2} c[4, 2] - c[5, 4] + c[5, 5], \frac{11}{30720} + \frac{1}{2} c[4, 0] + c[5, 3] - c[5, 6], \\
& -\frac{11}{30720} - \frac{1}{2} c[4, 0] - c[5, 3] + c[5, 6], -\frac{187}{276480} - \frac{1}{2} c[4, 2] + c[5, 2] - c[5, 7], \\
& -\frac{143}{276480} - \frac{1}{4} c[4, 0] - \frac{1}{4} c[4, 2] + c[5, 6] - c[5, 7], \frac{187}{276480} + \frac{1}{2} c[4, 2] - c[5, 2] + c[5, 7], \\
& \frac{143}{276480} + \frac{1}{4} c[4, 0] + \frac{1}{4} c[4, 2] - c[5, 6] + c[5, 7], c[5, 1] - c[5, 8], -c[5, 1] + c[5, 8], \\
& -\frac{11}{30720} - \frac{1}{2} c[4, 0] + c[5, 0] - c[5, 9], -\frac{11}{61440} - \frac{1}{4} c[4, 0] + c[5, 8] - c[5, 9], \\
& \frac{11}{30720} + \frac{1}{2} c[4, 0] - c[5, 0] + c[5, 9], \frac{11}{61440} + \frac{1}{4} c[4, 0] - c[5, 8] + c[5, 9] \}, \\
& \{c[1, 0], c[1, 1], c[2, 0], c[2, 1], c[2, 2], c[2, 3], c[3, 0], c[3, 1], c[3, 2], c[3, 3], \\
& c[3, 4], c[3, 5], c[4, 0], c[4, 1], c[4, 2], c[4, 3], c[4, 4], c[4, 5], c[4, 6], c[4, 7], \\
& c[5, 0], c[5, 1], c[5, 2], c[5, 3], c[5, 4], c[5, 5], c[5, 6], c[5, 7], c[5, 8], c[5, 9]\}
\end{aligned}$$

$$\text{sol is } \left\{ \left\{ c[1, 0] \rightarrow \frac{1}{4}, c[1, 1] \rightarrow -\frac{1}{4}, c[2, 0] \rightarrow \frac{5}{96}, c[2, 1] \rightarrow \frac{1}{32}, c[2, 2] \rightarrow \frac{1}{32}, \right. \right.$$

$$c[2, 3] \rightarrow \frac{5}{96}, c[3, 0] \rightarrow 0, c[3, 1] \rightarrow 0, c[3, 2] \rightarrow 0, c[3, 3] \rightarrow 0, c[3, 4] \rightarrow 0,$$

$$c[3, 5] \rightarrow 0, c[4, 0] \rightarrow -\frac{11}{15360}, c[4, 1] \rightarrow -\frac{19}{46080}, c[4, 2] \rightarrow -\frac{187}{138240},$$

$$c[4, 3] \rightarrow -\frac{169}{138240}, c[4, 4] \rightarrow -\frac{169}{138240}, c[4, 5] \rightarrow -\frac{187}{138240}, c[4, 6] \rightarrow -\frac{19}{46080},$$

$$c[4, 7] \rightarrow -\frac{11}{15360}, c[5, 1] \rightarrow c[5, 0], c[5, 3] \rightarrow c[5, 2], c[5, 5] \rightarrow c[5, 4],$$

$$\left. \left. c[5, 6] \rightarrow c[5, 2], c[5, 7] \rightarrow c[5, 2], c[5, 8] \rightarrow c[5, 0], c[5, 9] \rightarrow c[5, 0] \right\} \right\}$$

$$\text{v is ar}[1, 2] \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] - \frac{19 h^4 h[1]^3}{46080} + h^5 c[5, 0] h[1]^4 + \right.$$

$$\frac{5}{96} h^2 h[2] - \frac{169 h^4 h[1]^2 h[2]}{138240} + h^5 c[5, 2] h[1]^3 h[2] - \frac{187 h^4 h[1] h[2]^2}{138240} +$$

$$\left. h^5 c[5, 4] h[1]^2 h[2]^2 - \frac{11 h^4 h[2]^3}{15360} + h^5 c[5, 2] h[1] h[2]^3 + h^5 c[5, 0] h[2]^4 \right) +$$

$$\text{ar}[2, 1] \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] - \frac{11 h^4 h[1]^3}{15360} + h^5 c[5, 0] h[1]^4 + \frac{1}{32} h^2 h[2] - \right.$$

$$\frac{187 h^4 h[1]^2 h[2]}{138240} + h^5 c[5, 2] h[1]^3 h[2] - \frac{169 h^4 h[1] h[2]^2}{138240} +$$

$$\left. h^5 c[5, 4] h[1]^2 h[2]^2 - \frac{19 h^4 h[2]^3}{46080} + h^5 c[5, 2] h[1] h[2]^3 + h^5 c[5, 0] h[2]^4 \right)$$

$$\{\text{R4Eqn}[d+1], \text{TwistEqn}[d]\} = \{0, 0\}$$

At d=6

Vp[d] is

$$\text{ar}[1, 2] \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] - \frac{19 h^4 h[1]^3}{46080} + h^5 c[5, 0] h[1]^4 + h^6 c[6, 10] h[1]^5 + \frac{5}{96} h^2 h[2] - \right.$$

$$\frac{169 h^4 h[1]^2 h[2]}{138240} + h^5 c[5, 2] h[1]^3 h[2] + h^6 c[6, 8] h[1]^4 h[2] - \frac{187 h^4 h[1] h[2]^2}{138240} +$$

$$h^5 c[5, 4] h[1]^2 h[2]^2 + h^6 c[6, 6] h[1]^3 h[2]^2 - \frac{11 h^4 h[2]^3}{15360} + h^5 c[5, 2] h[1] h[2]^3 +$$

$$\left. h^6 c[6, 4] h[1]^2 h[2]^3 + h^5 c[5, 0] h[2]^4 + h^6 c[6, 2] h[1] h[2]^4 + h^6 c[6, 0] h[2]^5 \right) +$$

$$\text{ar}[2, 1] \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] - \frac{11 h^4 h[1]^3}{15360} + h^5 c[5, 0] h[1]^4 + h^6 c[6, 11] h[1]^5 + \frac{1}{32} h^2 h[2] - \right.$$

$$\frac{187 h^4 h[1]^2 h[2]}{138240} + h^5 c[5, 2] h[1]^3 h[2] + h^6 c[6, 9] h[1]^4 h[2] - \frac{169 h^4 h[1] h[2]^2}{138240} +$$

$$h^5 c[5, 4] h[1]^2 h[2]^2 + h^6 c[6, 7] h[1]^3 h[2]^2 - \frac{19 h^4 h[2]^3}{46080} + h^5 c[5, 2] h[1] h[2]^3 +$$

$$\left. h^6 c[6, 5] h[1]^2 h[2]^3 + h^5 c[5, 0] h[2]^4 + h^6 c[6, 3] h[1] h[2]^4 + h^6 c[6, 1] h[2]^5 \right)$$

ar[2, 3]

$$\begin{aligned}
& \left(\frac{5 h^7 h[1]^6}{1548288} - \frac{1}{4} h^7 c[5, 0] h[1]^6 + h^7 c[6, 10] h[1]^6 - h^7 c[6, 11] h[1]^6 + \frac{37 h^7 h[1]^5 h[2]}{23224320} - \right. \\
& \frac{1}{4} h^7 c[5, 0] h[1]^5 h[2] - \frac{1}{4} h^7 c[5, 2] h[1]^5 h[2] + h^7 c[6, 8] h[1]^5 h[2] - h^7 c[6, 9] \\
& h[1]^5 h[2] + \frac{13 h^7 h[1]^4 h[2]^2}{11612160} - \frac{1}{4} h^7 c[5, 2] h[1]^4 h[2]^2 - \frac{1}{4} h^7 c[5, 4] h[1]^4 h[2]^2 + \\
& h^7 c[6, 6] h[1]^4 h[2]^2 - h^7 c[6, 7] h[1]^4 h[2]^2 - \frac{13 h^7 h[1]^3 h[2]^3}{11612160} - \\
& \frac{1}{4} h^7 c[5, 2] h[1]^3 h[2]^3 - \frac{1}{4} h^7 c[5, 4] h[1]^3 h[2]^3 + h^7 c[6, 4] h[1]^3 h[2]^3 - \\
& h^7 c[6, 5] h[1]^3 h[2]^3 - \frac{37 h^7 h[1]^2 h[2]^4}{23224320} - \frac{1}{4} h^7 c[5, 0] h[1]^2 h[2]^4 - \\
& \frac{1}{4} h^7 c[5, 2] h[1]^2 h[2]^4 + h^7 c[6, 2] h[1]^2 h[2]^4 - h^7 c[6, 3] h[1]^2 h[2]^4 - \\
& \left. \frac{5 h^7 h[1] h[2]^5}{1548288} - \frac{1}{4} h^7 c[5, 0] h[1] h[2]^5 + h^7 c[6, 0] h[1] h[2]^5 - h^7 c[6, 1] h[1] h[2]^5 \right) +
\end{aligned}$$

