

Pensieve header: Optimization for the NOE1 program, base D with μ consolidated and DP split at NfeDP.

Initialization

```
SetDirectory["C:\\drorbn\\AcademicPensieve\\2017-01"];
<< "NOE-Utilities.m"
```

NOE-It

```
Ri,j+ := E[1, Log[ti] lj, ei fj, ei li fj + li lj + ei2 fj2/4];
Ri,j- := E[1, -Log[ti] lj, -ti-1 ei fj, -li lj + ti-1 ei lj fj - ti-2 ei2 fj2/4];
(uri := E[ti-1/2, 0, 0, li ti2]; nri := E[ti1/2, 0, 0, -li ti2];)
```

```
DPx→Dα,y→Dβ[P-][f-] := (* means P[∂α,∂β][f] *)
PPDP@Total[CoefficientRules[P, {x, y}] /. ({m-, n-} → c-) ⇒ c D[f, {α, m}, {β, n}]]
```

```
CF[E[ω-, L-, Q-, P-]] := PPCF@E[Expand@ω, Expand@L, Expand@Q, Expand@P];
```

```
E /: E[ω1-, L1-, Q1-, P1-] E[ω2-, L2-, Q2-, P2-] := CF@E[ω1 ω2, L1 + L2, ω2 Q1 + ω1 Q2, ω24 P1 + ω14 P2];
```

```
Δ[k-] := ((tk - 1) (2 (α β + δ μ)2 - α2 β2) - 4 ek lk fk δ2 μ2 -
δ (1 + μ) (fk2 α2 + ek2 β2) - ek2 fk2 δ3 (1 + 3 μ) -
2 (α β + 2 δ μ + ek fk δ2 (1 + 2 μ) + 2 lk δ μ2) (fk α + ek β) - 4 (lk μ2 + ek fk δ (1 + μ)) (α β + δ μ) (1 + tk) / 4;
```

```
Nfi, ej → k-[E[ω-, L-, Q-, P-]] := PPNfe@With[{q = ((1 - tk) α β + β ek + δ ek fk + α fk) / μ}, E[
PPNfeω@Expand@Together[μ ω /. μ → 1 + (tk - 1) δ /. δ → ω-1 ∂fi, ej Q],
L,
PPNfeQ@Expand@Together[μ ω q + μ (Q /. fi | ej → 0) /. μ → 1 + (tk - 1) δ /.
{α → ω-1 (∂fi Q /. ej → 0), β → ω-1 (∂ej Q /. fi → 0), δ → ω-1 ∂fi, ej Q}],
Plus[
PPNfeDP@Echo@Expand@Together@Total[Echo@Together[(CoefficientRules[P, {fi, ej}] /.
({m-, n-} → c-) ⇒ c μ4 (D[eq, {α, m}, {β, n}] /. e- → 1)) /. {
α → ω-1 (∂fi Q /. ej → 0), β → ω-1 (∂ej Q /. fi → 0), δ → ω-1 ∂fi, ej Q, μ →
ω-1 Expand[ω + (tk - 1) ∂fi, ej Q]
}]]],
PPNfeΔ@Expand@Together[
ω4 Δ[k] /. μ → 1 + (tk - 1) δ /. {α → ω-1 (∂fi Q /. ej → 0), β → ω-1 (∂ej Q /. fi → 0), δ → ω-1 ∂fi, ej Q}]]
]]];
```

```
Nlj (x:e|f)i → k-[E[ω-, L-, Q-, P-]] := PPNlx@With[{q = ey β xk + γ lk}, E[
ω,
PPNlxL@Expand@Together[γ lk + (L /. lj → 0) /. γ → ∂lj L],
PPNlxQ@Expand@Together[ω ey β xk + (Q /. xi → 0) /. {γ → ∂lj L, β → ω-1 ∂xi Q}],
PPNlxP@Expand@Together[e-q DPlj → Dy, xi → Dβ[P][eq] /. {γ → ∂lj L, β → ω-1 ∂xi Q}]]];
```

```
mi,j → k-[Z-E] := PPm@Module[{x, z},
CF[(Z // Nfi ej → x // Nli ex → x // Nfx lj → x) /. Z-i|j|x → Zk]]]
```

Testing 3₁...

```
BeginProfile [];
Timing[Z[Knot[3, 1]]];
EndProfile [];
PrintProfile []
```

- » $\left\{ \frac{1}{4} \left(t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k1\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636} \right) \right\}$
- » $\frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k1\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636}$
- » $\left\{ \frac{1}{4} \left(t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636} \right) \right\}$
- » $\frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636}$
- » $\left\{ \frac{1}{4} \left(t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636} \right) \right\}$
- » $\frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636}$
- » $\left\{ -\frac{1}{4} e_4^2 \left(-f_{k\$4636} + t f_{k\$4636} - f_{x\$4659} \right)^2, -t e_4 \left(-f_{k\$4636} + t f_{k\$4636} - f_{x\$4659} \right) l_1, \right.$
 $\left. \frac{1}{4} \left(-e_4 + t e_4 + t e_{x\$4659} \right)^2 f_{k\$4636}^2, t \left(-e_4 + t e_4 + t e_{x\$4659} \right) f_{k\$4636} l_{k\$4636}, -t^2 l_1 l_4 - t^2 l_{k\$4636} + t^2 l_{k\$4636}^2 \right\}$
- » $-\frac{1}{2} t e_4 e_{x\$4659} f_{k\$4636}^2 + \frac{1}{2} t^2 e_4 e_{x\$4659} f_{k\$4636}^2 + \frac{1}{4} t^2 e_{x\$4659}^2 f_{k\$4636}^2 - \frac{1}{2} e_4^2 f_{k\$4636} f_{x\$4659} +$
 $\frac{1}{2} t e_4^2 f_{k\$4636} f_{x\$4659} - \frac{1}{4} e_4^2 f_{x\$4659}^2 + t e_4 f_{k\$4636} l_1 - t^2 e_4 f_{k\$4636} l_1 + t e_4 f_{x\$4659} l_1 - t^2 l_1 l_4 -$
 $t^2 l_{k\$4636} - t e_4 f_{k\$4636} l_{k\$4636} + t^2 e_4 f_{k\$4636} l_{k\$4636} + t^2 e_{x\$4659} f_{k\$4636} l_{k\$4636} + t^2 l_{k\$4636}^2$
- » $\left\{ -\frac{1}{4} t^2 e_{x\$4666}^2 f_1^2, e_{x\$4666} \left(t^2 e_1 f_1^2 + t^3 f_1 l_1 \right), \frac{1}{4} \left(t^2 e_1^2 f_1^2 - 4 t^4 l_1 + 4 t^3 e_1 f_1 l_1 + 4 t^4 l_1^2 - 4 t^3 e_1 f_1 l_4 - 4 t^4 l_1 l_4 - 4 t^4 l_{k\$4636} \right) \right\}$
- » $\frac{1}{4} t^2 e_1^2 f_1^2 + t^2 e_1 e_{x\$4666} f_1^2 - \frac{1}{4} t^2 e_{x\$4666}^2 f_1^2 - t^4 l_1 + t^3 e_1 f_1 l_1 + t^3 e_{x\$4666} f_1 l_1 + t^4 l_1^2 - t^3 e_1 f_1 l_4 - t^4 l_1 l_4 - t^4 l_{k\$4636}$
- » $\left\{ \frac{1}{4} \left(4 t^3 e_4 f_1 + t^2 e_1^2 f_1^2 + 4 t^2 e_1 e_4 f_1^2 - t^2 e_4^2 f_1^2 - 4 t^4 l_1 + 4 t^3 e_1 f_1 l_1 + 4 t^3 e_4 f_1 l_1 + 4 t^4 l_1^2 - 4 t^4 l_4 - 4 t^3 e_1 f_1 l_4 - 4 t^4 l_1 l_4 \right) \right\}$
- » $t^3 e_4 f_1 + \frac{1}{4} t^2 e_1^2 f_1^2 + t^2 e_1 e_4 f_1^2 - \frac{1}{4} t^2 e_4^2 f_1^2 - t^4 l_1 + t^3 e_1 f_1 l_1 + t^3 e_4 f_1 l_1 + t^4 l_1^2 - t^4 l_4 - t^3 e_1 f_1 l_4 - t^4 l_1 l_4$
- » $\left\{ \frac{1}{4} t^2 e_{x\$4680}^2 f_1^2, e_{x\$4680} \left(t^2 e_4 f_1^2 + t^3 f_1 l_1 - t^3 f_1 l_4 \right), \frac{1}{4} \left(4 t^3 e_4 f_1 - t^2 e_4^2 f_1^2 - 4 t^4 l_1 + 4 t^3 e_4 f_1 l_1 + 4 t^4 l_1^2 - 4 t^4 l_4 - 4 t^4 l_1 l_4 \right) \right\}$
- » $t^3 e_4 f_1 - \frac{1}{4} t^2 e_4^2 f_1^2 + t^2 e_4 e_{x\$4680} f_1^2 + \frac{1}{4} t^2 e_{x\$4680}^2 f_1^2 - t^4 l_1 + t^3 e_4 f_1 l_1 + t^3 e_{x\$4680} f_1 l_1 + t^4 l_1^2 - t^4 l_4 - t^3 e_{x\$4680} f_1 l_4 - t^4 l_1 l_4$
- » $\left\{ \frac{1}{4} \left(t^2 e_1^2 + 4 t^2 e_1 e_4 - t^2 e_4^2 \right) f_{x\$4687}^2, f_{x\$4687} \left(t^3 e_4 + t^3 e_1 l_1 + t^3 e_4 l_1 - t^3 e_1 l_4 \right), -t^4 l_1 + t^4 l_1^2 - t^4 l_4 - t^4 l_1 l_4 \right\}$
- » $t^3 e_4 f_{x\$4687} + \frac{1}{4} t^2 e_1^2 f_{x\$4687}^2 + t^2 e_1 e_4 f_{x\$4687}^2 - \frac{1}{4} t^2 e_4^2 f_{x\$4687}^2 -$
 $t^4 l_1 + t^3 e_1 f_{x\$4687} l_1 + t^3 e_4 f_{x\$4687} l_1 + t^4 l_1^2 - t^4 l_4 - t^3 e_1 f_{x\$4687} l_4 - t^4 l_1 l_4$
- » $\left\{ \frac{1}{4} t^2 e_{x\$4694}^2 f_1^2, e_{x\$4694} \left(t^2 e_4 f_1^2 + t^3 f_1 l_1 - t^3 f_1 l_4 \right), \frac{1}{4} \left(4 t^3 e_4 f_1 - t^2 e_4^2 f_1^2 - 4 t^4 l_1 + 4 t^3 e_4 f_1 l_1 + 4 t^4 l_1^2 - 4 t^4 l_4 - 4 t^4 l_1 l_4 \right) \right\}$
- » $t^3 e_4 f_1 - \frac{1}{4} t^2 e_4^2 f_1^2 + t^2 e_4 e_{x\$4694} f_1^2 + \frac{1}{4} t^2 e_{x\$4694}^2 f_1^2 - t^4 l_1 + t^3 e_4 f_1 l_1 + t^3 e_{x\$4694} f_1 l_1 + t^4 l_1^2 - t^4 l_4 - t^3 e_{x\$4694} f_1 l_4 - t^4 l_1 l_4$
- » $\left\{ \frac{1}{4} \left(t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k1\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636} \right) \right\}$
- » $\frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k1\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636}$
- » $\left\{ \frac{1}{4} \left(t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636} \right) \right\}$
- » $\frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636}$
- » $\left\{ \frac{1}{4} \left(t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636} \right) \right\}$
- » $\frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636}$

- $$\left\{ -\frac{1}{4} e_2^2 (-f_{k\$4636} + t f_{k\$4636} - f_{x\$4723})^2, -t e_2 (-f_{k\$4636} + t f_{k\$4636} - f_{x\$4723}) l_5, \right.$$

$$\left. \frac{1}{4} (-e_2 + t e_2 + t e_{x\$4723})^2 f_{k\$4636}^2, t (-e_2 + t e_2 + t e_{x\$4723}) f_{k\$4636} l_{k\$4636}, -t^2 l_2 l_5 - t^2 l_{k\$4636} + t^2 l_{k\$4636}^2 \right\}$$
- $$-\frac{1}{2} t e_2 e_{x\$4723} f_{k\$4636}^2 + \frac{1}{2} t^2 e_2 e_{x\$4723} f_{k\$4636}^2 + \frac{1}{4} t^2 e_{x\$4723}^2 f_{k\$4636}^2 - \frac{1}{2} e_2^2 f_{k\$4636} f_{x\$4723} +$$

$$\frac{1}{2} t e_2^2 f_{k\$4636} f_{x\$4723} - \frac{1}{4} e_2^2 f_{x\$4723}^2 + t e_2 f_{k\$4636} l_5 - t^2 e_2 f_{k\$4636} l_5 + t e_2 f_{x\$4723} l_5 - t^2 l_2 l_5 -$$

$$t^2 l_{k\$4636} - t e_2 f_{k\$4636} l_{k\$4636} + t^2 e_2 f_{k\$4636} l_{k\$4636} + t^2 e_{x\$4723} f_{k\$4636} l_{k\$4636} + t^2 l_{k\$4636}^2$$
- $$\left\{ -\frac{1}{4} e_{x\$4730}^2 f_5^2, e_{x\$4730} (e_5 f_5^2 + t f_5 l_5), \frac{1}{4} (e_5^2 f_5^2 - 4 t e_5 f_5 l_2 - 4 t^2 l_5 + 4 t e_5 f_5 l_5 - 4 t^2 l_2 l_5 + 4 t^2 l_5^2) \right\}$$
- $$\frac{1}{4} e_5^2 f_5^2 + e_5 e_{x\$4730} f_5^2 - \frac{1}{4} e_{x\$4730}^2 f_5^2 - t e_5 f_5 l_2 - t^2 l_5 + t e_5 f_5 l_5 + t e_{x\$4730} f_5 l_5 - t^2 l_2 l_5 + t^2 l_5^2$$
- $$\left\{ \frac{1}{4} (-e_2^2 f_5^2 + 4 e_2 e_5 f_5^2 + e_5^2 f_5^2 - 4 t e_5 f_5 l_2 - 4 t^2 l_5 + 4 t e_2 f_5 l_5 + 4 t e_5 f_5 l_5 - 4 t^2 l_2 l_5 + 4 t^2 l_5^2) \right\}$$
- $$-\frac{1}{4} e_2^2 f_5^2 + e_2 e_5 f_5^2 + \frac{1}{4} e_5^2 f_5^2 - t e_5 f_5 l_2 - t^2 l_5 + t e_2 f_5 l_5 + t e_5 f_5 l_5 - t^2 l_2 l_5 + t^2 l_5^2$$
- $$\left\{ \frac{1}{4} e_{x\$4744}^2 f_5^2, e_{x\$4744} (e_2 f_5^2 - t f_5 l_2 + t f_5 l_5), \frac{1}{4} (-e_2^2 f_5^2 - 4 t^2 l_5 + 4 t e_2 f_5 l_5 - 4 t^2 l_2 l_5 + 4 t^2 l_5^2) \right\}$$
- $$-\frac{1}{4} e_2^2 f_5^2 + e_2 e_{x\$4744} f_5^2 + \frac{1}{4} e_{x\$4744}^2 f_5^2 - t e_{x\$4744} f_5 l_2 - t^2 l_5 + t e_2 f_5 l_5 + t e_{x\$4744} f_5 l_5 - t^2 l_2 l_5 + t^2 l_5^2$$
- $$\left\{ -\frac{1}{4} (e_2^2 - 4 e_2 e_5 - e_5^2) f_{x\$4751}^2, -f_{x\$4751} (t e_5 l_2 - t e_2 l_5 - t e_5 l_5), -t^2 l_5 - t^2 l_2 l_5 + t^2 l_5^2 \right\}$$
- $$-\frac{1}{4} e_2^2 f_{x\$4751}^2 + e_2 e_5 f_{x\$4751}^2 + \frac{1}{4} e_5^2 f_{x\$4751}^2 - t e_5 f_{x\$4751} l_2 - t^2 l_5 + t e_2 f_{x\$4751} l_5 + t e_5 f_{x\$4751} l_5 - t^2 l_2 l_5 + t^2 l_5^2$$
- $$\left\{ \frac{1}{4} t^2 (e_0^2 + 4 e_0 e_4 - e_4^2) (-f_5 + t f_5 + t f_{x\$4758})^2, t^4 (-f_5 + t f_5 + t f_{x\$4758}) (e_4 + e_0 l_0 + e_4 l_0 - e_0 l_4), \right.$$

$$\left. -\frac{1}{4} t^2 (-e_0 + t e_0 + e_4 - t e_4 - t e_{x\$4758})^2 f_5^2, -t^3 (-e_0 + t e_0 + e_4 - t e_4 - t e_{x\$4758}) (e_5 f_5^2 + t f_5 l_5), \right.$$

$$\left. \frac{1}{4} (t^4 e_5^2 f_5^2 - 4 t^6 l_0 + 4 t^6 l_0^2 - 4 t^5 e_5 f_5 l_2 - 4 t^6 l_4 - 4 t^6 l_0 l_4 - 4 t^6 l_5 + 4 t^5 e_5 f_5 l_5 - 4 t^6 l_2 l_5 + 4 t^6 l_5^2) \right\}$$
- $$-t^4 e_4 f_5 + t^5 e_4 f_5 + \frac{3}{2} t^2 e_0 e_4 f_5^2 - 3 t^3 e_0 e_4 f_5^2 + \frac{3}{2} t^4 e_0 e_4 f_5^2 - \frac{1}{2} t^2 e_4^2 f_5^2 + t^3 e_4^2 f_5^2 - \frac{1}{2} t^4 e_4^2 f_5^2 + t^3 e_0 e_5 f_5^2 - t^4 e_0 e_5 f_5^2 -$$

$$t^3 e_4 e_5 f_5^2 + t^4 e_4 e_5 f_5^2 + \frac{1}{4} t^4 e_5^2 f_5^2 - \frac{1}{2} t^3 e_0 e_{x\$4758} f_5^2 + \frac{1}{2} t^4 e_0 e_{x\$4758} f_5^2 + \frac{1}{2} t^3 e_4 e_{x\$4758} f_5^2 - \frac{1}{2} t^4 e_4 e_{x\$4758} f_5^2 +$$

$$t^4 e_5 e_{x\$4758} f_5^2 - \frac{1}{4} t^4 e_{x\$4758}^2 f_5^2 + t^5 e_4 f_{x\$4758} - \frac{1}{2} t^3 e_0^2 f_5 f_{x\$4758} + \frac{1}{2} t^4 e_0^2 f_5 f_{x\$4758} - 2 t^3 e_0 e_4 f_5 f_{x\$4758} + 2 t^4 e_0 e_4 f_5 f_{x\$4758} +$$

$$\frac{1}{2} t^3 e_4^2 f_5 f_{x\$4758} - \frac{1}{2} t^4 e_4^2 f_5 f_{x\$4758} + \frac{1}{4} t^4 e_0^2 f_{x\$4758}^2 + t^4 e_0 e_4 f_{x\$4758}^2 - \frac{1}{4} t^4 e_4^2 f_{x\$4758}^2 - t^6 l_0 - t^4 e_0 f_5 l_0 + t^5 e_0 f_5 l_0 -$$

$$t^4 e_4 f_5 l_0 + t^5 e_4 f_5 l_0 + t^5 e_0 f_{x\$4758} l_0 + t^5 e_4 f_{x\$4758} l_0 + t^6 l_0^2 - t^5 e_5 f_5 l_2 - t^6 l_4 + t^4 e_0 f_5 l_4 - t^5 e_0 f_5 l_4 - t^5 e_0 f_{x\$4758} l_4 -$$

$$t^6 l_0 l_4 - t^6 l_5 + t^4 e_0 f_5 l_5 - t^5 e_0 f_5 l_5 - t^4 e_4 f_5 l_5 + t^5 e_4 f_5 l_5 + t^5 e_5 f_5 l_5 + t^5 e_{x\$4758} f_5 l_5 - t^6 l_2 l_5 + t^6 l_5^2$$
- $$\left\{ \frac{1}{4} t^4 e_{x\$4765}^2 f_5^2, -e_{x\$4765} (t^4 e_0 f_0 f_5 - t^4 e_4 f_0 f_5 - t^3 e_0 f_5^2 + t^3 e_4 f_5^2 - t^4 e_4 f_5^2 + t^5 f_5 l_0 - t^5 f_5 l_5), \right.$$

$$\left. \frac{1}{4} (4 t^5 e_4 f_0 + t^4 e_0^2 f_0^2 + 4 t^4 e_0 e_4 f_0^2 - t^4 e_4^2 f_0^2 - 4 t^4 e_4 f_5 + 4 t^5 e_4 f_5 - 12 t^3 e_0 e_4 f_0 f_5 + 4 t^3 e_4^2 f_0 f_5 - t^2 e_0^2 f_5^2 + 8 t^2 e_0 e_4 f_5^2 - \right.$$

$$4 t^3 e_0 e_4 f_5^2 - 3 t^2 e_4^2 f_5^2 + 4 t^3 e_4^2 f_5^2 - t^4 e_4^2 f_5^2 - 4 t^6 l_0 + 4 t^5 e_0 f_0 l_0 + 4 t^5 e_4 f_0 l_0 - 8 t^4 e_4 f_5 l_0 + 4 t^6 l_0^2 - 4 t^6 l_4 - 4 t^5 e_0 f_0 l_4 +$$

$$4 t^4 e_0 f_5 l_4 - 4 t^6 l_0 l_4 - 4 t^6 l_5 - 4 t^5 e_0 f_0 l_5 + 4 t^5 e_4 f_0 l_5 + 4 t^4 e_0 f_5 l_5 - 4 t^4 e_4 f_5 l_5 + 4 t^5 e_4 f_5 l_5 - 4 t^6 l_0 l_5 + 4 t^6 l_5^2) \left. \right\}$$
- $$t^5 e_4 f_0 + \frac{1}{4} t^4 e_0^2 f_0^2 + t^4 e_0 e_4 f_0^2 - \frac{1}{4} t^4 e_4^2 f_0^2 - t^4 e_4 f_5 + t^5 e_4 f_5 - 3 t^3 e_0 e_4 f_0 f_5 + t^3 e_4^2 f_0 f_5 - t^4 e_0 e_{x\$4765} f_0 f_5 +$$

$$t^4 e_4 e_{x\$4765} f_0 f_5 - \frac{1}{4} t^2 e_0^2 f_5^2 + 2 t^2 e_0 e_4 f_5^2 - t^3 e_0 e_4 f_5^2 - \frac{3}{4} t^2 e_4^2 f_5^2 + t^3 e_4^2 f_5^2 - \frac{1}{4} t^4 e_4^2 f_5^2 + t^3 e_0 e_{x\$4765} f_5^2 - t^3 e_4 e_{x\$4765} f_5^2 +$$

$$t^4 e_4 e_{x\$4765} f_5^2 + \frac{1}{4} t^4 e_{x\$4765}^2 f_5^2 - t^6 l_0 + t^5 e_0 f_0 l_0 + t^5 e_4 f_0 l_0 - 2 t^4 e_4 f_5 l_0 - t^5 e_{x\$4765} f_5 l_0 + t^6 l_0^2 - t^6 l_4 - t^5 e_0 f_0 l_4 +$$

$$t^4 e_0 f_5 l_4 - t^6 l_0 l_4 - t^6 l_5 - t^5 e_0 f_0 l_5 + t^5 e_4 f_0 l_5 + t^4 e_0 f_5 l_5 - t^4 e_4 f_5 l_5 + t^5 e_4 f_5 l_5 + t^5 e_{x\$4765} f_5 l_5 - t^6 l_0 l_5 + t^6 l_5^2$$
- $$\left\{ \frac{1}{4} (t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k1\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636}) \right\}$$
- $$\frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k1\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636}$$
- $$\left\{ \frac{1}{4} (t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636}) \right\}$$
- $$\frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636}$$