$$\begin{aligned}
\text{ar}[1, 3] & \left(-\frac{5 h^7 h[1]^5 h[2]}{1548288} + \frac{1}{4} h^7 c[5, 0] h[1]^5 h[2] - h^7 c[6, 10] h[1]^5 h[2] + \right. \\
& h^7 c[6, 11] h[1]^5 h[2] - \frac{37 h^7 h[1]^4 h[2]^2}{23224320} + \frac{1}{4} h^7 c[5, 0] h[1]^4 h[2]^2 + \\
& \frac{1}{4} h^7 c[5, 2] h[1]^4 h[2]^2 - h^7 c[6, 8] h[1]^4 h[2]^2 + h^7 c[6, 9] h[1]^4 h[2]^2 - \\
& \frac{13 h^7 h[1]^3 h[2]^3}{11612160} + \frac{1}{4} h^7 c[5, 2] h[1]^3 h[2]^3 + \frac{1}{4} h^7 c[5, 4] h[1]^3 h[2]^3 - \\
& h^7 c[6, 6] h[1]^3 h[2]^3 + h^7 c[6, 7] h[1]^3 h[2]^3 + \frac{13 h^7 h[1]^2 h[2]^4}{11612160} + \\
& \frac{1}{4} h^7 c[5, 2] h[1]^2 h[2]^4 + \frac{1}{4} h^7 c[5, 4] h[1]^2 h[2]^4 - h^7 c[6, 4] h[1]^2 h[2]^4 + \\
& h^7 c[6, 5] h[1]^2 h[2]^4 + \frac{37 h^7 h[1] h[2]^5}{23224320} + \frac{1}{4} h^7 c[5, 0] h[1] h[2]^5 + \\
& \frac{1}{4} h^7 c[5, 2] h[1] h[2]^5 - h^7 c[6, 2] h[1] h[2]^5 + h^7 c[6, 3] h[1] h[2]^5 + \\
& \left. \frac{5 h^7 h[2]^6}{1548288} + \frac{1}{4} h^7 c[5, 0] h[2]^6 - h^7 c[6, 0] h[2]^6 + h^7 c[6, 1] h[2]^6 \right)
\end{aligned}$$

$$\begin{aligned}
\text{eq2 is ar}[2, 2] & \left(-\frac{1}{2} h^6 c[5, 0] h[1]^5 - \frac{1}{2} h^6 c[5, 2] h[1]^4 h[2] - \right. \\
& \left. \frac{1}{2} h^6 c[5, 4] h[1]^3 h[2]^2 - \frac{1}{2} h^6 c[5, 2] h[1]^2 h[2]^3 - \frac{1}{2} h^6 c[5, 0] h[1] h[2]^4 \right) + \\
\text{ar}[1, 1] & \left(\frac{1}{2} h^6 c[5, 0] h[1]^4 h[2] + \frac{1}{2} h^6 c[5, 2] h[1]^3 h[2]^2 + \right. \\
& \left. \frac{1}{2} h^6 c[5, 4] h[1]^2 h[2]^3 + \frac{1}{2} h^6 c[5, 2] h[1] h[2]^4 + \frac{1}{2} h^6 c[5, 0] h[2]^5 \right) + \\
\text{ar}[2, 1] & \left(-\frac{1}{2} h^6 c[5, 0] h[1]^5 + h^6 c[6, 0] h[1]^5 - h^6 c[6, 11] h[1]^5 - \frac{1}{2} h^6 c[5, 2] h[1]^4 h[2] + \right. \\
& h^6 c[6, 2] h[1]^4 h[2] - h^6 c[6, 9] h[1]^4 h[2] - \frac{1}{2} h^6 c[5, 4] h[1]^3 h[2]^2 + \\
& h^6 c[6, 4] h[1]^3 h[2]^2 - h^6 c[6, 7] h[1]^3 h[2]^2 - \frac{1}{2} h^6 c[5, 2] h[1]^2 h[2]^3 - \\
& h^6 c[6, 5] h[1]^2 h[2]^3 + h^6 c[6, 6] h[1]^2 h[2]^3 - \frac{1}{2} h^6 c[5, 0] h[1] h[2]^4 - \\
& \left. h^6 c[6, 3] h[1] h[2]^4 + h^6 c[6, 8] h[1] h[2]^4 - h^6 c[6, 1] h[2]^5 + h^6 c[6, 10] h[2]^5 \right) + \\
\text{ar}[1, 2] & \left(h^6 c[6, 1] h[1]^5 - h^6 c[6, 10] h[1]^5 + \frac{1}{2} h^6 c[5, 0] h[1]^4 h[2] + h^6 c[6, 3] h[1]^4 h[2] - \right. \\
& h^6 c[6, 8] h[1]^4 h[2] + \frac{1}{2} h^6 c[5, 2] h[1]^3 h[2]^2 + h^6 c[6, 5] h[1]^3 h[2]^2 - \\
& h^6 c[6, 6] h[1]^3 h[2]^2 + \frac{1}{2} h^6 c[5, 4] h[1]^2 h[2]^3 - h^6 c[6, 4] h[1]^2 h[2]^3 + \\
& h^6 c[6, 7] h[1]^2 h[2]^3 + \frac{1}{2} h^6 c[5, 2] h[1] h[2]^4 - h^6 c[6, 2] h[1] h[2]^4 + \\
& \left. h^6 c[6, 9] h[1] h[2]^4 + \frac{1}{2} h^6 c[5, 0] h[2]^5 - h^6 c[6, 0] h[2]^5 + h^6 c[6, 11] h[2]^5 \right)
\end{aligned}$$

{eqns, vars} is

$$\begin{aligned}
& \left\{ \left\{ 0, \frac{1}{8} - \frac{1}{2} c[1, 0], -\frac{1}{8} + \frac{1}{2} c[1, 0], -\frac{1}{2} + c[1, 0] - c[1, 1], \frac{1}{2} - c[1, 0] + c[1, 1], \right. \right. \\
& \frac{5}{192} - \frac{1}{2} c[2, 0], -\frac{5}{192} + \frac{1}{2} c[2, 0], \frac{1}{24} - \frac{1}{4} c[1, 0] + c[2, 0] - c[2, 1], \\
& -\frac{1}{24} + \frac{1}{4} c[1, 0] - c[2, 0] + c[2, 1], c[2, 1] - c[2, 2], -c[2, 1] + c[2, 2], \\
& \frac{1}{8} - \frac{1}{2} c[1, 0] + c[2, 0] - c[2, 3], \frac{1}{12} - \frac{1}{4} c[1, 0] + c[2, 2] - c[2, 3], \\
& -\frac{1}{8} + \frac{1}{2} c[1, 0] - c[2, 0] + c[2, 3], -\frac{1}{12} + \frac{1}{4} c[1, 0] - c[2, 2] + c[2, 3], -\frac{1}{2} c[3, 0], \\
& \frac{1}{2} c[3, 0], \frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 0] - c[3, 1], -\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 0] + c[3, 1], \\
& -\frac{1}{2} c[3, 2], \frac{1}{2} c[3, 2], \frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 2] - c[3, 3], \\
& \left. -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 2] + c[3, 3], c[3, 1] - c[3, 4], -c[3, 1] + c[3, 4], \right\}
\end{aligned}$$