$$\begin{aligned}
& \left\{ \frac{1}{4} \left(t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - 4 t^2 l_{k\$4636} + 4 t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + 4 t^2 l_{k3\$4636} l_{k\$4636} \right) \right\} \\
& \frac{1}{4} t^2 e_{k\$4636}^2 f_{k3\$4636}^2 - t^2 l_{k\$4636} + t^2 e_{k\$4636} f_{k3\$4636} l_{k\$4636} + t^2 l_{k3\$4636} l_{k\$4636} \\
& \left\{ -\frac{1}{4} e_6^2 \left(-f_{k\$4636} + t f_{k\$4636} - f_{x\$4794} \right)^2, -t e_6 \left(-f_{k\$4636} + t f_{k\$4636} - f_{x\$4794} \right) l_3, \right. \\
& \quad \left. \frac{1}{4} \left(-e_6 + t e_6 + t e_{x\$4794} \right)^2 f_{k\$4636}^2, t \left(-e_6 + t e_6 + t e_{x\$4794} \right) f_{k\$4636} l_{k\$4636}, -t^2 l_3 l_6 - t^2 l_{k\$4636} + t^2 l_{k\$4636}^2 \right\} \\
& -\frac{1}{2} t e_6 e_{x\$4794} f_{k\$4636}^2 + \frac{1}{2} t^2 e_6 e_{x\$4794} f_{k\$4636}^2 + \frac{1}{4} t^2 e_{x\$4794}^2 f_{k\$4636}^2 - \frac{1}{2} e_6^2 f_{k\$4636} f_{x\$4794} + \\
& \quad \frac{1}{2} t e_6^2 f_{k\$4636} f_{x\$4794} - \frac{1}{4} e_6^2 f_{x\$4794}^2 + t e_6 f_{k\$4636} l_3 - t^2 e_6 f_{k\$4636} l_3 + t e_6 f_{x\$4794} l_3 - t^2 l_3 l_6 - \\
& \quad t^2 l_{k\$4636} - t e_6 f_{k\$4636} l_{k\$4636} + t^2 e_6 f_{k\$4636} l_{k\$4636} + t^2 e_{x\$4794} f_{k\$4636} l_{k\$4636} + t^2 l_{k\$4636}^2 \\
& \left\{ -\frac{1}{4} e_{x\$4801}^2 f_3^2, e_{x\$4801} \left(e_3 f_3^2 + t f_3 l_3 \right), \frac{1}{4} \left(e_3^2 f_3^2 - 4 t^2 l_3 + 4 t e_3 f_3 l_3 + 4 t^2 l_3^2 - 4 t e_3 f_3 l_6 - 4 t^2 l_3 l_6 \right) \right\} \\
& \frac{1}{4} e_3^2 f_3^2 + e_3 e_{x\$4801} f_3^2 - \frac{1}{4} e_{x\$4801}^2 f_3^2 - t^2 l_3 + t e_3 f_3 l_3 + t e_{x\$4801} f_3 l_3 + t^2 l_3^2 - t e_3 f_3 l_6 - t^2 l_3 l_6 \\
& \left\{ \frac{1}{4} \left(e_3^2 f_3^2 + 4 e_3 e_6 f_3^2 - e_6^2 f_3^2 - 4 t^2 l_3 + 4 t e_3 f_3 l_3 + 4 t e_6 f_3 l_3 + 4 t^2 l_3^2 - 4 t e_3 f_3 l_6 - 4 t^2 l_3 l_6 \right) \right\} \\
& \frac{1}{4} e_3^2 f_3^2 + e_3 e_6 f_3^2 - \frac{1}{4} e_6^2 f_3^2 - t^2 l_3 + t e_3 f_3 l_3 + t e_6 f_3 l_3 + t^2 l_3^2 - t e_3 f_3 l_6 - t^2 l_3 l_6 \\
& \left\{ \frac{1}{4} e_{x\$4815}^2 f_3^2, e_{x\$4815} \left(e_6 f_3^2 + t f_3 l_3 - t f_3 l_6 \right), \frac{1}{4} \left(-e_6^2 f_3^2 - 4 t^2 l_3 + 4 t e_6 f_3 l_3 + 4 t^2 l_3^2 - 4 t^2 l_3 l_6 \right) \right\} \\
& -\frac{1}{4} e_6^2 f_3^2 + e_6 e_{x\$4815} f_3^2 + \frac{1}{4} e_{x\$4815}^2 f_3^2 - t^2 l_3 + t e_6 f_3 l_3 + t e_{x\$4815} f_3 l_3 + t^2 l_3^2 - t e_{x\$4815} f_3 l_6 - t^2 l_3 l_6 \\
& \left\{ \frac{1}{4} \left(e_3^2 + 4 e_3 e_6 - e_6^2 \right) f_{x\$4822}^2, f_{x\$4822} \left(t e_3 l_3 + t e_6 l_3 - t e_3 l_6 \right), -t^2 l_3 + t^2 l_3^2 - t^2 l_3 l_6 \right\} \\
& \frac{1}{4} e_3^2 f_{x\$4822}^2 + e_3 e_6 f_{x\$4822}^2 - \frac{1}{4} e_6^2 f_{x\$4822}^2 - t^2 l_3 + t e_3 f_{x\$4822} l_3 + t e_6 f_{x\$4822} l_3 + t^2 l_3^2 - t e_3 f_{x\$4822} l_6 - t^2 l_3 l_6 \\
& \left\{ \frac{1}{4} t^2 \left(-e_0^2 + 8 e_0 e_4 + 4 t e_0 e_4 - 3 e_4^2 + 4 t^2 e_4^2 \right) \left(-f_3 + t f_3 + t f_{x\$4829} \right)^2, \right. \\
& \quad -t^4 \left(-f_3 + t f_3 + t f_{x\$4829} \right) \left(t e_4 + 3 e_0 e_4 f_0 + 2 t e_0 e_4 f_0 - e_4^2 f_0 - t e_4^2 f_0 + 2 t e_4 l_0 + 2 t^2 e_4 l_0 - 2 t e_0 l_4 + t e_4 l_4 - 2 t^2 e_4 l_4 \right), \\
& \quad -\frac{1}{4} t^2 \left(-e_0 + t e_0 + e_4 - t e_4 + t^2 e_{x\$4829} \right)^2 f_3^2, t^4 \left(-e_0 + t e_0 + e_4 - t e_4 + t^2 e_{x\$4829} \right) \left(e_3 f_3^2 + t f_3 l_3 \right), \\
& \quad \frac{1}{4} \left(4 t^7 e_4 f_0 + t^6 e_0^2 f_0^2 + 4 t^6 e_0 e_4 f_0^2 - t^6 e_4^2 f_0^2 + t^6 e_3^2 f_3^2 - 4 t^8 l_0 + 4 t^7 e_0 f_0 l_0 + 4 t^7 e_4 f_0 l_0 + 4 t^8 l_0^2 - 4 t^8 l_3 + \right. \\
& \quad \left. 4 t^7 e_3 f_3 l_3 + 4 t^8 l_3^2 - 8 t^8 l_4 - 8 t^7 e_0 f_0 l_4 + 4 t^7 e_4 f_0 l_4 - 8 t^8 l_0 l_4 + 4 t^8 l_4^2 - 4 t^7 e_3 f_3 l_6 - 4 t^8 l_3 l_6 \right) \left. \right\} \\
& t^7 e_4 f_0 + \frac{1}{4} t^6 e_0^2 f_0^2 + t^6 e_0 e_4 f_0^2 - \frac{1}{4} t^6 e_4^2 f_0^2 + t^5 e_4 f_3 - t^6 e_4 f_3 + 3 t^4 e_0 e_4 f_0 f_3 - t^5 e_0 e_4 f_0 f_3 - 2 t^6 e_0 e_4 f_0 f_3 - t^4 e_4^2 f_0 f_3 + \\
& \quad t^6 e_4^2 f_0 f_3 - \frac{1}{2} t^2 e_0^2 f_3^2 + t^3 e_0^2 f_3^2 - \frac{1}{2} t^4 e_0^2 f_3^2 - t^4 e_0 e_3 f_3^2 + t^5 e_0 e_3 f_3^2 + \frac{1}{4} t^6 e_3^2 f_3^2 + \frac{5}{2} t^2 e_0 e_4 f_3^2 - 4 t^3 e_0 e_4 f_3^2 + \\
& \quad \frac{1}{2} t^4 e_0 e_4 f_3^2 + t^5 e_0 e_4 f_3^2 + t^4 e_3 e_4 f_3^2 - t^5 e_3 e_4 f_3^2 - t^2 e_4^2 f_3^2 + 2 t^3 e_4^2 f_3^2 - 2 t^5 e_4^2 f_3^2 + t^6 e_4^2 f_3^2 + \frac{1}{2} t^4 e_0 e_{x\$4829} f_3^2 - \\
& \quad \frac{1}{2} t^5 e_0 e_{x\$4829} f_3^2 + t^6 e_3 e_{x\$4829} f_3^2 - \frac{1}{2} t^4 e_4 e_{x\$4829} f_3^2 + \frac{1}{2} t^5 e_4 e_{x\$4829} f_3^2 - \frac{1}{4} t^6 e_{x\$4829}^2 f_3^2 - t^6 e_4 f_{x\$4829} - 3 t^5 e_0 e_4 f_0 f_{x\$4829} - \\
& \quad 2 t^6 e_0 e_4 f_0 f_{x\$4829} + t^5 e_4^2 f_0 f_{x\$4829} + t^6 e_4^2 f_0 f_{x\$4829} + \frac{1}{2} t^3 e_0^2 f_3 f_{x\$4829} - \frac{1}{2} t^4 e_0^2 f_3 f_{x\$4829} - 4 t^3 e_0 e_4 f_3 f_{x\$4829} + \\
& \quad 2 t^4 e_0 e_4 f_3 f_{x\$4829} + 2 t^5 e_0 e_4 f_3 f_{x\$4829} + \frac{3}{2} t^3 e_4^2 f_3 f_{x\$4829} - \frac{3}{2} t^4 e_4^2 f_3 f_{x\$4829} - 2 t^5 e_4^2 f_3 f_{x\$4829} + 2 t^6 e_4^2 f_3 f_{x\$4829} - \\
& \quad \frac{1}{4} t^4 e_0^2 f_{x\$4829}^2 + 2 t^4 e_0 e_4 f_{x\$4829}^2 + t^5 e_0 e_4 f_{x\$4829}^2 - \frac{3}{4} t^4 e_4^2 f_{x\$4829}^2 + t^6 e_4^2 f_{x\$4829}^2 - t^8 l_0 + t^7 e_0 f_0 l_0 + t^7 e_4 f_0 l_0 + \\
& \quad 2 t^5 e_4 f_3 l_0 - 2 t^7 e_4 f_3 l_0 - 2 t^6 e_4 f_{x\$4829} l_0 - 2 t^7 e_4 f_{x\$4829} l_0 + t^8 l_0^2 - t^8 l_3 - t^5 e_0 f_3 l_3 + t^6 e_0 f_3 l_3 + t^7 e_3 f_3 l_3 + \\
& \quad t^5 e_4 f_3 l_3 - t^6 e_4 f_3 l_3 + t^7 e_{x\$4829} f_3 l_3 + t^8 l_3^2 - 2 t^8 l_4 - 2 t^7 e_0 f_0 l_4 + t^7 e_4 f_0 l_4 - 2 t^5 e_0 f_3 l_4 + 2 t^6 e_0 f_3 l_4 + t^5 e_4 f_3 l_4 - \\
& \quad 3 t^6 e_4 f_3 l_4 + 2 t^7 e_4 f_3 l_4 + 2 t^6 e_0 f_{x\$4829} l_4 - t^6 e_4 f_{x\$4829} l_4 + 2 t^7 e_4 f_{x\$4829} l_4 - 2 t^8 l_0 l_4 + t^8 l_4^2 - t^7 e_3 f_3 l_6 - t^8 l_3 l_6 \\
& \left\{ -\frac{1}{4 t^8} \left(5 - 8 t + 7 t^2 - 4 t^3 + t^4 \right) \right. \\
& \quad \left(2 t^4 - 12 t^5 + 34 t^6 - 56 t^7 + 56 t^8 - 32 t^9 + 8 t^{10} - 4 t^3 e_0 f_0 + 24 t^4 e_0 f_0 - 64 t^5 e_0 f_0 + 96 t^6 e_0 f_0 - 84 t^7 e_0 f_0 + 40 t^8 e_0 f_0 - \right. \\
& \quad 8 t^9 e_0 f_0 - 4 t^5 e_3 f_0 + 20 t^6 e_3 f_0 - 44 t^7 e_3 f_0 + 52 t^8 e_3 f_0 - 32 t^9 e_3 f_0 + 8 t^{10} e_3 f_0 - 4 t^6 e_{x\$4836} f_0 + 16 t^7 e_{x\$4836} f_0 - \\
& \quad 28 t^8 e_{x\$4836} f_0 + 24 t^9 e_{x\$4836} f_0 - 8 t^{10} e_{x\$4836} f_0 + t^2 e_0^2 f_0^2 - 6 t^3 e_0^2 f_0^2 + 15 t^4 e_0^2 f_0^2 - 20 t^5 e_0^2 f_0^2 + 15 t^6 e_0^2 f_0^2 - 6 t^7 e_0^2 f_0^2 + \\
& \quad t^8 e_0^2 f_0^2 + 2 t^4 e_0 e_3 f_0^2 - 10 t^5 e_0 e_3 f_0^2 + 20 t^6 e_0 e_3 f_0^2 - 20 t^7 e_0 e_3 f_0^2 + 10 t^8 e_0 e_3 f_0^2 - 2 t^9 e_0 e_3 f_0^2 + t^6 e_3^2 f_0^2 - 4 t^7 e_3^2 f_0^2 + \\
& \quad 6 t^8 e_3^2 f_0^2 - 4 t^9 e_3^2 f_0^2 + t^{10} e_3^2 f_0^2 + 2 t^5 e_0 e_{x\$4836} f_0^2 - 8 t^6 e_0 e_{x\$4836} f_0^2 + 12 t^7 e_0 e_{x\$4836} f_0^2 - 8 t^8 e_0 e_{x\$4836} f_0^2 + 2 t^9 e_0 e_{x\$4836} f_0^2 + \\
& \quad 2 t^7 e_3 e_{x\$4836} f_0^2 - 6 t^8 e_3 e_{x\$4836} f_0^2 + 6 t^9 e_3 e_{x\$4836} f_0^2 - 2 t^{10} e_3 e_{x\$4836} f_0^2 + t^8 e_{x\$4836}^2 f_0^2 - 2 t^9 e_{x\$4836}^2 f_0^2 + t^{10} e_{x\$4836}^2 f_0^2 + \\
& \quad \left. 4 t^2 e_0 f_4 - 24 t^3 e_0 f_4 + 64 t^4 e_0 f_4 - 96 t^5 e_0 f_4 + 84 t^6 e_0 f_4 - 40 t^7 e_0 f_4 + 8 t^8 e_0 f_4 + 4 t^4 e_3 f_4 - 20 t^5 e_3 f_4 + \right. \\
& \quad \left. 20 t^6 e_3 f_4 - 12 t^7 e_3 f_4 + 4 t^8 e_3 f_4 - 4 t^9 e_3 f_4 + 4 t^{10} e_3 f_4 \right) \left. \right\}
\end{aligned}$$