$$\begin{aligned}
& \frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 0] - c[3, 5], \quad \frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 4] - c[3, 5], \\
& -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 0] + c[3, 5], \quad -\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 4] + c[3, 5], \\
& -\frac{11}{30720} - \frac{1}{2} c[4, 0], \quad \frac{11}{30720} + \frac{1}{2} c[4, 0], \quad \frac{7}{23040} - \frac{1}{4} c[3, 0] + c[4, 0] - c[4, 1], \\
& -\frac{7}{23040} + \frac{1}{4} c[3, 0] - c[4, 0] + c[4, 1], \quad -\frac{187}{276480} - \frac{1}{2} c[4, 2], \\
& \frac{187}{276480} + \frac{1}{2} c[4, 2], \quad \frac{1}{7680} - \frac{1}{4} c[3, 0] - \frac{1}{4} c[3, 2] + c[4, 2] - c[4, 3], \\
& -\frac{1}{7680} + \frac{1}{4} c[3, 0] + \frac{1}{4} c[3, 2] - c[4, 2] + c[4, 3], \quad \frac{1}{2} c[3, 0] + c[4, 3] - c[4, 4], \\
& -\frac{1}{2} c[3, 0] - c[4, 3] + c[4, 4], \quad -\frac{1}{2} c[3, 2] + c[4, 2] - c[4, 5], \\
& -\frac{1}{7680} - \frac{1}{4} c[3, 0] - \frac{1}{4} c[3, 2] + c[4, 4] - c[4, 5], \quad \frac{1}{2} c[3, 2] - c[4, 2] + c[4, 5], \\
& \frac{1}{7680} + \frac{1}{4} c[3, 0] + \frac{1}{4} c[3, 2] - c[4, 4] + c[4, 5], \quad c[4, 1] - c[4, 6], \quad -c[4, 1] + c[4, 6], \\
& -\frac{1}{2} c[3, 0] + c[4, 0] - c[4, 7], \quad -\frac{7}{23040} - \frac{1}{4} c[3, 0] + c[4, 6] - c[4, 7], \\
& \frac{1}{2} c[3, 0] - c[4, 0] + c[4, 7], \quad \frac{7}{23040} + \frac{1}{4} c[3, 0] - c[4, 6] + c[4, 7], \quad -\frac{1}{2} c[5, 0], \\
& \frac{1}{2} c[5, 0], \quad -\frac{11}{61440} - \frac{1}{4} c[4, 0] + c[5, 0] - c[5, 1], \quad \frac{11}{61440} + \frac{1}{4} c[4, 0] - c[5, 0] + c[5, 1], \\
& -\frac{1}{2} c[5, 2], \quad \frac{1}{2} c[5, 2], \quad -\frac{143}{276480} - \frac{1}{4} c[4, 0] - \frac{1}{4} c[4, 2] + c[5, 2] - c[5, 3], \\
& \frac{143}{276480} + \frac{1}{4} c[4, 0] + \frac{1}{4} c[4, 2] - c[5, 2] + c[5, 3], \quad -\frac{1}{2} c[5, 4], \\
& \frac{1}{2} c[5, 4], \quad -\frac{187}{276480} - \frac{1}{2} c[4, 2] + c[5, 4] - c[5, 5], \\
& \frac{187}{276480} + \frac{1}{2} c[4, 2] - c[5, 4] + c[5, 5], \quad \frac{11}{30720} + \frac{1}{2} c[4, 0] + c[5, 3] - c[5, 6], \\
& -\frac{11}{30720} - \frac{1}{2} c[4, 0] - c[5, 3] + c[5, 6], \quad -\frac{187}{276480} - \frac{1}{2} c[4, 2] + c[5, 2] - c[5, 7], \\
& -\frac{143}{276480} - \frac{1}{4} c[4, 0] - \frac{1}{4} c[4, 2] + c[5, 6] - c[5, 7], \quad \frac{187}{276480} + \frac{1}{2} c[4, 2] - c[5, 2] + c[5, 7], \\
& \frac{143}{276480} + \frac{1}{4} c[4, 0] + \frac{1}{4} c[4, 2] - c[5, 6] + c[5, 7], \quad c[5, 1] - c[5, 8], \quad -c[5, 1] + c[5, 8], \\
& -\frac{11}{30720} - \frac{1}{2} c[4, 0] + c[5, 0] - c[5, 9], \quad -\frac{11}{61440} - \frac{1}{4} c[4, 0] + c[5, 8] - c[5, 9], \\
& \frac{11}{30720} + \frac{1}{2} c[4, 0] - c[5, 0] + c[5, 9], \quad \frac{11}{61440} + \frac{1}{4} c[4, 0] - c[5, 8] + c[5, 9], \\
& -\frac{5}{1548288} - \frac{1}{4} c[5, 0] + c[6, 0] - c[6, 1], \quad \frac{5}{1548288} + \frac{1}{4} c[5, 0] - c[6, 0] + c[6, 1], \\
& -\frac{37}{23224320} - \frac{1}{4} c[5, 0] - \frac{1}{4} c[5, 2] + c[6, 2] - c[6, 3],
\end{aligned}$$

$$\begin{aligned}
& \frac{37}{23\,224\,320} + \frac{1}{4} c[5, 0] + \frac{1}{4} c[5, 2] - c[6, 2] + c[6, 3], \\
& -\frac{13}{11\,612\,160} - \frac{1}{4} c[5, 2] - \frac{1}{4} c[5, 4] + c[6, 4] - c[6, 5], \\
& \frac{13}{11\,612\,160} + \frac{1}{4} c[5, 2] + \frac{1}{4} c[5, 4] - c[6, 4] + c[6, 5], \frac{1}{2} c[5, 2] + c[6, 5] - c[6, 6], \\
& -\frac{1}{2} c[5, 2] - c[6, 5] + c[6, 6], -\frac{1}{2} c[5, 4] + c[6, 4] - c[6, 7], \\
& \frac{13}{11\,612\,160} - \frac{1}{4} c[5, 2] - \frac{1}{4} c[5, 4] + c[6, 6] - c[6, 7], \frac{1}{2} c[5, 4] - c[6, 4] + c[6, 7], \\
& -\frac{13}{11\,612\,160} + \frac{1}{4} c[5, 2] + \frac{1}{4} c[5, 4] - c[6, 6] + c[6, 7], \frac{1}{2} c[5, 0] + c[6, 3] - c[6, 8], \\
& -\frac{1}{2} c[5, 0] - c[6, 3] + c[6, 8], -\frac{1}{2} c[5, 2] + c[6, 2] - c[6, 9], \\
& \frac{37}{23\,224\,320} - \frac{1}{4} c[5, 0] - \frac{1}{4} c[5, 2] + c[6, 8] - c[6, 9], \frac{1}{2} c[5, 2] - c[6, 2] + c[6, 9], \\
& -\frac{37}{23\,224\,320} + \frac{1}{4} c[5, 0] + \frac{1}{4} c[5, 2] - c[6, 8] + c[6, 9], \\
& c[6, 1] - c[6, 10], -c[6, 1] + c[6, 10], -\frac{1}{2} c[5, 0] + c[6, 0] - c[6, 11], \\
& \frac{5}{1\,548\,288} - \frac{1}{4} c[5, 0] + c[6, 10] - c[6, 11], \frac{1}{2} c[5, 0] - c[6, 0] + c[6, 11], \\
& -\frac{5}{1\,548\,288} + \frac{1}{4} c[5, 0] - c[6, 10] + c[6, 11] \}, \\
& \{c[1, 0], c[1, 1], c[2, 0], c[2, 1], c[2, 2], c[2, 3], c[3, 0], c[3, 1], c[3, 2], \\
& c[3, 3], c[3, 4], c[3, 5], c[4, 0], c[4, 1], c[4, 2], c[4, 3], c[4, 4], \\
& c[4, 5], c[4, 6], c[4, 7], c[5, 0], c[5, 1], c[5, 2], c[5, 3], c[5, 4], \\
& c[5, 5], c[5, 6], c[5, 7], c[5, 8], c[5, 9], c[6, 0], c[6, 1], c[6, 2], c[6, 3], \\
& c[6, 4], c[6, 5], c[6, 6], c[6, 7], c[6, 8], c[6, 9], c[6, 10], c[6, 11]\} \\
\text{sol is } & \left\{ \left\{ c[1, 0] \rightarrow \frac{1}{4}, c[1, 1] \rightarrow -\frac{1}{4}, c[2, 0] \rightarrow \frac{5}{96}, c[2, 1] \rightarrow \frac{1}{32}, c[2, 2] \rightarrow \frac{1}{32}, \right. \right. \\
& c[2, 3] \rightarrow \frac{5}{96}, c[3, 0] \rightarrow 0, c[3, 1] \rightarrow 0, c[3, 2] \rightarrow 0, c[3, 3] \rightarrow 0, c[3, 4] \rightarrow 0, c[3, 5] \rightarrow 0, \\
& c[4, 0] \rightarrow -\frac{11}{15\,360}, c[4, 1] \rightarrow -\frac{19}{46\,080}, c[4, 2] \rightarrow -\frac{187}{138\,240}, c[4, 3] \rightarrow -\frac{169}{138\,240}, \\
& c[4, 4] \rightarrow -\frac{169}{138\,240}, c[4, 5] \rightarrow -\frac{187}{138\,240}, c[4, 6] \rightarrow -\frac{19}{46\,080}, c[4, 7] \rightarrow -\frac{11}{15\,360}, \\
& c[5, 0] \rightarrow 0, c[5, 1] \rightarrow 0, c[5, 2] \rightarrow 0, c[5, 3] \rightarrow 0, c[5, 4] \rightarrow 0, c[5, 5] \rightarrow 0, \\
& c[5, 6] \rightarrow 0, c[5, 7] \rightarrow 0, c[5, 8] \rightarrow 0, c[5, 9] \rightarrow 0, c[6, 1] \rightarrow -\frac{5}{1\,548\,288} + c[6, 0], \\
& c[6, 3] \rightarrow -\frac{37}{23\,224\,320} + c[6, 2], c[6, 5] \rightarrow -\frac{13}{11\,612\,160} + c[6, 4], \\
& c[6, 6] \rightarrow -\frac{13}{11\,612\,160} + c[6, 4], c[6, 7] \rightarrow c[6, 4], c[6, 8] \rightarrow -\frac{37}{23\,224\,320} + c[6, 2], \\
& \left. \left. c[6, 9] \rightarrow c[6, 2], c[6, 10] \rightarrow -\frac{5}{1\,548\,288} + c[6, 0], c[6, 11] \rightarrow c[6, 0] \right\} \right\}
\end{aligned}$$

$$\begin{aligned}
\text{v is ar}[2, 1] & \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] - \frac{11 h^4 h[1]^3}{15360} + h^6 c[6, 0] h[1]^5 + \right. \\
& \frac{1}{32} h^2 h[2] - \frac{187 h^4 h[1]^2 h[2]}{138240} + h^6 c[6, 2] h[1]^4 h[2] - \frac{169 h^4 h[1] h[2]^2}{138240} + \\
& h^6 c[6, 4] h[1]^3 h[2]^2 - \frac{19 h^4 h[2]^3}{46080} + h^6 \left(-\frac{13}{11612160} + c[6, 4] \right) h[1]^2 h[2]^3 + \\
& \left. h^6 \left(-\frac{37}{23224320} + c[6, 2] \right) h[1] h[2]^4 + h^6 \left(-\frac{5}{1548288} + c[6, 0] \right) h[2]^5 \right) + \\
\text{ar}[1, 2] & \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] - \frac{19 h^4 h[1]^3}{46080} + h^6 \left(-\frac{5}{1548288} + c[6, 0] \right) h[1]^5 + \right. \\
& \frac{5}{96} h^2 h[2] - \frac{169 h^4 h[1]^2 h[2]}{138240} + h^6 \left(-\frac{37}{23224320} + c[6, 2] \right) h[1]^4 h[2] - \\
& \frac{187 h^4 h[1] h[2]^2}{138240} + h^6 \left(-\frac{13}{11612160} + c[6, 4] \right) h[1]^3 h[2]^2 - \frac{11 h^4 h[2]^3}{15360} + \\
& \left. h^6 c[6, 4] h[1]^2 h[2]^3 + h^6 c[6, 2] h[1] h[2]^4 + h^6 c[6, 0] h[2]^5 \right)
\end{aligned}$$

$$\{\text{R4Eqn}[d+1], \text{TwistEqn}[d]\} = \{0, 0\}$$

At d=7

Vp[d] is

$$\begin{aligned}
\text{ar}[1, 2] & \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] - \frac{19 h^4 h[1]^3}{46080} - \frac{5 h^6 h[1]^5}{1548288} + h^6 c[6, 0] h[1]^5 + h^7 c[7, 12] h[1]^6 + \right. \\
& \frac{5}{96} h^2 h[2] - \frac{169 h^4 h[1]^2 h[2]}{138240} - \frac{37 h^6 h[1]^4 h[2]}{23224320} + h^6 c[6, 2] h[1]^4 h[2] + \\
& h^7 c[7, 10] h[1]^5 h[2] - \frac{187 h^4 h[1] h[2]^2}{138240} - \frac{13 h^6 h[1]^3 h[2]^2}{11612160} + \\
& h^6 c[6, 4] h[1]^3 h[2]^2 + h^7 c[7, 8] h[1]^4 h[2]^2 - \frac{11 h^4 h[2]^3}{15360} + \\
& h^6 c[6, 4] h[1]^2 h[2]^3 + h^7 c[7, 6] h[1]^3 h[2]^3 + h^6 c[6, 2] h[1] h[2]^4 + \\
& \left. h^7 c[7, 4] h[1]^2 h[2]^4 + h^6 c[6, 0] h[2]^5 + h^7 c[7, 2] h[1] h[2]^5 + h^7 c[7, 0] h[2]^6 \right) + \\
\text{ar}[2, 1] & \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] - \frac{11 h^4 h[1]^3}{15360} + h^6 c[6, 0] h[1]^5 + h^7 c[7, 13] h[1]^6 + \right. \\
& \frac{1}{32} h^2 h[2] - \frac{187 h^4 h[1]^2 h[2]}{138240} + h^6 c[6, 2] h[1]^4 h[2] + h^7 c[7, 11] h[1]^5 h[2] - \\
& \frac{169 h^4 h[1] h[2]^2}{138240} + h^6 c[6, 4] h[1]^3 h[2]^2 + h^7 c[7, 9] h[1]^4 h[2]^2 - \\
& \frac{19 h^4 h[2]^3}{46080} - \frac{13 h^6 h[1]^2 h[2]^3}{11612160} + h^6 c[6, 4] h[1]^2 h[2]^3 + h^7 c[7, 7] h[1]^3 h[2]^3 - \\
& \frac{37 h^6 h[1] h[2]^4}{23224320} + h^6 c[6, 2] h[1] h[2]^4 + h^7 c[7, 5] h[1]^2 h[2]^4 - \\
& \left. \frac{5 h^6 h[2]^5}{1548288} + h^6 c[6, 0] h[2]^5 + h^7 c[7, 3] h[1] h[2]^5 + h^7 c[7, 1] h[2]^6 \right)
\end{aligned}$$