$$\begin{aligned}
 & 44 t^6 e_3 f_4 - 52 t^7 e_3 f_4 + 32 t^8 e_3 f_4 - 8 t^9 e_3 f_4 + 4 t^5 e_{x\$4836} f_4 - 16 t^6 e_{x\$4836} f_4 + 28 t^7 e_{x\$4836} f_4 - 24 t^8 e_{x\$4836} f_4 + \\
 & 8 t^9 e_{x\$4836} f_4 - 2 t e_0^2 f_0 f_4 + 12 t^2 e_0^2 f_0 f_4 - 30 t^3 e_0^2 f_0 f_4 + 40 t^4 e_0^2 f_0 f_4 - 30 t^5 e_0^2 f_0 f_4 + 12 t^6 e_0^2 f_0 f_4 - 2 t^7 e_0^2 f_0 f_4 - \\
 & 4 t^3 e_0 e_3 f_0 f_4 + 20 t^4 e_0 e_3 f_0 f_4 - 40 t^5 e_0 e_3 f_0 f_4 + 40 t^6 e_0 e_3 f_0 f_4 - 20 t^7 e_0 e_3 f_0 f_4 + 4 t^8 e_0 e_3 f_0 f_4 - 2 t^5 e_3^2 f_0 f_4 + \\
 & 8 t^6 e_3^2 f_0 f_4 - 12 t^7 e_3^2 f_0 f_4 + 8 t^8 e_3^2 f_0 f_4 - 2 t^9 e_3^2 f_0 f_4 - 4 t^4 e_0 e_{x\$4836} f_0 f_4 + 16 t^5 e_0 e_{x\$4836} f_0 f_4 - 24 t^6 e_0 e_{x\$4836} f_0 f_4 + \\
 & 16 t^7 e_0 e_{x\$4836} f_0 f_4 - 4 t^8 e_0 e_{x\$4836} f_0 f_4 - 4 t^6 e_3 e_{x\$4836} f_0 f_4 + 12 t^7 e_3 e_{x\$4836} f_0 f_4 - 12 t^8 e_3 e_{x\$4836} f_0 f_4 + \\
 & 4 t^9 e_3 e_{x\$4836} f_0 f_4 - 2 t^7 e_{x\$4836}^2 f_0 f_4 + 4 t^8 e_{x\$4836}^2 f_0 f_4 - 2 t^9 e_{x\$4836}^2 f_0 f_4 + e_0^2 f_4^2 - 6 t e_0^2 f_4^2 + 15 t^2 e_0^2 f_4^2 - 20 t^3 e_0^2 f_4^2 + \\
 & 15 t^4 e_0^2 f_4^2 - 6 t^5 e_0^2 f_4^2 + t^6 e_0^2 f_4^2 + 2 t^2 e_0 e_3 f_4^2 - 10 t^3 e_0 e_3 f_4^2 + 20 t^4 e_0 e_3 f_4^2 - 20 t^5 e_0 e_3 f_4^2 + 10 t^6 e_0 e_3 f_4^2 - 2 t^7 e_0 e_3 f_4^2 + \\
 & t^4 e_3^2 f_4^2 - 4 t^5 e_3^2 f_4^2 + 6 t^6 e_3^2 f_4^2 - 4 t^7 e_3^2 f_4^2 + t^8 e_3^2 f_4^2 + 2 t^3 e_0 e_{x\$4836} f_4^2 - 8 t^4 e_0 e_{x\$4836} f_4^2 + 12 t^5 e_0 e_{x\$4836} f_4^2 - \\
 & 8 t^6 e_0 e_{x\$4836} f_4^2 + 2 t^7 e_0 e_{x\$4836} f_4^2 + 2 t^5 e_3 e_{x\$4836} f_4^2 - 6 t^6 e_3 e_{x\$4836} f_4^2 + 6 t^7 e_3 e_{x\$4836} f_4^2 - 2 t^8 e_3 e_{x\$4836} f_4^2 + t^6 e_{x\$4836}^2 f_4^2 - \\
 & 2 t^7 e_{x\$4836}^2 f_4^2 + t^8 e_{x\$4836}^2 f_4^2 + 4 t^4 e_0 f_{x\$4836} - 20 t^5 e_0 f_{x\$4836} + 44 t^6 e_0 f_{x\$4836} - 52 t^7 e_0 f_{x\$4836} + 32 t^8 e_0 f_{x\$4836} - \\
 & 8 t^9 e_0 f_{x\$4836} + 4 t^6 e_3 f_{x\$4836} - 16 t^7 e_3 f_{x\$4836} + 28 t^8 e_3 f_{x\$4836} - 24 t^9 e_3 f_{x\$4836} + 8 t^{10} e_3 f_{x\$4836} + 4 t^7 e_{x\$4836} f_{x\$4836} - \\
 & 12 t^8 e_{x\$4836} f_{x\$4836} + 16 t^9 e_{x\$4836} f_{x\$4836} - 8 t^{10} e_{x\$4836} f_{x\$4836} - 2 t^3 e_0^2 f_0 f_{x\$4836} + 10 t^4 e_0^2 f_0 f_{x\$4836} - 20 t^5 e_0^2 f_0 f_{x\$4836} + \\
 & 20 t^6 e_0^2 f_0 f_{x\$4836} - 10 t^7 e_0^2 f_0 f_{x\$4836} + 2 t^8 e_0^2 f_0 f_{x\$4836} - 4 t^5 e_0 e_3 f_0 f_{x\$4836} + 16 t^6 e_0 e_3 f_0 f_{x\$4836} - 24 t^7 e_0 e_3 f_0 f_{x\$4836} + \\
 & 16 t^8 e_0 e_3 f_0 f_{x\$4836} - 4 t^9 e_0 e_3 f_0 f_{x\$4836} - 2 t^7 e_3^2 f_0 f_{x\$4836} + 6 t^8 e_3^2 f_0 f_{x\$4836} - 6 t^9 e_3^2 f_0 f_{x\$4836} + 2 t^{10} e_3^2 f_0 f_{x\$4836} - \\
 & 4 t^6 e_0 e_{x\$4836} f_0 f_{x\$4836} + 12 t^7 e_0 e_{x\$4836} f_0 f_{x\$4836} - 12 t^8 e_0 e_{x\$4836} f_0 f_{x\$4836} + 4 t^9 e_0 e_{x\$4836} f_0 f_{x\$4836} - 4 t^8 e_3 e_{x\$4836} f_0 f_{x\$4836} + \\
 & 8 t^9 e_3 e_{x\$4836} f_0 f_{x\$4836} - 4 t^{10} e_3 e_{x\$4836} f_0 f_{x\$4836} - 2 t^9 e_{x\$4836}^2 f_0 f_{x\$4836} + 2 t^{10} e_{x\$4836}^2 f_0 f_{x\$4836} + 2 t^2 e_0^2 f_4 f_{x\$4836} - \\
 & 10 t^3 e_0^2 f_4 f_{x\$4836} + 20 t^4 e_0^2 f_4 f_{x\$4836} - 20 t^5 e_0^2 f_4 f_{x\$4836} + 10 t^6 e_0^2 f_4 f_{x\$4836} - 2 t^7 e_0^2 f_4 f_{x\$4836} + 4 t^4 e_0 e_3 f_4 f_{x\$4836} - \\
 & 16 t^5 e_0 e_3 f_4 f_{x\$4836} + 24 t^6 e_0 e_3 f_4 f_{x\$4836} - 16 t^7 e_0 e_3 f_4 f_{x\$4836} + 4 t^8 e_0 e_3 f_4 f_{x\$4836} + 2 t^6 e_3^2 f_4 f_{x\$4836} - 6 t^7 e_3^2 f_4 f_{x\$4836} + \\
 & 6 t^8 e_3^2 f_4 f_{x\$4836} - 2 t^9 e_3^2 f_4 f_{x\$4836} + 4 t^5 e_0 e_{x\$4836} f_4 f_{x\$4836} - 12 t^6 e_0 e_{x\$4836} f_4 f_{x\$4836} + 12 t^7 e_0 e_{x\$4836} f_4 f_{x\$4836} - \\
 & 4 t^8 e_0 e_{x\$4836} f_4 f_{x\$4836} + 4 t^7 e_3 e_{x\$4836} f_4 f_{x\$4836} - 8 t^8 e_3 e_{x\$4836} f_4 f_{x\$4836} + 4 t^9 e_3 e_{x\$4836} f_4 f_{x\$4836} + 2 t^8 e_{x\$4836}^2 f_4 f_{x\$4836} - \\
 & 2 t^9 e_{x\$4836}^2 f_4 f_{x\$4836} + t^4 e_0^2 f_{x\$4836}^2 - 4 t^5 e_0^2 f_{x\$4836}^2 + 6 t^6 e_0^2 f_{x\$4836}^2 - 4 t^7 e_0^2 f_{x\$4836}^2 + t^8 e_0^2 f_{x\$4836}^2 + 2 t^6 e_0 e_3 f_{x\$4836}^2 - \\
 & 6 t^7 e_0 e_3 f_{x\$4836}^2 + 6 t^8 e_0 e_3 f_{x\$4836}^2 - 2 t^9 e_0 e_3 f_{x\$4836}^2 + t^8 e_3^2 f_{x\$4836}^2 - 2 t^9 e_3^2 f_{x\$4836}^2 + t^{10} e_3^2 f_{x\$4836}^2 + 2 t^7 e_0 e_{x\$4836} f_{x\$4836}^2 - \\
 & 4 t^8 e_0 e_{x\$4836} f_{x\$4836}^2 + 2 t^9 e_0 e_{x\$4836} f_{x\$4836}^2 + 2 t^9 e_3 e_{x\$4836} f_{x\$4836}^2 - 2 t^{10} e_3 e_{x\$4836} f_{x\$4836}^2 + t^{10} e_{x\$4836}^2 f_{x\$4836}^2 \Big), \\
 & -\frac{1}{t^8} (1 - 2t + 2t^2) (3e_0 - 4te_0 + 3t^2e_0 - t^3e_0 + t^2e_3 - t^3e_3 + t^4e_3) (-t f_0 + t^2 f_0 + f_4 - t f_4 + t^2 f_{x\$4836}) \\
 & (-2t^2 + 6t^3 - 8t^4 + 4t^5 + t e_0 f_0 - 3t^2 e_0 f_0 + 3t^3 e_0 f_0 - t^4 e_0 f_0 + t^3 e_3 f_0 - 2t^4 e_3 f_0 + t^5 e_3 f_0 + \\
 & t^4 e_{x\$4836} f_0 - t^5 e_{x\$4836} f_0 - e_0 f_4 + 3t e_0 f_4 - 3t^2 e_0 f_4 + t^3 e_0 f_4 - t^2 e_3 f_4 + 2t^3 e_3 f_4 - t^4 e_3 f_4 - t^3 e_{x\$4836} f_4 + \\
 & t^4 e_{x\$4836} f_4 - t^2 e_0 f_{x\$4836} + 2t^3 e_0 f_{x\$4836} - t^4 e_0 f_{x\$4836} - t^4 e_3 f_{x\$4836} + t^5 e_3 f_{x\$4836} - t^5 e_{x\$4836} f_{x\$4836} \Big), \\
 & \frac{1}{4t^8} (1 - 2t + 2t^2)^2 (-3e_0^2 + 4te_0^2 - t^2e_0^2 - 4t^2e_0e_3 + 4t^3e_0e_3 + t^4e_3^2) \\
 & (-t f_0 + t^2 f_0 + f_4 - t f_4 + t^2 f_{x\$4836})^2, \\
 & -\frac{1}{t^8} (1 - 2t + 2t^2) (-e_0 + 2te_0 - t^2e_0 - t^2e_3 + t^3e_3 - t^3e_{x\$4836}) (t f_0 - 2f_4 + t f_4 + t^2 f_4) \\
 & (-2t^2 + 6t^3 - 8t^4 + 4t^5 + t e_0 f_0 - 3t^2 e_0 f_0 + 3t^3 e_0 f_0 - t^4 e_0 f_0 + t^3 e_3 f_0 - 2t^4 e_3 f_0 + t^5 e_3 f_0 + \\
 & t^4 e_{x\$4836} f_0 - t^5 e_{x\$4836} f_0 - e_0 f_4 + 3t e_0 f_4 - 3t^2 e_0 f_4 + t^3 e_0 f_4 - t^2 e_3 f_4 + 2t^3 e_3 f_4 - t^4 e_3 f_4 - t^3 e_{x\$4836} f_4 + \\
 & t^4 e_{x\$4836} f_4 - t^2 e_0 f_{x\$4836} + 2t^3 e_0 f_{x\$4836} - t^4 e_0 f_{x\$4836} - t^4 e_3 f_{x\$4836} + t^5 e_3 f_{x\$4836} - t^5 e_{x\$4836} f_{x\$4836} \Big), \\
 & -\frac{1}{t^8} (1 - 2t + 2t^2)^2 (-t^2 + 3t^3 - 4t^4 + 2t^5 + t e_0 f_0 - 3t^2 e_0 f_0 + 3t^3 e_0 f_0 - t^4 e_0 f_0 + t^3 e_3 f_0 - 2t^4 e_3 f_0 + t^5 e_3 f_0 + \\
 & t^4 e_{x\$4836} f_0 - t^5 e_{x\$4836} f_0 - e_0 f_4 + 3t e_0 f_4 - 3t^2 e_0 f_4 + t^3 e_0 f_4 - t^2 e_3 f_4 + 2t^3 e_3 f_4 - t^4 e_3 f_4 - t^3 e_{x\$4836} f_4 + \\
 & t^4 e_{x\$4836} f_4 - t^2 e_0 f_{x\$4836} + 2t^3 e_0 f_{x\$4836} - t^4 e_0 f_{x\$4836} - t^4 e_3 f_{x\$4836} + t^5 e_3 f_{x\$4836} - t^5 e_{x\$4836} f_{x\$4836} \Big) \\
 & (t^2 - t^3 + t^4 + 3t e_0 f_0 - t^2 e_0 f_0 - 5e_0 f_4 + t e_0 f_4 - t^2 e_3 f_4 + 2t^2 l_0 + t^2 l_3 - t^3 l_3 + t^4 l_3 + 2t^2 l_4 - 2t^3 l_4), \\
 & \frac{1}{t^8} (1 - 2t + 2t^2)^3 (-t f_0 + t^2 f_0 + f_4 - t f_4 + t^2 f_{x\$4836}) \\
 & (e_0^2 f_4 + t^2 e_0 e_3 f_4 - t^2 e_0 l_3 + t^3 e_0 l_3 + t^4 e_3 l_3 - 3t^2 e_0 l_4 + t^3 e_0 l_4 - t^4 e_3 l_4), \\
 & -\frac{1}{4t^8} (1 - 2t + 2t^2)^2 (-e_0 + 2te_0 - t^2e_0 - t^2e_3 + t^3e_3 - t^3e_{x\$4836})^2 \\
 & (t^2 f_0^2 - 4t f_0 f_4 - 4t^2 f_0 f_4 + 3f_4^2 - 4t^2 f_4^2), \\
 & -\frac{1}{t^8} (1 - 2t + 2t^2)^3 (-e_0 + 2te_0 - t^2e_0 - t^2e_3 + t^3e_3 - t^3e_{x\$4836}) (t^3 f_0 + t^2 e_0 f_0^2 - t^2 f_4 - 3t e_0 f_0 f_4 - \\
 & 2t^2 e_0 f_0 f_4 + 2e_0 f_4^2 + t e_0 f_4^2 + t^3 f_0 l_0 - 2t^2 f_4 l_0 - 2t^3 f_4 l_0 - t^2 f_4 l_3 + t^3 f_0 l_4 - t^2 f_4 l_4 + 2t^3 f_4 l_4), \\
 & \frac{1}{4t^8} (1 - 2t + 2t^2)^4 (t^2 e_0^2 f_0^2 - e_0^2 f_4^2 - 4t^4 l_0 + 4t^3 e_0 f_0 l_0 + 4t^4 l_0^2 - 4t^4 l_3 + 4t^2 e_0 f_4 l_3 + 4t^4 l_3^2 - \\
 & 8t^4 l_4 - 8t^3 e_0 f_0 l_4 + 8t^2 e_0 f_4 l_4 - 8t^4 l_0 l_4 - 4t^4 l_3 l_4 + 4t^4 l_4^2) \Big\} \\
 & \gg -112 - \frac{3}{2t^4} + \frac{11}{t^3} - \frac{38}{t^2} + \frac{80}{t} + 109t - \frac{153t^2}{2} + 42t^3 - 20t^4 + 8t^5 - 2t^6 - 77e_0 f_0 - \frac{2e_0 f_0}{t^4} + \frac{12e_0 f_0}{t^3} - \frac{35e_0 f_0}{t^2} + \frac{64e_0 f_0}{t} + 61t e_0 f_0 - \\
 & 30t^2 e_0 f_0 + 11t^3 e_0 f_0 - 6t^4 e_0 f_0 + 2t^5 e_0 f_0 - 33e_3 f_0 + \frac{e_3 f_0}{t^3} - \frac{7e_3 f_0}{t^2} + \frac{20e_3 f_0}{t} + 35t e_3 f_0 - 26t^2 e_3 f_0 + 15t^3 e_3 f_0 - \\
 & 7t^4 e_3 f_0 + 4t^5 e_3 f_0 - 2t^6 e_3 f_0 + 50e_{x\$4836} f_0 + \frac{3e_{x\$4836} f_0}{t^2} - \frac{18e_{x\$4836} f_0}{t} - 85t e_{x\$4836} f_0 + 96t^2 e_{x\$4836} f_0 - 74t^3 e_{x\$4836} f_0 +
 \end{aligned}$$