$$\begin{aligned}
& \text{ar}[2, 3] \\
& \left(\frac{13 h^8 h[1]^7}{4644864} - \frac{1}{4} h^8 c[6, 0] h[1]^7 + h^8 c[7, 12] h[1]^7 - h^8 c[7, 13] h[1]^7 + \frac{3449 h^8 h[1]^6 h[2]}{278691840} - \right. \\
& \frac{1}{4} h^8 c[6, 0] h[1]^6 h[2] - \frac{1}{4} h^8 c[6, 2] h[1]^6 h[2] + h^8 c[7, 10] h[1]^6 h[2] - \\
& h^8 c[7, 11] h[1]^6 h[2] + \frac{7747 h^8 h[1]^5 h[2]^2}{278691840} - \frac{1}{4} h^8 c[6, 2] h[1]^5 h[2]^2 - \\
& \frac{1}{4} h^8 c[6, 4] h[1]^5 h[2]^2 + h^8 c[7, 8] h[1]^5 h[2]^2 - h^8 c[7, 9] h[1]^5 h[2]^2 + \\
& \frac{2539 h^8 h[1]^4 h[2]^3}{69672960} - \frac{1}{2} h^8 c[6, 4] h[1]^4 h[2]^3 + h^8 c[7, 6] h[1]^4 h[2]^3 - \\
& h^8 c[7, 7] h[1]^4 h[2]^3 + \frac{7747 h^8 h[1]^3 h[2]^4}{278691840} - \frac{1}{4} h^8 c[6, 2] h[1]^3 h[2]^4 - \\
& \frac{1}{4} h^8 c[6, 4] h[1]^3 h[2]^4 + h^8 c[7, 4] h[1]^3 h[2]^4 - h^8 c[7, 5] h[1]^3 h[2]^4 + \\
& \frac{3449 h^8 h[1]^2 h[2]^5}{278691840} - \frac{1}{4} h^8 c[6, 0] h[1]^2 h[2]^5 - \frac{1}{4} h^8 c[6, 2] h[1]^2 h[2]^5 + \\
& h^8 c[7, 2] h[1]^2 h[2]^5 - h^8 c[7, 3] h[1]^2 h[2]^5 + \frac{13 h^8 h[1] h[2]^6}{4644864} - \\
& \left. \frac{1}{4} h^8 c[6, 0] h[1] h[2]^6 + h^8 c[7, 0] h[1] h[2]^6 - h^8 c[7, 1] h[1] h[2]^6 \right) + \\
& \text{ar}[1, 3] \left(-\frac{13 h^8 h[1]^6 h[2]}{4644864} + \frac{1}{4} h^8 c[6, 0] h[1]^6 h[2] - h^8 c[7, 12] h[1]^6 h[2] + \right. \\
& h^8 c[7, 13] h[1]^6 h[2] - \frac{3449 h^8 h[1]^5 h[2]^2}{278691840} + \frac{1}{4} h^8 c[6, 0] h[1]^5 h[2]^2 + \\
& \frac{1}{4} h^8 c[6, 2] h[1]^5 h[2]^2 - h^8 c[7, 10] h[1]^5 h[2]^2 + h^8 c[7, 11] h[1]^5 h[2]^2 - \\
& \frac{7747 h^8 h[1]^4 h[2]^3}{278691840} + \frac{1}{4} h^8 c[6, 2] h[1]^4 h[2]^3 + \frac{1}{4} h^8 c[6, 4] h[1]^4 h[2]^3 - \\
& h^8 c[7, 8] h[1]^4 h[2]^3 + h^8 c[7, 9] h[1]^4 h[2]^3 - \frac{2539 h^8 h[1]^3 h[2]^4}{69672960} + \\
& \frac{1}{2} h^8 c[6, 4] h[1]^3 h[2]^4 - h^8 c[7, 6] h[1]^3 h[2]^4 + h^8 c[7, 7] h[1]^3 h[2]^4 - \\
& \frac{7747 h^8 h[1]^2 h[2]^5}{278691840} + \frac{1}{4} h^8 c[6, 2] h[1]^2 h[2]^5 + \frac{1}{4} h^8 c[6, 4] h[1]^2 h[2]^5 - \\
& h^8 c[7, 4] h[1]^2 h[2]^5 + h^8 c[7, 5] h[1]^2 h[2]^5 - \frac{3449 h^8 h[1] h[2]^6}{278691840} + \\
& \frac{1}{4} h^8 c[6, 0] h[1] h[2]^6 + \frac{1}{4} h^8 c[6, 2] h[1] h[2]^6 - h^8 c[7, 2] h[1] h[2]^6 + \\
& \left. h^8 c[7, 3] h[1] h[2]^6 - \frac{13 h^8 h[2]^7}{4644864} + \frac{1}{4} h^8 c[6, 0] h[2]^7 - h^8 c[7, 0] h[2]^7 + h^8 c[7, 1] h[2]^7 \right) \\
& \text{eq2 is ar}[2, 2] \left(\frac{13 h^7 h[1]^6}{2322432} - \frac{1}{2} h^7 c[6, 0] h[1]^6 + \frac{2669 h^7 h[1]^5 h[2]}{139345920} - \right.
\end{aligned}$$

$$\begin{aligned}
& \frac{1}{2} h^7 c[6, 2] h[1]^5 h[2] + \frac{2539 h^7 h[1]^4 h[2]^2}{69\,672\,960} - \frac{1}{2} h^7 c[6, 4] h[1]^4 h[2]^2 + \\
& \frac{2539 h^7 h[1]^3 h[2]^3}{69\,672\,960} - \frac{1}{2} h^7 c[6, 4] h[1]^3 h[2]^3 + \frac{2669 h^7 h[1]^2 h[2]^4}{139\,345\,920} - \\
& \left. \frac{1}{2} h^7 c[6, 2] h[1]^2 h[2]^4 + \frac{13 h^7 h[1] h[2]^5}{2\,322\,432} - \frac{1}{2} h^7 c[6, 0] h[1] h[2]^5 \right) + \\
\text{ar}[1, 1] & \left(-\frac{13 h^7 h[1]^5 h[2]}{2\,322\,432} + \frac{1}{2} h^7 c[6, 0] h[1]^5 h[2] - \frac{2669 h^7 h[1]^4 h[2]^2}{139\,345\,920} + \right. \\
& \frac{1}{2} h^7 c[6, 2] h[1]^4 h[2]^2 - \frac{2539 h^7 h[1]^3 h[2]^3}{69\,672\,960} + \frac{1}{2} h^7 c[6, 4] h[1]^3 h[2]^3 - \\
& \frac{2539 h^7 h[1]^2 h[2]^4}{69\,672\,960} + \frac{1}{2} h^7 c[6, 4] h[1]^2 h[2]^4 - \frac{2669 h^7 h[1] h[2]^5}{139\,345\,920} + \\
& \left. \frac{1}{2} h^7 c[6, 2] h[1] h[2]^5 - \frac{13 h^7 h[2]^6}{2\,322\,432} + \frac{1}{2} h^7 c[6, 0] h[2]^6 \right) + \\
\text{ar}[2, 1] & \left(\frac{13 h^7 h[1]^6}{2\,322\,432} - \frac{1}{2} h^7 c[6, 0] h[1]^6 + h^7 c[7, 0] h[1]^6 - h^7 c[7, 13] h[1]^6 + \right. \\
& \frac{2669 h^7 h[1]^5 h[2]}{139\,345\,920} - \frac{1}{2} h^7 c[6, 2] h[1]^5 h[2] + h^7 c[7, 2] h[1]^5 h[2] - \\
& h^7 c[7, 11] h[1]^5 h[2] + \frac{2539 h^7 h[1]^4 h[2]^2}{69\,672\,960} - \frac{1}{2} h^7 c[6, 4] h[1]^4 h[2]^2 + \\
& h^7 c[7, 4] h[1]^4 h[2]^2 - h^7 c[7, 9] h[1]^4 h[2]^2 + \frac{2539 h^7 h[1]^3 h[2]^3}{69\,672\,960} - \\
& \frac{1}{2} h^7 c[6, 4] h[1]^3 h[2]^3 + h^7 c[7, 6] h[1]^3 h[2]^3 - h^7 c[7, 7] h[1]^3 h[2]^3 + \\
& \frac{2669 h^7 h[1]^2 h[2]^4}{139\,345\,920} - \frac{1}{2} h^7 c[6, 2] h[1]^2 h[2]^4 - h^7 c[7, 5] h[1]^2 h[2]^4 + \\
& h^7 c[7, 8] h[1]^2 h[2]^4 + \frac{13 h^7 h[1] h[2]^5}{2\,322\,432} - \frac{1}{2} h^7 c[6, 0] h[1] h[2]^5 - \\
& \left. h^7 c[7, 3] h[1] h[2]^5 + h^7 c[7, 10] h[1] h[2]^5 - h^7 c[7, 1] h[2]^6 + h^7 c[7, 12] h[2]^6 \right) + \\
\text{ar}[1, 2] & \left(h^7 c[7, 1] h[1]^6 - h^7 c[7, 12] h[1]^6 - \frac{13 h^7 h[1]^5 h[2]}{2\,322\,432} + \frac{1}{2} h^7 c[6, 0] h[1]^5 h[2] + \right. \\
& h^7 c[7, 3] h[1]^5 h[2] - h^7 c[7, 10] h[1]^5 h[2] - \frac{2669 h^7 h[1]^4 h[2]^2}{139\,345\,920} + \\
& \frac{1}{2} h^7 c[6, 2] h[1]^4 h[2]^2 + h^7 c[7, 5] h[1]^4 h[2]^2 - h^7 c[7, 8] h[1]^4 h[2]^2 - \\
& \frac{2539 h^7 h[1]^3 h[2]^3}{69\,672\,960} + \frac{1}{2} h^7 c[6, 4] h[1]^3 h[2]^3 - h^7 c[7, 6] h[1]^3 h[2]^3 + \\
& h^7 c[7, 7] h[1]^3 h[2]^3 - \frac{2539 h^7 h[1]^2 h[2]^4}{69\,672\,960} + \frac{1}{2} h^7 c[6, 4] h[1]^2 h[2]^4 - \\
& \left. h^7 c[7, 4] h[1]^2 h[2]^4 + h^7 c[7, 9] h[1]^2 h[2]^4 - \frac{2669 h^7 h[1] h[2]^5}{139\,345\,920} + \right.
\end{aligned}$$

$$\left. \begin{aligned} & \frac{1}{2} h^7 c[6, 2] h[1] h[2]^5 - h^7 c[7, 2] h[1] h[2]^5 + h^7 c[7, 11] h[1] h[2]^5 - \\ & \frac{13 h^7 h[2]^6}{2 \cdot 322432} + \frac{1}{2} h^7 c[6, 0] h[2]^6 - h^7 c[7, 0] h[2]^6 + h^7 c[7, 13] h[2]^6 \end{aligned} \right\}$$

{eqns, vars} is

$$\left\{ \begin{aligned} & 0, \frac{1}{8} - \frac{1}{2} c[1, 0], -\frac{1}{8} + \frac{1}{2} c[1, 0], -\frac{1}{2} + c[1, 0] - c[1, 1], \frac{1}{2} - c[1, 0] + c[1, 1], \\ & \frac{5}{192} - \frac{1}{2} c[2, 0], -\frac{5}{192} + \frac{1}{2} c[2, 0], \frac{1}{24} - \frac{1}{4} c[1, 0] + c[2, 0] - c[2, 1], \\ & -\frac{1}{24} + \frac{1}{4} c[1, 0] - c[2, 0] + c[2, 1], c[2, 1] - c[2, 2], -c[2, 1] + c[2, 2], \\ & \frac{1}{8} - \frac{1}{2} c[1, 0] + c[2, 0] - c[2, 3], \frac{1}{12} - \frac{1}{4} c[1, 0] + c[2, 2] - c[2, 3], \\ & -\frac{1}{8} + \frac{1}{2} c[1, 0] - c[2, 0] + c[2, 3], -\frac{1}{12} + \frac{1}{4} c[1, 0] - c[2, 2] + c[2, 3], -\frac{1}{2} c[3, 0], \\ & \frac{1}{2} c[3, 0], \frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 0] - c[3, 1], -\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 0] + c[3, 1], \\ & -\frac{1}{2} c[3, 2], \frac{1}{2} c[3, 2], \frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 2] - c[3, 3], \\ & -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 2] + c[3, 3], c[3, 1] - c[3, 4], -c[3, 1] + c[3, 4], \\ & \frac{5}{192} - \frac{1}{2} c[2, 0] + c[3, 0] - c[3, 5], \frac{5}{384} - \frac{1}{4} c[2, 0] + c[3, 4] - c[3, 5], \\ & -\frac{5}{192} + \frac{1}{2} c[2, 0] - c[3, 0] + c[3, 5], -\frac{5}{384} + \frac{1}{4} c[2, 0] - c[3, 4] + c[3, 5], \\ & -\frac{11}{30720} - \frac{1}{2} c[4, 0], \frac{11}{30720} + \frac{1}{2} c[4, 0], \frac{7}{23040} - \frac{1}{4} c[3, 0] + c[4, 0] - c[4, 1], \\ & -\frac{7}{23040} + \frac{1}{4} c[3, 0] - c[4, 0] + c[4, 1], -\frac{187}{276480} - \frac{1}{2} c[4, 2], \\ & \frac{187}{276480} + \frac{1}{2} c[4, 2], \frac{1}{7680} - \frac{1}{4} c[3, 0] - \frac{1}{4} c[3, 2] + c[4, 2] - c[4, 3], \\ & -\frac{1}{7680} + \frac{1}{4} c[3, 0] + \frac{1}{4} c[3, 2] - c[4, 2] + c[4, 3], \frac{1}{2} c[3, 0] + c[4, 3] - c[4, 4], \\ & \frac{1}{2} c[3, 0] - c[4, 3] + c[4, 4], -\frac{1}{2} c[3, 2] + c[4, 2] - c[4, 5], \\ & -\frac{1}{7680} - \frac{1}{4} c[3, 0] - \frac{1}{4} c[3, 2] + c[4, 4] - c[4, 5], \frac{1}{2} c[3, 2] - c[4, 2] + c[4, 5], \\ & \frac{1}{7680} + \frac{1}{4} c[3, 0] + \frac{1}{4} c[3, 2] - c[4, 4] + c[4, 5], c[4, 1] - c[4, 6], -c[4, 1] + c[4, 6], \\ & -\frac{1}{2} c[3, 0] + c[4, 0] - c[4, 7], -\frac{7}{23040} - \frac{1}{4} c[3, 0] + c[4, 6] - c[4, 7], \\ & \frac{1}{2} c[3, 0] - c[4, 0] + c[4, 7], \frac{7}{23040} + \frac{1}{4} c[3, 0] - c[4, 6] + c[4, 7], -\frac{1}{2} c[5, 0], \\ & \frac{1}{2} c[5, 0], -\frac{11}{61440} - \frac{1}{4} c[4, 0] + c[5, 0] - c[5, 1], \frac{11}{61440} + \frac{1}{4} c[4, 0] - c[5, 0] + c[5, 1], \end{aligned} \right\}$$

$$\begin{aligned}
& -\frac{1}{2} c[5, 2], \frac{1}{2} c[5, 2], -\frac{143}{276480} - \frac{1}{4} c[4, 0] - \frac{1}{4} c[4, 2] + c[5, 2] - c[5, 3], \\
& \frac{143}{276480} + \frac{1}{4} c[4, 0] + \frac{1}{4} c[4, 2] - c[5, 2] + c[5, 3], -\frac{1}{2} c[5, 4], \\
& \frac{1}{2} c[5, 4], -\frac{187}{276480} - \frac{1}{2} c[4, 2] + c[5, 4] - c[5, 5], \\
& \frac{187}{276480} + \frac{1}{2} c[4, 2] - c[5, 4] + c[5, 5], \frac{11}{30720} + \frac{1}{2} c[4, 0] + c[5, 3] - c[5, 6], \\
& -\frac{11}{30720} - \frac{1}{2} c[4, 0] - c[5, 3] + c[5, 6], -\frac{187}{276480} - \frac{1}{2} c[4, 2] + c[5, 2] - c[5, 7], \\
& -\frac{143}{276480} - \frac{1}{4} c[4, 0] - \frac{1}{4} c[4, 2] + c[5, 6] - c[5, 7], \frac{187}{276480} + \frac{1}{2} c[4, 2] - c[5, 2] + c[5, 7], \\
& \frac{143}{276480} + \frac{1}{4} c[4, 0] + \frac{1}{4} c[4, 2] - c[5, 6] + c[5, 7], c[5, 1] - c[5, 8], -c[5, 1] + c[5, 8], \\
& -\frac{11}{30720} - \frac{1}{2} c[4, 0] + c[5, 0] - c[5, 9], -\frac{11}{61440} - \frac{1}{4} c[4, 0] + c[5, 8] - c[5, 9], \\
& \frac{11}{30720} + \frac{1}{2} c[4, 0] - c[5, 0] + c[5, 9], \frac{11}{61440} + \frac{1}{4} c[4, 0] - c[5, 8] + c[5, 9], \\
& \frac{13}{2322432} - \frac{1}{2} c[6, 0], -\frac{13}{2322432} + \frac{1}{2} c[6, 0], -\frac{5}{1548288} - \frac{1}{4} c[5, 0] + c[6, 0] - c[6, 1], \\
& \frac{5}{1548288} + \frac{1}{4} c[5, 0] - c[6, 0] + c[6, 1], \frac{2669}{139345920} - \frac{1}{2} c[6, 2], \\
& -\frac{2669}{139345920} + \frac{1}{2} c[6, 2], -\frac{37}{23224320} - \frac{1}{4} c[5, 0] - \frac{1}{4} c[5, 2] + c[6, 2] - c[6, 3], \\
& \frac{37}{23224320} + \frac{1}{4} c[5, 0] + \frac{1}{4} c[5, 2] - c[6, 2] + c[6, 3], \frac{2539}{69672960} - \frac{1}{2} c[6, 4], \\
& -\frac{2539}{69672960} + \frac{1}{2} c[6, 4], -\frac{13}{11612160} - \frac{1}{4} c[5, 2] - \frac{1}{4} c[5, 4] + c[6, 4] - c[6, 5], \\
& \frac{13}{11612160} + \frac{1}{4} c[5, 2] + \frac{1}{4} c[5, 4] - c[6, 4] + c[6, 5], \frac{1}{2} c[5, 2] + c[6, 5] - c[6, 6], \\
& -\frac{1}{2} c[5, 2] - c[6, 5] + c[6, 6], -\frac{1}{2} c[5, 4] + c[6, 4] - c[6, 7], \\
& \frac{13}{11612160} - \frac{1}{4} c[5, 2] - \frac{1}{4} c[5, 4] + c[6, 6] - c[6, 7], \frac{1}{2} c[5, 4] - c[6, 4] + c[6, 7], \\
& -\frac{13}{11612160} + \frac{1}{4} c[5, 2] + \frac{1}{4} c[5, 4] - c[6, 6] + c[6, 7], \frac{1}{2} c[5, 0] + c[6, 3] - c[6, 8], \\
& -\frac{1}{2} c[5, 0] - c[6, 3] + c[6, 8], -\frac{1}{2} c[5, 2] + c[6, 2] - c[6, 9], \\
& \frac{37}{23224320} - \frac{1}{4} c[5, 0] - \frac{1}{4} c[5, 2] + c[6, 8] - c[6, 9], \frac{1}{2} c[5, 2] - c[6, 2] + c[6, 9], \\
& -\frac{37}{23224320} + \frac{1}{4} c[5, 0] + \frac{1}{4} c[5, 2] - c[6, 8] + c[6, 9], \\
& c[6, 1] - c[6, 10], -c[6, 1] + c[6, 10], -\frac{1}{2} c[5, 0] + c[6, 0] - c[6, 11], \\
& \frac{5}{1548288} - \frac{1}{4} c[5, 0] + c[6, 10] - c[6, 11], \frac{1}{2} c[5, 0] - c[6, 0] + c[6, 11],
\end{aligned}$$