$$\begin{aligned}
& 37 t^4 e_{x\$4836} f_0 - 10 t^5 e_{x\$4836} f_0 + 2 t^6 e_{x\$4836} f_0 + \frac{239}{4} e_0^2 f_0^2 + \frac{e_0^2 f_0^2}{t^4} - \frac{8 e_0^2 f_0^2}{t^3} + \frac{109 e_0^2 f_0^2}{4 t^2} - \frac{52 e_0^2 f_0^2}{t} - \frac{77}{2} t e_0^2 f_0^2 + \frac{21}{2} t^2 e_0^2 f_0^2 + \\
& \frac{1}{2} t^3 e_0^2 f_0^2 - \frac{1}{4} t^4 e_0^2 f_0^2 - 9 e_0 e_3 f_0^2 + \frac{e_0 e_3 f_0^2}{t^3} - \frac{5 e_0 e_3 f_0^2}{t^2} + \frac{10 e_0 e_3 f_0^2}{t} - t e_0 e_3 f_0^2 + \frac{19}{2} t^2 e_0 e_3 f_0^2 - \frac{11}{2} t^3 e_0 e_3 f_0^2 - \frac{1}{2} t^4 e_0 e_3 f_0^2 + \\
& \frac{1}{2} t^5 e_0 e_3 f_0^2 + \frac{43}{4} e_3^2 f_0^2 + \frac{3 e_3^2 f_0^2}{4 t^2} - \frac{4 e_3^2 f_0^2}{t} - 17 t e_3^2 f_0^2 + 16 t^2 e_3^2 f_0^2 - 9 t^3 e_3^2 f_0^2 + \frac{11}{4} t^4 e_3^2 f_0^2 - \frac{1}{4} t^6 e_3^2 f_0^2 + 7 e_0 e_{x\$4836} f_0^2 + \\
& \frac{e_0 e_{x\$4836} f_0^2}{t^2} - \frac{4 e_0 e_{x\$4836} f_0^2}{t} - 7 t e_0 e_{x\$4836} f_0^2 + 3 t^2 e_0 e_{x\$4836} f_0^2 - \frac{1}{2} t^3 e_0 e_{x\$4836} f_0^2 + 2 t^4 e_0 e_{x\$4836} f_0^2 - \frac{1}{2} t^5 e_0 e_{x\$4836} f_0^2 + \\
& e_3 e_{x\$4836} f_0^2 - 3 t e_3 e_{x\$4836} f_0^2 + 6 t^2 e_3 e_{x\$4836} f_0^2 - 8 t^3 e_3 e_{x\$4836} f_0^2 + 5 t^4 e_3 e_{x\$4836} f_0^2 - \frac{3}{2} t^5 e_3 e_{x\$4836} f_0^2 + \frac{1}{2} t^6 e_3 e_{x\$4836} f_0^2 - \\
& \frac{1}{2} e_{x\$4836}^2 f_0^2 + \frac{5}{2} t e_{x\$4836}^2 f_0^2 - 5 t^2 e_{x\$4836}^2 f_0^2 + \frac{13}{2} t^3 e_{x\$4836}^2 f_0^2 - 5 t^4 e_{x\$4836}^2 f_0^2 + \frac{3}{2} t^5 e_{x\$4836}^2 f_0^2 - \frac{1}{4} t^6 e_{x\$4836}^2 f_0^2 - 109 e_0 f_4 - \\
& \frac{2 e_0 f_4}{t^4} + \frac{13 e_0 f_4}{t^3} - \frac{44 e_0 f_4}{t^2} + \frac{87 e_0 f_4}{t} + 86 t e_0 f_4 - 43 t^2 e_0 f_4 + 14 t^3 e_0 f_4 - 2 t^4 e_0 f_4 - 25 e_3 f_4 + \frac{5 e_3 f_4}{t} + 54 t e_3 f_4 - \\
& 63 t^2 e_3 f_4 + 39 t^3 e_3 f_4 - 12 t^4 e_3 f_4 + 2 t^5 e_3 f_4 + 39 e_{x\$4836} f_4 - \frac{e_{x\$4836} f_4}{t^3} + \frac{6 e_{x\$4836} f_4}{t^2} - \frac{18 e_{x\$4836} f_4}{t} - 64 t e_{x\$4836} f_4 + \\
& 74 t^2 e_{x\$4836} f_4 - 53 t^3 e_{x\$4836} f_4 + 18 t^4 e_{x\$4836} f_4 - 2 t^5 e_{x\$4836} f_4 - 64 e_0^2 f_0 f_4 - \frac{e_0^2 f_0 f_4}{t^4} + \frac{7 e_0^2 f_0 f_4}{t^3} - \frac{25 e_0^2 f_0 f_4}{t^2} + \\
& \frac{101 e_0^2 f_0 f_4}{2 t} + 47 t e_0^2 f_0 f_4 - 15 t^2 e_0^2 f_0 f_4 + \frac{1}{2} t^3 e_0^2 f_0 f_4 - 8 e_0 e_3 f_0 f_4 + \frac{2 e_0 e_3 f_0 f_4}{t} + 15 t e_0 e_3 f_0 f_4 - 21 t^2 e_0 e_3 f_0 f_4 + \\
& 13 t^3 e_0 e_3 f_0 f_4 - t^4 e_0 e_3 f_0 f_4 + 28 e_3^2 f_0 f_4 - \frac{e_3^2 f_0 f_4}{t^3} + \frac{6 e_3^2 f_0 f_4}{t^2} - \frac{17 e_3^2 f_0 f_4}{t} - 28 t e_3^2 f_0 f_4 + 19 t^2 e_3^2 f_0 f_4 - \frac{19}{2} t^3 e_3^2 f_0 f_4 + \\
& 2 t^4 e_3^2 f_0 f_4 + \frac{1}{2} t^5 e_3^2 f_0 f_4 + 18 e_0 e_{x\$4836} f_0 f_4 + \frac{e_0 e_{x\$4836} f_0 f_4}{t^2} - \frac{6 e_0 e_{x\$4836} f_0 f_4}{t} - 28 t e_0 e_{x\$4836} f_0 f_4 + 25 t^2 e_0 e_{x\$4836} f_0 f_4 - \\
& 16 t^3 e_0 e_{x\$4836} f_0 f_4 + t^4 e_0 e_{x\$4836} f_0 f_4 - 2 t e_3 e_{x\$4836} f_0 f_4 + 6 t^2 e_3 e_{x\$4836} f_0 f_4 - 2 t^3 e_3 e_{x\$4836} f_0 f_4 - t^4 e_3 e_{x\$4836} f_0 f_4 - \\
& t^5 e_3 e_{x\$4836} f_0 f_4 - 2 e_{x\$4836}^2 f_0 f_4 + \frac{e_{x\$4836}^2 f_0 f_4}{2 t} + 4 t e_{x\$4836}^2 f_0 f_4 - 6 t^2 e_{x\$4836}^2 f_0 f_4 + 6 t^3 e_{x\$4836}^2 f_0 f_4 - t^4 e_{x\$4836}^2 f_0 f_4 + \\
& \frac{1}{2} t^5 e_{x\$4836}^2 f_0 f_4 + \frac{45}{2} e_0^2 f_4^2 + \frac{7 e_0^2 f_4^2}{4 t^4} - \frac{8 e_0^2 f_4^2}{t^3} + \frac{75 e_0^2 f_4^2}{4 t^2} - \frac{51 e_0^2 f_4^2}{2 t} - \frac{27}{2} t e_0^2 f_4^2 + \frac{15}{4} t^2 e_0^2 f_4^2 + \frac{119}{2} e_0 e_3 f_4^2 - \frac{2 e_0 e_3 f_4^2}{t^3} + \\
& \frac{13 e_0 e_3 f_4^2}{t^2} - \frac{37 e_0 e_3 f_4^2}{t} - \frac{107}{2} t e_0 e_3 f_4^2 + \frac{55}{2} t^2 e_0 e_3 f_4^2 - \frac{15}{2} t^3 e_0 e_3 f_4^2 + e_3^2 f_4^2 + \frac{e_3^2 f_4^2}{4 t^4} - \frac{e_3^2 f_4^2}{t^3} + \frac{5 e_3^2 f_4^2}{4 t^2} - 10 t e_3^2 f_4^2 + \\
& \frac{75}{4} t^2 e_3^2 f_4^2 - 14 t^3 e_3^2 f_4^2 + \frac{15}{4} t^4 e_3^2 f_4^2 - 11 e_0 e_{x\$4836} f_4^2 - \frac{e_0 e_{x\$4836} f_4^2}{t^3} + \frac{3 e_0 e_{x\$4836} f_4^2}{t^2} - \frac{e_0 e_{x\$4836} f_4^2}{t} + \frac{47}{2} t e_0 e_{x\$4836} f_4^2 - \\
& 18 t^2 e_0 e_{x\$4836} f_4^2 + \frac{15}{2} t^3 e_0 e_{x\$4836} f_4^2 + 10 e_3 e_{x\$4836} f_4^2 + \frac{e_3 e_{x\$4836} f_4^2}{t^2} - \frac{5 e_3 e_{x\$4836} f_4^2}{t} - 6 t e_3 e_{x\$4836} f_4^2 - 11 t^2 e_3 e_{x\$4836} f_4^2 + \\
& \frac{37}{2} t^3 e_3 e_{x\$4836} f_4^2 - \frac{15}{2} t^4 e_3 e_{x\$4836} f_4^2 - 2 e_{x\$4836}^2 f_4^2 + \frac{e_{x\$4836}^2 f_4^2}{2 t} + \frac{7}{2} t e_{x\$4836}^2 f_4^2 - t^2 e_{x\$4836}^2 f_4^2 - \frac{9}{2} t^3 e_{x\$4836}^2 f_4^2 + \frac{15}{4} t^4 e_{x\$4836}^2 f_4^2 + \\
& 113 e_0 f_{x\$4836} + \frac{2 e_0 f_{x\$4836}}{t^4} - \frac{12 e_0 f_{x\$4836}}{t^3} + \frac{40 e_0 f_{x\$4836}}{t^2} - \frac{83 e_0 f_{x\$4836}}{t} - 98 t e_0 f_{x\$4836} + 49 t^2 e_0 f_{x\$4836} - 9 t^3 e_0 f_{x\$4836} - \\
& 4 t^4 e_0 f_{x\$4836} + 2 t^5 e_0 f_{x\$4836} - 20 e_3 f_{x\$4836} - \frac{2 e_3 f_{x\$4836}}{t^2} + \frac{10 e_3 f_{x\$4836}}{t} + 19 t e_3 f_{x\$4836} - 4 t^2 e_3 f_{x\$4836} - 6 t^3 e_3 f_{x\$4836} + \\
& 3 t^4 e_3 f_{x\$4836} + 2 t^5 e_3 f_{x\$4836} - 2 t^6 e_3 f_{x\$4836} + 18 e_{x\$4836} f_{x\$4836} - \frac{4 e_{x\$4836} f_{x\$4836}}{t} - 38 t e_{x\$4836} f_{x\$4836} + 47 t^2 e_{x\$4836} f_{x\$4836} - \\
& 37 t^3 e_{x\$4836} f_{x\$4836} + 21 t^4 e_{x\$4836} f_{x\$4836} - 8 t^5 e_{x\$4836} f_{x\$4836} + 2 t^6 e_{x\$4836} f_{x\$4836} - 8 e_0^2 f_0 f_{x\$4836} - \frac{e_0^2 f_0 f_{x\$4836}}{t^4} + \frac{6 e_0^2 f_0 f_{x\$4836}}{t^3} - \\
& \frac{14 e_0^2 f_0 f_{x\$4836}}{t^2} + \frac{17 e_0^2 f_0 f_{x\$4836}}{t} - \frac{7}{2} t e_0^2 f_0 f_{x\$4836} + \frac{7}{2} t^2 e_0^2 f_0 f_{x\$4836} + \frac{1}{2} t^3 e_0^2 f_0 f_{x\$4836} - \frac{1}{2} t^4 e_0^2 f_0 f_{x\$4836} - 14 e_0 e_3 f_0 f_{x\$4836} - \\
& \frac{2 e_0 e_3 f_0 f_{x\$4836}}{t^2} + \frac{8 e_0 e_3 f_0 f_{x\$4836}}{t} + 14 t e_0 e_3 f_0 f_{x\$4836} - 4 t^2 e_0 e_3 f_0 f_{x\$4836} - 3 t^3 e_0 e_3 f_0 f_{x\$4836} + t^5 e_0 e_3 f_0 f_{x\$4836} + \\
& 5 e_3^2 f_0 f_{x\$4836} - \frac{e_3^2 f_0 f_{x\$4836}}{t} - 14 t e_3^2 f_0 f_{x\$4836} + 21 t^2 e_3^2 f_0 f_{x\$4836} - 17 t^3 e_3^2 f_0 f_{x\$4836} + 7 t^4 e_3^2 f_0 f_{x\$4836} - \frac{1}{2} t^5 e_3^2 f_0 f_{x\$4836} - \\
& \frac{1}{2} t^6 e_3^2 f_0 f_{x\$4836} + 6 e_0 e_{x\$4836} f_0 f_{x\$4836} - \frac{2 e_0 e_{x\$4836} f_0 f_{x\$4836}}{t} - 10 t e_0 e_{x\$4836} f_0 f_{x\$4836} + 12 t^2 e_0 e_{x\$4836} f_0 f_{x\$4836} - \\
& 6 t^3 e_0 e_{x\$4836} f_0 f_{x\$4836} + 3 t^4 e_0 e_{x\$4836} f_0 f_{x\$4836} - t^5 e_0 e_{x\$4836} f_0 f_{x\$4836} + e_3 e_{x\$4836} f_0 f_{x\$4836} - 4 t e_3 e_{x\$4836} f_0 f_{x\$4836} + \\
& 4 t^2 e_3 e_{x\$4836} f_0 f_{x\$4836} - 4 t^3 e_3 e_{x\$4836} f_0 f_{x\$4836} + 4 t^4 e_3 e_{x\$4836} f_0 f_{x\$4836} - 2 t^5 e_3 e_{x\$4836} f_0 f_{x\$4836} + t^6 e_3 e_{x\$4836} f_0 f_{x\$4836} + \\
& \frac{3}{2} t e_{x\$4836}^2 f_0 f_{x\$4836} - \frac{9}{2} t^2 e_{x\$4836}^2 f_0 f_{x\$4836} + \frac{11}{2} t^3 e_{x\$4836}^2 f_0 f_{x\$4836} - \frac{11}{2} t^4 e_{x\$4836}^2 f_0 f_{x\$4836} + \frac{5}{2} t^5 e_{x\$4836}^2 f_0 f_{x\$4836} - \\
& \frac{1}{2} t^6 e_{x\$4836}^2 f_0 f_{x\$4836} - \frac{11}{2} e_0^2 f_4 f_{x\$4836} - \frac{e_0^2 f_4 f_{x\$4836}}{t^4} + \frac{4 e_0^2 f_4 f_{x\$4836}}{t^3} - \frac{8 e_0^2 f_4 f_{x\$4836}}{t^2} + \frac{9 e_0^2 f_4 f_{x\$4836}}{t} + \frac{9}{2} t e_0^2 f_4 f_{x\$4836} - \\
& \frac{5}{2} t^2 e_0^2 f_4 f_{x\$4836} + \frac{1}{2} t^3 e_0^2 f_4 f_{x\$4836} - 10 e_0 e_3 f_4 f_{x\$4836} - \frac{e_0 e_3 f_4 f_{x\$4836}}{t^2} + \frac{4 e_0 e_3 f_4 f_{x\$4836}}{t} + 10 t e_0 e_3 f_4 f_{x\$4836} - \\
& 5 t^2 e_0 e_3 f_4 f_{x\$4836} + 4 t^3 e_0 e_3 f_4 f_{x\$4836} - t^4 e_0 e_3 f_4 f_{x\$4836} + 12 e_3^2 f_4 f_{x\$4836} + \frac{e_3^2 f_4 f_{x\$4836}}{t^2} - \frac{5 e_3^2 f_4 f_{x\$4836}}{t} - 14 t e_3^2 f_4 f_{x\$4836} + \\
& 6 t^2 e_3^2 f_4 f_{x\$4836} + t^3 e_3^2 f_4 f_{x\$4836} - \frac{3}{2} t^4 e_3^2 f_4 f_{x\$4836} + \frac{1}{2} t^5 e_3^2 f_4 f_{x\$4836} + 8 e_0 e_{x\$4836} f_4 f_{x\$4836} - \frac{2 e_0 e_{x\$4836} f_4 f_{x\$4836}}{t} - \\
& 18 t e_0 e_{x\$4836} f_4 f_{x\$4836} + 14 t^2 e_0 e_{x\$4836} f_4 f_{x\$4836} - 7 t^3 e_0 e_{x\$4836} f_4 f_{x\$4836} + t^4 e_0 e_{x\$4836} f_4 f_{x\$4836} + 6 t^2 e_3 e_{x\$4836} f_4 f_{x\$4836} -
\end{aligned}$$

$$\begin{aligned}
& 12 t^3 e_3 e_{x\$4836} f_4 f_{x\$4836} + 6 t^4 e_3 e_{x\$4836} f_4 f_{x\$4836} - t^5 e_3 e_{x\$4836} f_4 f_{x\$4836} - \frac{1}{2} e_{x\$4836}^2 f_4 f_{x\$4836} + \frac{3}{2} t e_{x\$4836}^2 f_4 f_{x\$4836} - \\
& \frac{5}{2} t^2 e_{x\$4836}^2 f_4 f_{x\$4836} + \frac{11}{2} t^3 e_{x\$4836}^2 f_4 f_{x\$4836} - \frac{9}{2} t^4 e_{x\$4836}^2 f_4 f_{x\$4836} + \frac{1}{2} t^5 e_{x\$4836}^2 f_4 f_{x\$4836} + 18 e_0^2 f_{x\$4836}^2 + \frac{e_0^2 f_{x\$4836}^2}{t^4} - \\
& \frac{5 e_0^2 f_{x\$4836}^2}{t^3} + \frac{25 e_0^2 f_{x\$4836}^2}{2 t^2} - \frac{19 e_0^2 f_{x\$4836}^2}{t} - 11 t e_0^2 f_{x\$4836}^2 + \frac{15}{4} t^2 e_0^2 f_{x\$4836}^2 - \frac{1}{4} t^4 e_0^2 f_{x\$4836}^2 + 4 e_0 e_3 f_{x\$4836}^2 + \frac{e_0 e_3 f_{x\$4836}^2}{2 t^2} - \\
& \frac{3 e_0 e_3 f_{x\$4836}^2}{2 t} - 6 t e_0 e_3 f_{x\$4836}^2 + 5 t^2 e_0 e_3 f_{x\$4836}^2 - 3 t^3 e_0 e_3 f_{x\$4836}^2 + \frac{1}{2} t^4 e_0 e_3 f_{x\$4836}^2 + \frac{1}{2} t^5 e_0 e_3 f_{x\$4836}^2 - \frac{1}{2} t e_3 f_{x\$4836}^2 + \\
& 3 t^2 e_3 f_{x\$4836}^2 - \frac{9}{2} t^3 e_3 f_{x\$4836}^2 + 3 t^4 e_3 f_{x\$4836}^2 - \frac{1}{2} t^5 e_3 f_{x\$4836}^2 - \frac{1}{4} t^6 e_3 f_{x\$4836}^2 - e_0 e_{x\$4836} f_{x\$4836}^2 + \frac{e_0 e_{x\$4836} f_{x\$4836}^2}{2 t} + \\
& 3 t e_0 e_{x\$4836} f_{x\$4836}^2 - 2 t^2 e_0 e_{x\$4836} f_{x\$4836}^2 + t^4 e_0 e_{x\$4836} f_{x\$4836}^2 - \frac{1}{2} t^5 e_0 e_{x\$4836} f_{x\$4836}^2 - \frac{3}{2} t e_3 e_{x\$4836} f_{x\$4836}^2 + \frac{7}{2} t^2 e_3 e_{x\$4836} f_{x\$4836}^2 - \\
& \frac{5}{2} t^3 e_3 e_{x\$4836} f_{x\$4836}^2 + \frac{3}{2} t^4 e_3 e_{x\$4836} f_{x\$4836}^2 - \frac{1}{2} t^5 e_3 e_{x\$4836} f_{x\$4836}^2 + \frac{1}{2} t^6 e_3 e_{x\$4836} f_{x\$4836}^2 - \frac{5}{4} t^2 e_{x\$4836}^2 f_{x\$4836}^2 + \\
& 2 t^3 e_{x\$4836}^2 f_{x\$4836}^2 - \frac{7}{4} t^4 e_{x\$4836}^2 f_{x\$4836}^2 + t^5 e_{x\$4836}^2 f_{x\$4836}^2 - \frac{1}{4} t^6 e_{x\$4836}^2 f_{x\$4836}^2 + \frac{l_0}{t^4} - \frac{6 l_0}{t^3} + \frac{16 l_0}{t^2} - \frac{20 l_0}{t} + 40 t l_0 - 64 t^2 l_0 + \\
& 48 t^3 l_0 - 16 t^4 l_0 - 200 e_0 f_0 l_0 - \frac{2 e_0 f_0 l_0}{t^4} + \frac{17 e_0 f_0 l_0}{t^3} - \frac{64 e_0 f_0 l_0}{t^2} + \frac{142 e_0 f_0 l_0}{t} + 180 t e_0 f_0 l_0 - 96 t^2 e_0 f_0 l_0 + \\
& 24 t^3 e_0 f_0 l_0 + 6 e_3 f_0 l_0 - \frac{e_3 f_0 l_0}{t^3} + \frac{5 e_3 f_0 l_0}{t^2} - \frac{10 e_3 f_0 l_0}{t} + 12 t e_3 f_0 l_0 - 28 t^2 e_3 f_0 l_0 + 24 t^3 e_3 f_0 l_0 - 8 t^4 e_3 f_0 l_0 - \\
& 6 e_{x\$4836} f_0 l_0 - \frac{e_{x\$4836} f_0 l_0}{t^2} + \frac{4 e_{x\$4836} f_0 l_0}{t} + 12 t^2 e_{x\$4836} f_0 l_0 - 16 t^3 e_{x\$4836} f_0 l_0 + 8 t^4 e_{x\$4836} f_0 l_0 + 112 e_0 f_4 l_0 - \\
& \frac{4 e_0 f_4 l_0}{t^3} + \frac{24 e_0 f_4 l_0}{t^2} - \frac{68 e_0 f_4 l_0}{t} - 112 t e_0 f_4 l_0 + 64 t^2 e_0 f_4 l_0 - 16 t^3 e_0 f_4 l_0 + 20 e_3 f_4 l_0 - \frac{4 e_3 f_4 l_0}{t} - 48 t e_3 f_4 l_0 + \\
& 64 t^2 e_3 f_4 l_0 - 48 t^3 e_3 f_4 l_0 + 16 t^4 e_3 f_4 l_0 - 4 e_{x\$4836} f_4 l_0 + 16 t e_{x\$4836} f_4 l_0 - 32 t^2 e_{x\$4836} f_4 l_0 + 32 t^3 e_{x\$4836} f_4 l_0 - \\
& 16 t^4 e_{x\$4836} f_4 l_0 + 56 e_0 f_{x\$4836} l_0 + \frac{2 e_0 f_{x\$4836} l_0}{t^4} - \frac{12 e_0 f_{x\$4836} l_0}{t^3} + \frac{34 e_0 f_{x\$4836} l_0}{t^2} - \frac{56 e_0 f_{x\$4836} l_0}{t} - 32 t e_0 f_{x\$4836} l_0 + \\
& 8 t^2 e_0 f_{x\$4836} l_0 + 24 e_3 f_{x\$4836} l_0 + \frac{2 e_3 f_{x\$4836} l_0}{t^2} - \frac{10 e_3 f_{x\$4836} l_0}{t} - 32 t e_3 f_{x\$4836} l_0 + 24 t^2 e_3 f_{x\$4836} l_0 - 8 t^3 e_3 f_{x\$4836} l_0 - \\
& 8 e_{x\$4836} f_{x\$4836} l_0 + \frac{2 e_{x\$4836} f_{x\$4836} l_0}{t} + 16 t e_{x\$4836} f_{x\$4836} l_0 - 16 t^2 e_{x\$4836} f_{x\$4836} l_0 + 8 t^3 e_{x\$4836} f_{x\$4836} l_0 + 136 l_0^2 + \frac{l_0^2}{t^4} - \\
& \frac{8 l_0^2}{t^3} + \frac{32 l_0^2}{t^2} - \frac{80 l_0^2}{t} - 160 t l_0^2 + 128 t^2 l_0^2 - 64 t^3 l_0^2 + 16 t^4 l_0^2 + 6 l_3 - \frac{l_3}{t} - 18 t l_3 + 32 t^2 l_3 - 36 t^3 l_3 + 24 t^4 l_3 - 8 t^5 l_3 + \\
& 17 e_0 f_0 l_3 + \frac{e_0 f_0 l_3}{t^2} - \frac{6 e_0 f_0 l_3}{t} - 28 t e_0 f_0 l_3 + 28 t^2 e_0 f_0 l_3 - 16 t^3 e_0 f_0 l_3 + 4 t^4 e_0 f_0 l_3 + 101 e_3 f_0 l_3 - \frac{2 e_3 f_0 l_3}{t^3} + \\
& \frac{14 e_3 f_0 l_3}{t^2} - \frac{48 e_3 f_0 l_3}{t} - 141 t e_3 f_0 l_3 + 132 t^2 e_3 f_0 l_3 - 80 t^3 e_3 f_0 l_3 + 28 t^4 e_3 f_0 l_3 - 4 t^5 e_3 f_0 l_3 - 18 e_{x\$4836} f_0 l_3 - \\
& \frac{e_{x\$4836} f_0 l_3}{t^2} + \frac{6 e_{x\$4836} f_0 l_3}{t} + 33 t e_{x\$4836} f_0 l_3 - 40 t^2 e_{x\$4836} f_0 l_3 + 32 t^3 e_{x\$4836} f_0 l_3 - 16 t^4 e_{x\$4836} f_0 l_3 + 4 t^5 e_{x\$4836} f_0 l_3 + \\
& 64 e_0 f_4 l_3 + \frac{e_0 f_4 l_3}{t^4} - \frac{7 e_0 f_4 l_3}{t^3} + \frac{24 e_0 f_4 l_3}{t^2} - \frac{49 e_0 f_4 l_3}{t} - 52 t e_0 f_4 l_3 + 24 t^2 e_0 f_4 l_3 - 4 t^3 e_0 f_4 l_3 + 73 e_3 f_4 l_3 + \\
& \frac{e_3 f_4 l_3}{t^4} - \frac{7 e_3 f_4 l_3}{t^3} + \frac{24 e_3 f_4 l_3}{t^2} - \frac{51 e_3 f_4 l_3}{t} - 72 t e_3 f_4 l_3 + 48 t^2 e_3 f_4 l_3 - 20 t^3 e_3 f_4 l_3 + 4 t^4 e_3 f_4 l_3 - e_{x\$4836} f_4 l_3 + \\
& 4 t e_{x\$4836} f_4 l_3 - 8 t^2 e_{x\$4836} f_4 l_3 + 8 t^3 e_{x\$4836} f_4 l_3 - 4 t^4 e_{x\$4836} f_4 l_3 + 5 e_0 f_{x\$4836} l_3 - \frac{e_0 f_{x\$4836} l_3}{t} - 12 t e_0 f_{x\$4836} l_3 + \\
& 16 t^2 e_0 f_{x\$4836} l_3 - 12 t^3 e_0 f_{x\$4836} l_3 + 4 t^4 e_0 f_{x\$4836} l_3 + 36 e_3 f_{x\$4836} l_3 + \frac{2 e_3 f_{x\$4836} l_3}{t^2} - \frac{12 e_3 f_{x\$4836} l_3}{t} - 65 t e_3 f_{x\$4836} l_3 + \\
& 76 t^2 e_3 f_{x\$4836} l_3 - 56 t^3 e_3 f_{x\$4836} l_3 + 24 t^4 e_3 f_{x\$4836} l_3 - 4 t^5 e_3 f_{x\$4836} l_3 - 5 e_{x\$4836} f_{x\$4836} l_3 + \frac{e_{x\$4836} f_{x\$4836} l_3}{t} + \\
& 13 t e_{x\$4836} f_{x\$4836} l_3 - 20 t^2 e_{x\$4836} f_{x\$4836} l_3 + 20 t^3 e_{x\$4836} f_{x\$4836} l_3 - 12 t^4 e_{x\$4836} f_{x\$4836} l_3 + 4 t^5 e_{x\$4836} f_{x\$4836} l_3 + \\
& 136 l_3^2 + \frac{l_3^2}{t^4} - \frac{8 l_3^2}{t^3} + \frac{32 l_3^2}{t^2} - \frac{80 l_3^2}{t} - 160 t l_3^2 + 128 t^2 l_3^2 - 64 t^3 l_3^2 + 16 t^4 l_3^2 - 36 l_4 - \frac{2 l_4}{t^2} + \frac{12 l_4}{t} + 64 t l_4 - 72 t^2 l_4 + \\
& 48 t^3 l_4 - 16 t^4 l_4 + 144 e_0 f_0 l_4 + \frac{2 e_0 f_0 l_4}{t^4} - \frac{14 e_0 f_0 l_4}{t^3} + \frac{48 e_0 f_0 l_4}{t^2} - \frac{102 e_0 f_0 l_4}{t} - 136 t e_0 f_0 l_4 + 80 t^2 e_0 f_0 l_4 - \\
& 24 t^3 e_0 f_0 l_4 - 10 e_3 f_0 l_4 + \frac{2 e_3 f_0 l_4}{t} + 24 t e_3 f_0 l_4 - 32 t^2 e_3 f_0 l_4 + 24 t^3 e_3 f_0 l_4 - 8 t^4 e_3 f_0 l_4 - 16 e_{x\$4836} f_0 l_4 - \\
& \frac{e_{x\$4836} f_0 l_4}{t^2} + \frac{6 e_{x\$4836} f_0 l_4}{t} + 24 t e_{x\$4836} f_0 l_4 - 20 t^2 e_{x\$4836} f_0 l_4 + 8 t^3 e_{x\$4836} f_0 l_4 - 120 e_0 f_4 l_4 - \frac{2 e_0 f_4 l_4}{t^4} + \frac{14 e_0 f_4 l_4}{t^3} - \\
& \frac{46 e_0 f_4 l_4}{t^2} + \frac{92 e_0 f_4 l_4}{t} + 104 t e_0 f_4 l_4 - 56 t^2 e_0 f_4 l_4 + 16 t^3 e_0 f_4 l_4 - 124 e_3 f_4 l_4 + \frac{2 e_3 f_4 l_4}{t^3} - \frac{16 e_3 f_4 l_4}{t^2} + \frac{58 e_3 f_4 l_4}{t} + \\
& 168 t e_3 f_4 l_4 - 144 t^2 e_3 f_4 l_4 + 72 t^3 e_3 f_4 l_4 - 16 t^4 e_3 f_4 l_4 + 12 e_{x\$4836} f_4 l_4 + \frac{e_{x\$4836} f_4 l_4}{t^3} - \frac{4 e_{x\$4836} f_4 l_4}{t^2} + \frac{4 e_{x\$4836} f_4 l_4}{t} - \\
& 44 t e_{x\$4836} f_4 l_4 + 64 t^2 e_{x\$4836} f_4 l_4 - 48 t^3 e_{x\$4836} f_4 l_4 + 16 t^4 e_{x\$4836} f_4 l_4 - 28 e_0 f_{x\$4836} l_4 - \frac{e_0 f_{x\$4836} l_4}{t^4} + \frac{5 e_0 f_{x\$4836} l_4}{t^3} - \\
& \frac{14 e_0 f_{x\$4836} l_4}{t^2} + \frac{24 e_0 f_{x\$4836} l_4}{t} + 20 t e_0 f_{x\$4836} l_4 - 8 t^2 e_0 f_{x\$4836} l_4 + 16 e_3 f_{x\$4836} l_4 + \frac{e_3 f_{x\$4836} l_4}{t^2} - \frac{6 e_3 f_{x\$4836} l_4}{t} -
\end{aligned}$$