$$\begin{aligned}
& -\frac{5}{1548288} + \frac{1}{4} c[5, 0] - c[6, 10] + c[6, 11], \frac{13}{4644864} - \frac{1}{4} c[6, 0] + c[7, 0] - c[7, 1], \\
& -\frac{13}{4644864} + \frac{1}{4} c[6, 0] - c[7, 0] + c[7, 1], \frac{3449}{278691840} - \frac{1}{4} c[6, 0] - \frac{1}{4} c[6, 2] + \\
& c[7, 2] - c[7, 3], -\frac{3449}{278691840} + \frac{1}{4} c[6, 0] + \frac{1}{4} c[6, 2] - c[7, 2] + c[7, 3], \\
& \frac{7747}{278691840} - \frac{1}{4} c[6, 2] - \frac{1}{4} c[6, 4] + c[7, 4] - c[7, 5], -\frac{7747}{278691840} + \frac{1}{4} c[6, 2] + \\
& \frac{1}{4} c[6, 4] - c[7, 4] + c[7, 5], \frac{2539}{69672960} - \frac{1}{2} c[6, 4] + c[7, 6] - c[7, 7], \\
& -\frac{2539}{69672960} + \frac{1}{2} c[6, 4] - c[7, 6] + c[7, 7], -\frac{2669}{139345920} + \frac{1}{2} c[6, 2] + c[7, 5] - c[7, 8], \\
& \frac{2669}{139345920} - \frac{1}{2} c[6, 2] - c[7, 5] + c[7, 8], \frac{2539}{69672960} - \frac{1}{2} c[6, 4] + c[7, 4] - c[7, 9], \\
& \frac{7747}{278691840} - \frac{1}{4} c[6, 2] - \frac{1}{4} c[6, 4] + c[7, 8] - c[7, 9], \\
& -\frac{2539}{69672960} + \frac{1}{2} c[6, 4] - c[7, 4] + c[7, 9], -\frac{7747}{278691840} + \frac{1}{4} c[6, 2] + \\
& \frac{1}{4} c[6, 4] - c[7, 8] + c[7, 9], -\frac{13}{2322432} + \frac{1}{2} c[6, 0] + c[7, 3] - c[7, 10], \\
& \frac{13}{2322432} - \frac{1}{2} c[6, 0] - c[7, 3] + c[7, 10], \frac{2669}{139345920} - \frac{1}{2} c[6, 2] + c[7, 2] - c[7, 11], \\
& \frac{3449}{278691840} - \frac{1}{4} c[6, 0] - \frac{1}{4} c[6, 2] + c[7, 10] - c[7, 11], \\
& -\frac{2669}{139345920} + \frac{1}{2} c[6, 2] - c[7, 2] + c[7, 11], -\frac{3449}{278691840} + \frac{1}{4} c[6, 0] + \\
& \frac{1}{4} c[6, 2] - c[7, 10] + c[7, 11], c[7, 1] - c[7, 12], -c[7, 1] + c[7, 12], \\
& \frac{13}{2322432} - \frac{1}{2} c[6, 0] + c[7, 0] - c[7, 13], \frac{13}{4644864} - \frac{1}{4} c[6, 0] + c[7, 12] - c[7, 13], \\
& -\frac{13}{2322432} + \frac{1}{2} c[6, 0] - c[7, 0] + c[7, 13], -\frac{13}{4644864} + \frac{1}{4} c[6, 0] - c[7, 12] + c[7, 13] \}, \\
& \{c[1, 0], c[1, 1], c[2, 0], c[2, 1], c[2, 2], c[2, 3], c[3, 0], c[3, 1], c[3, 2], \\
& c[3, 3], c[3, 4], c[3, 5], c[4, 0], c[4, 1], c[4, 2], c[4, 3], c[4, 4], c[4, 5], c[4, 6], \\
& c[4, 7], c[5, 0], c[5, 1], c[5, 2], c[5, 3], c[5, 4], c[5, 5], c[5, 6], c[5, 7], c[5, 8], \\
& c[5, 9], c[6, 0], c[6, 1], c[6, 2], c[6, 3], c[6, 4], c[6, 5], c[6, 6], c[6, 7], \\
& c[6, 8], c[6, 9], c[6, 10], c[6, 11], c[7, 0], c[7, 1], c[7, 2], c[7, 3], c[7, 4], \\
& c[7, 5], c[7, 6], c[7, 7], c[7, 8], c[7, 9], c[7, 10], c[7, 11], c[7, 12], c[7, 13]\}
\end{aligned}$$

$$\begin{aligned}
\text{sol is } & \left\{ \left\{ c[1, 0] \rightarrow \frac{1}{4}, c[1, 1] \rightarrow -\frac{1}{4}, c[2, 0] \rightarrow \frac{5}{96}, c[2, 1] \rightarrow \frac{1}{32}, c[2, 2] \rightarrow \frac{1}{32}, \right. \right. \\
& c[2, 3] \rightarrow \frac{5}{96}, c[3, 0] \rightarrow 0, c[3, 1] \rightarrow 0, c[3, 2] \rightarrow 0, c[3, 3] \rightarrow 0, c[3, 4] \rightarrow 0, c[3, 5] \rightarrow 0, \\
& c[4, 0] \rightarrow -\frac{11}{15360}, c[4, 1] \rightarrow -\frac{19}{46080}, c[4, 2] \rightarrow -\frac{187}{138240}, c[4, 3] \rightarrow -\frac{169}{138240}, \\
& c[4, 4] \rightarrow -\frac{169}{138240}, c[4, 5] \rightarrow -\frac{187}{138240}, c[4, 6] \rightarrow -\frac{19}{46080}, c[4, 7] \rightarrow -\frac{11}{15360}, \\
& c[5, 0] \rightarrow 0, c[5, 1] \rightarrow 0, c[5, 2] \rightarrow 0, c[5, 3] \rightarrow 0, c[5, 4] \rightarrow 0, c[5, 5] \rightarrow 0, c[5, 6] \rightarrow 0, \\
& c[5, 7] \rightarrow 0, c[5, 8] \rightarrow 0, c[5, 9] \rightarrow 0, c[6, 0] \rightarrow \frac{13}{1161216}, c[6, 1] \rightarrow \frac{37}{4644864}, \\
& c[6, 2] \rightarrow \frac{2669}{69672960}, c[6, 3] \rightarrow \frac{1279}{34836480}, c[6, 4] \rightarrow \frac{2539}{34836480}, c[6, 5] \rightarrow \frac{125}{1741824}, \\
& c[6, 6] \rightarrow \frac{125}{1741824}, c[6, 7] \rightarrow \frac{2539}{34836480}, c[6, 8] \rightarrow \frac{1279}{34836480}, c[6, 9] \rightarrow \frac{2669}{69672960}, \\
& c[6, 10] \rightarrow \frac{37}{4644864}, c[6, 11] \rightarrow \frac{13}{1161216}, c[7, 1] \rightarrow c[7, 0], c[7, 3] \rightarrow c[7, 2], \\
& c[7, 5] \rightarrow c[7, 4], c[7, 7] \rightarrow c[7, 6], c[7, 8] \rightarrow c[7, 4], c[7, 9] \rightarrow c[7, 4], \\
& \left. \left. c[7, 10] \rightarrow c[7, 2], c[7, 11] \rightarrow c[7, 2], c[7, 12] \rightarrow c[7, 0], c[7, 13] \rightarrow c[7, 0] \right\} \right\}
\end{aligned}$$

$$\begin{aligned}
\text{v is ar}[2, 1] & \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] - \frac{11 h^4 h[1]^3}{15360} + \frac{13 h^6 h[1]^5}{1161216} + h^7 c[7, 0] h[1]^6 + \right. \\
& \frac{1}{32} h^2 h[2] - \frac{187 h^4 h[1]^2 h[2]}{138240} + \frac{2669 h^6 h[1]^4 h[2]}{69672960} + h^7 c[7, 2] h[1]^5 h[2] - \\
& \frac{169 h^4 h[1] h[2]^2}{138240} + \frac{2539 h^6 h[1]^3 h[2]^2}{34836480} + h^7 c[7, 4] h[1]^4 h[2]^2 - \\
& \frac{19 h^4 h[2]^3}{46080} + \frac{125 h^6 h[1]^2 h[2]^3}{1741824} + h^7 c[7, 6] h[1]^3 h[2]^3 + \frac{1279 h^6 h[1] h[2]^4}{34836480} + \\
& \left. h^7 c[7, 4] h[1]^2 h[2]^4 + \frac{37 h^6 h[2]^5}{4644864} + h^7 c[7, 2] h[1] h[2]^5 + h^7 c[7, 0] h[2]^6 \right) + \\
\text{ar}[1, 2] & \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] - \frac{19 h^4 h[1]^3}{46080} + \frac{37 h^6 h[1]^5}{4644864} + h^7 c[7, 0] h[1]^6 + \right. \\
& \frac{5}{96} h^2 h[2] - \frac{169 h^4 h[1]^2 h[2]}{138240} + \frac{1279 h^6 h[1]^4 h[2]}{34836480} + h^7 c[7, 2] h[1]^5 h[2] - \\
& \frac{187 h^4 h[1] h[2]^2}{138240} + \frac{125 h^6 h[1]^3 h[2]^2}{1741824} + h^7 c[7, 4] h[1]^4 h[2]^2 - \frac{11 h^4 h[2]^3}{15360} + \\
& \frac{2539 h^6 h[1]^2 h[2]^3}{34836480} + h^7 c[7, 6] h[1]^3 h[2]^3 + \frac{2669 h^6 h[1] h[2]^4}{69672960} + \\
& \left. h^7 c[7, 4] h[1]^2 h[2]^4 + \frac{13 h^6 h[2]^5}{1161216} + h^7 c[7, 2] h[1] h[2]^5 + h^7 c[7, 0] h[2]^6 \right)
\end{aligned}$$

$$\{\text{R4Eqn}[d+1], \text{TwistEqn}[d]\} = \{0, 0\}$$

ToDegree[6, Vp[7]]

$$\text{ar}[2, 1] \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] - \frac{11 h^4 h[1]^3}{15360} + \frac{13 h^6 h[1]^5}{1161216} + \frac{1}{32} h^2 h[2] - \frac{187 h^4 h[1]^2 h[2]}{138240} + \frac{2669 h^6 h[1]^4 h[2]}{69672960} - \frac{169 h^4 h[1] h[2]^2}{138240} + \frac{2539 h^6 h[1]^3 h[2]^2}{34836480} - \frac{19 h^4 h[2]^3}{46080} + \frac{125 h^6 h[1]^2 h[2]^3}{1741824} + \frac{1279 h^6 h[1] h[2]^4}{34836480} + \frac{37 h^6 h[2]^5}{4644864} \right) +$$

$$\text{ar}[1, 2] \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] - \frac{19 h^4 h[1]^3}{46080} + \frac{37 h^6 h[1]^5}{4644864} + \frac{5}{96} h^2 h[2] - \frac{169 h^4 h[1]^2 h[2]}{138240} - \frac{1279 h^6 h[1]^4 h[2]}{34836480} - \frac{187 h^4 h[1] h[2]^2}{138240} + \frac{125 h^6 h[1]^3 h[2]^2}{1741824} - \frac{11 h^4 h[2]^3}{15360} + \frac{2539 h^6 h[1]^2 h[2]^3}{34836480} + \frac{2669 h^6 h[1] h[2]^4}{69672960} + \frac{13 h^6 h[2]^5}{1161216} \right) +$$

$$\text{fb} = -\frac{1}{4} + h \left(\frac{x}{32} + \frac{5y}{96} \right) + \frac{h^3 (-57x^3 - 169x^2y - 187xy^2 - 99y^3)}{138240} + \frac{1}{69672960} h^5 (555x^5 + 2558x^4y + 5000x^3y^2 + 5078x^2y^3 + 2669xy^4 + 780y^5) + \frac{1}{200658124800} h^7 (-31989x^7 - 205357x^6y - 592097x^5y^2 - 964985x^4y^3 - 949967x^3y^4 - 565943x^2y^5 - 186139xy^6 - 34275y^7);$$

Vb = PCollect[

$$\begin{aligned} & (\text{fb} /. \{x \rightarrow h[2], y \rightarrow h[1]\}) h * \text{ar}[2, 1] + \\ & (1/2 + \text{fb} /. \{x \rightarrow h[1], y \rightarrow h[2]\}) h * \text{ar}[1, 2] \\ & + 0 h (\text{ar}[1, 1] + \text{ar}[2, 2]) \\ & + 1/96 h^2 (h[1] \text{ar}[2, 2] + h[2] \text{ar}[1, 1]) + 0 h^2 (h[1] \text{ar}[1, 1] + h[2] \text{ar}[2, 2]) \end{aligned}$$

ToDegree[6, Vb] // PCollect

$$\frac{1}{96} h^2 \text{ar}[2, 2] h[1] + \frac{1}{96} h^2 \text{ar}[1, 1] h[2] + \text{ar}[2, 1] \left(-\frac{h}{4} + \frac{5}{96} h^2 h[1] - \frac{11 h^4 h[1]^3}{15360} + \frac{13 h^6 h[1]^5}{1161216} + \frac{1}{32} h^2 h[2] - \frac{187 h^4 h[1]^2 h[2]}{138240} + \frac{2669 h^6 h[1]^4 h[2]}{69672960} - \frac{169 h^4 h[1] h[2]^2}{138240} + \frac{2539 h^6 h[1]^3 h[2]^2}{34836480} - \frac{19 h^4 h[2]^3}{46080} + \frac{125 h^6 h[1]^2 h[2]^3}{1741824} + \frac{1279 h^6 h[1] h[2]^4}{34836480} + \frac{37 h^6 h[2]^5}{4644864} \right) + \text{ar}[1, 2] \left(\frac{h}{4} + \frac{1}{32} h^2 h[1] - \frac{19 h^4 h[1]^3}{46080} + \frac{37 h^6 h[1]^5}{4644864} + \frac{5}{96} h^2 h[2] - \frac{169 h^4 h[1]^2 h[2]}{138240} - \frac{1279 h^6 h[1]^4 h[2]}{34836480} - \frac{187 h^4 h[1] h[2]^2}{138240} + \frac{125 h^6 h[1]^3 h[2]^2}{1741824} - \frac{11 h^4 h[2]^3}{15360} + \frac{2539 h^6 h[1]^2 h[2]^3}{34836480} + \frac{2669 h^6 h[1] h[2]^4}{69672960} + \frac{13 h^6 h[2]^5}{1161216} \right)$$

`ToDegree[6, Vp[7] - Vb]`

$$-\frac{1}{96} h^2 \text{ar}[2, 2] h[1] - \frac{1}{96} h^2 \text{ar}[1, 1] h[2]$$