$$\begin{aligned}
& 24 t e_3 f_{x\$4836} l_4 + 20 t^2 e_3 f_{x\$4836} l_4 - 8 t^3 e_3 f_{x\$4836} l_4 - 10 e_{x\$4836} f_{x\$4836} l_4 + \frac{2 e_{x\$4836} f_{x\$4836} l_4}{t} + 24 t e_{x\$4836} f_{x\$4836} l_4 - \\
& 32 t^2 e_{x\$4836} f_{x\$4836} l_4 + 24 t^3 e_{x\$4836} f_{x\$4836} l_4 - 8 t^4 e_{x\$4836} f_{x\$4836} l_4 - 272 l_0 l_4 - \frac{2 l_0 l_4}{t^4} + \frac{16 l_0 l_4}{t^3} - \frac{64 l_0 l_4}{t^2} + \frac{160 l_0 l_4}{t} + \\
& 320 t l_0 l_4 - 256 t^2 l_0 l_4 + 128 t^3 l_0 l_4 - 32 t^4 l_0 l_4 - 136 l_3 l_4 - \frac{l_3 l_4}{t^4} + \frac{8 l_3 l_4}{t^3} - \frac{32 l_3 l_4}{t^2} + \frac{80 l_3 l_4}{t} + 160 t l_3 l_4 - \\
& 128 t^2 l_3 l_4 + 64 t^3 l_3 l_4 - 16 t^4 l_3 l_4 + 136 l_4^2 + \frac{l_4^2}{t^4} - \frac{8 l_4^2}{t^3} + \frac{32 l_4^2}{t^2} - \frac{80 l_4^2}{t} - 160 t l_4^2 + 128 t^2 l_4^2 - 64 t^3 l_4^2 + 16 t^4 l_4^2
\end{aligned}$$

$$\begin{aligned}
& \gg \left\{ \frac{1}{4 t^2 (1 - 2 t + 2 t^2)^4} \right. \\
& (3 - 8 t + 14 t^2 - 8 t^3 + 2 t^4) (2 - 16 t + 64 t^2 - 164 t^3 + 296 t^4 - 392 t^5 + 386 t^6 - 280 t^7 + 144 t^8 - 48 t^9 + 8 t^{10} + 4 t^2 e_0 f_3 - \\
& 24 t^3 e_0 f_3 + 68 t^4 e_0 f_3 - 116 t^5 e_0 f_3 + 128 t^6 e_0 f_3 - 92 t^7 e_0 f_3 + 40 t^8 e_0 f_3 - 8 t^9 e_0 f_3 + 4 t e_{x\$4843} f_3 - 28 t^2 e_{x\$4843} f_3 + \\
& 96 t^3 e_{x\$4843} f_3 - 204 t^4 e_{x\$4843} f_3 + 292 t^5 e_{x\$4843} f_3 - 288 t^6 e_{x\$4843} f_3 + 192 t^7 e_{x\$4843} f_3 - 80 t^8 e_{x\$4843} f_3 + 16 t^9 e_{x\$4843} f_3 + \\
& t^4 e_0^2 f_3^2 - 4 t^5 e_0^2 f_3^2 + 6 t^6 e_0^2 f_3^2 - 4 t^7 e_0^2 f_3^2 + t^8 e_0^2 f_3^2 + 2 t^3 e_0 e_{x\$4843} f_3^2 - 10 t^4 e_0 e_{x\$4843} f_3^2 + 22 t^5 e_0 e_{x\$4843} f_3^2 - \\
& 26 t^6 e_0 e_{x\$4843} f_3^2 + 16 t^7 e_0 e_{x\$4843} f_3^2 - 4 t^8 e_0 e_{x\$4843} f_3^2 + t^2 e_{x\$4843}^2 f_3^2 - 6 t^3 e_{x\$4843}^2 f_3^2 + 17 t^4 e_{x\$4843}^2 f_3^2 - 28 t^5 e_{x\$4843}^2 f_3^2 + \\
& 28 t^6 e_{x\$4843}^2 f_3^2 - 16 t^7 e_{x\$4843}^2 f_3^2 + 4 t^8 e_{x\$4843}^2 f_3^2 + 4 t e_0 f_{x\$4843} - 28 t^2 e_0 f_{x\$4843} + 96 t^3 e_0 f_{x\$4843} - 204 t^4 e_0 f_{x\$4843} + \\
& 292 t^5 e_0 f_{x\$4843} - 288 t^6 e_0 f_{x\$4843} + 192 t^7 e_0 f_{x\$4843} - 80 t^8 e_0 f_{x\$4843} + 16 t^9 e_0 f_{x\$4843} + 4 e_{x\$4843} f_{x\$4843} - 32 t e_{x\$4843} f_{x\$4843} + \\
& 128 t^2 e_{x\$4843} f_{x\$4843} - 324 t^3 e_{x\$4843} f_{x\$4843} + 568 t^4 e_{x\$4843} f_{x\$4843} - 712 t^5 e_{x\$4843} f_{x\$4843} + 640 t^6 e_{x\$4843} f_{x\$4843} - \\
& 400 t^7 e_{x\$4843} f_{x\$4843} + 160 t^8 e_{x\$4843} f_{x\$4843} - 32 t^9 e_{x\$4843} f_{x\$4843} + 2 t^3 e_0^2 f_3 f_{x\$4843} - 10 t^4 e_0^2 f_3 f_{x\$4843} + 22 t^5 e_0^2 f_3 f_{x\$4843} - \\
& 26 t^6 e_0^2 f_3 f_{x\$4843} + 16 t^7 e_0^2 f_3 f_{x\$4843} - 4 t^8 e_0^2 f_3 f_{x\$4843} + 4 t^2 e_0 e_{x\$4843} f_3 f_{x\$4843} - 24 t^3 e_0 e_{x\$4843} f_3 f_{x\$4843} + \\
& 68 t^4 e_0 e_{x\$4843} f_3 f_{x\$4843} - 112 t^5 e_0 e_{x\$4843} f_3 f_{x\$4843} + 112 t^6 e_0 e_{x\$4843} f_3 f_{x\$4843} - 64 t^7 e_0 e_{x\$4843} f_3 f_{x\$4843} + \\
& 16 t^8 e_0 e_{x\$4843} f_3 f_{x\$4843} + 2 t e_{x\$4843}^2 f_3 f_{x\$4843} - 14 t^2 e_{x\$4843}^2 f_3 f_{x\$4843} + 48 t^3 e_{x\$4843}^2 f_3 f_{x\$4843} - 100 t^4 e_{x\$4843}^2 f_3 f_{x\$4843} + \\
& 136 t^5 e_{x\$4843}^2 f_3 f_{x\$4843} - 120 t^6 e_{x\$4843}^2 f_3 f_{x\$4843} + 64 t^7 e_{x\$4843}^2 f_3 f_{x\$4843} - 16 t^8 e_{x\$4843}^2 f_3 f_{x\$4843} + t^2 e_0^2 f_{x\$4843}^2 - \\
& 6 t^3 e_0^2 f_{x\$4843}^2 + 17 t^4 e_0^2 f_{x\$4843}^2 - 28 t^5 e_0^2 f_{x\$4843}^2 + 28 t^6 e_0^2 f_{x\$4843}^2 - 16 t^7 e_0^2 f_{x\$4843}^2 + 4 t^8 e_0^2 f_{x\$4843}^2 + 2 t e_0 e_{x\$4843} f_{x\$4843}^2 - \\
& 14 t^2 e_0 e_{x\$4843} f_{x\$4843}^2 + 48 t^3 e_0 e_{x\$4843} f_{x\$4843}^2 - 100 t^4 e_0 e_{x\$4843} f_{x\$4843}^2 + 136 t^5 e_0 e_{x\$4843} f_{x\$4843}^2 - 120 t^6 e_0 e_{x\$4843} f_{x\$4843}^2 + \\
& 64 t^7 e_0 e_{x\$4843} f_{x\$4843}^2 - 16 t^8 e_0 e_{x\$4843} f_{x\$4843}^2 + e_{x\$4843}^2 f_{x\$4843}^2 - 8 t e_{x\$4843}^2 f_{x\$4843}^2 + 32 t^2 e_{x\$4843}^2 f_{x\$4843}^2 - 80 t^3 e_{x\$4843}^2 f_{x\$4843}^2 + \\
& 136 t^4 e_{x\$4843}^2 f_{x\$4843}^2 - 160 t^5 e_{x\$4843}^2 f_{x\$4843}^2 + 128 t^6 e_{x\$4843}^2 f_{x\$4843}^2 - 64 t^7 e_{x\$4843}^2 f_{x\$4843}^2 + 16 t^8 e_{x\$4843}^2 f_{x\$4843}^2), \\
& \frac{1}{t^3 (1 - 2 t + 2 t^2)^4} (1 - t + t^2) (e_0 - 4 t e_0 + 6 t^2 e_0 - 3 t^3 e_0 - 4 t^4 e_0 + 5 t^5 e_0) \\
& (-t f_3 + t^2 f_3 - f_{x\$4843} + 2 t f_{x\$4843} - 2 t^2 f_{x\$4843}) \\
& (-2 + 8 t - 16 t^2 + 18 t^3 - 12 t^4 + 4 t^5 - t^2 e_0 f_3 + 2 t^3 e_0 f_3 - t^4 e_0 f_3 - t e_{x\$4843} f_3 + 3 t^2 e_{x\$4843} f_3 - \\
& 4 t^3 e_{x\$4843} f_3 + 2 t^4 e_{x\$4843} f_3 - t e_0 f_{x\$4843} + 3 t^2 e_0 f_{x\$4843} - 4 t^3 e_0 f_{x\$4843} + 2 t^4 e_0 f_{x\$4843} - \\
& e_{x\$4843} f_{x\$4843} + 4 t e_{x\$4843} f_{x\$4843} - 8 t^2 e_{x\$4843} f_{x\$4843} + 8 t^3 e_{x\$4843} f_{x\$4843} - 4 t^4 e_{x\$4843} f_{x\$4843}), \\
& ((1 - t + t^2)^2 (4 e_0^2 - 32 t e_0^2 + 109 t^2 e_0^2 - 208 t^3 e_0^2 + 238 t^4 e_0^2 - 152 t^5 e_0^2 + 42 t^6 e_0^2) \\
& (-t f_3 + t^2 f_3 - f_{x\$4843} + 2 t f_{x\$4843} - 2 t^2 f_{x\$4843})^2) / (4 t^4 (1 - 2 t + 2 t^2)^4), \\
& \frac{1}{t^3 (1 - 2 t + 2 t^2)^4} (1 - t + t^2) (-t e_0 + t^2 e_0 - e_{x\$4843} + 2 t e_{x\$4843} - 2 t^2 e_{x\$4843}) (f_3 - 5 t f_3 + 10 t^2 f_3 - 11 t^3 f_3 + 4 t^4 f_3 + t^5 f_3) \\
& (-2 + 8 t - 16 t^2 + 18 t^3 - 12 t^4 + 4 t^5 - t^2 e_0 f_3 + 2 t^3 e_0 f_3 - t^4 e_0 f_3 - t e_{x\$4843} f_3 + 3 t^2 e_{x\$4843} f_3 - \\
& 4 t^3 e_{x\$4843} f_3 + 2 t^4 e_{x\$4843} f_3 - t e_0 f_{x\$4843} + 3 t^2 e_0 f_{x\$4843} - 4 t^3 e_0 f_{x\$4843} + 2 t^4 e_0 f_{x\$4843} - \\
& e_{x\$4843} f_{x\$4843} + 4 t e_{x\$4843} f_{x\$4843} - 8 t^2 e_{x\$4843} f_{x\$4843} + 8 t^3 e_{x\$4843} f_{x\$4843} - 4 t^4 e_{x\$4843} f_{x\$4843}), \\
& - \frac{1}{t^4 (1 - 2 t + 2 t^2)^4} (1 - t + t^2)^2 (-1 + 4 t - 8 t^2 + 9 t^3 - 6 t^4 + 2 t^5 - t^2 e_0 f_3 + 2 t^3 e_0 f_3 - t^4 e_0 f_3 - t e_{x\$4843} f_3 + \\
& 3 t^2 e_{x\$4843} f_3 - 4 t^3 e_{x\$4843} f_3 + 2 t^4 e_{x\$4843} f_3 - t e_0 f_{x\$4843} + 3 t^2 e_0 f_{x\$4843} - 4 t^3 e_0 f_{x\$4843} + 2 t^4 e_0 f_{x\$4843} - \\
& e_{x\$4843} f_{x\$4843} + 4 t e_{x\$4843} f_{x\$4843} - 8 t^2 e_{x\$4843} f_{x\$4843} + 8 t^3 e_{x\$4843} f_{x\$4843} - 4 t^4 e_{x\$4843} f_{x\$4843}) \\
& (t - 6 t^2 + 14 t^3 - 20 t^4 + 18 t^5 - 12 t^6 + 4 t^7 - 2 e_0 f_3 + 12 t e_0 f_3 - 38 t^2 e_0 f_3 + 76 t^3 e_0 f_3 - 98 t^4 e_0 f_3 + 80 t^5 e_0 f_3 - \\
& 34 t^6 e_0 f_3 - t l_0 + 4 t^2 l_0 - 6 t^3 l_0 + 12 t^5 l_0 - 16 t^6 l_0 + 8 t^7 l_0 - 2 t l_3 + 10 t^2 l_3 - 24 t^3 l_3 + 32 t^4 l_3 - 24 t^5 l_3 + 8 t^6 l_3), \\
& - \frac{1}{t^4 (1 - 2 t + 2 t^2)^4} (1 - t + t^2)^3 (-t f_3 + t^2 f_3 - f_{x\$4843} + 2 t f_{x\$4843} - 2 t^2 f_{x\$4843}) \\
& (-2 e_0 + 12 t e_0 - 36 t^2 e_0 + 68 t^3 e_0 - 84 t^4 e_0 + 66 t^5 e_0 - 28 t^6 e_0 + 4 t^7 e_0 + t e_0^2 f_3 - 5 t^2 e_0^2 f_3 + 10 t^3 e_0^2 f_3 - 11 t^4 e_0^2 f_3 + \\
& 4 t^5 e_0^2 f_3 + t^6 e_0^2 f_3 - 2 e_0 l_0 + 17 t e_0 l_0 - 64 t^2 e_0 l_0 + 142 t^3 e_0 l_0 - 200 t^4 e_0 l_0 + 180 t^5 e_0 l_0 - 96 t^6 e_0 l_0 + \\
& 24 t^7 e_0 l_0 + 2 e_0 l_3 - 14 t e_0 l_3 + 50 t^2 e_0 l_3 - 112 t^3 e_0 l_3 + 168 t^4 e_0 l_3 - 168 t^5 e_0 l_3 + 104 t^6 e_0 l_3 - 32 t^7 e_0 l_3), \\
& ((1 - t + t^2)^2 (-t e_0 + t^2 e_0 - e_{x\$4843} + 2 t e_{x\$4843} - 2 t^2 e_{x\$4843})^2 \\
& (4 f_3^2 - 32 t f_3^2 + 109 t^2 f_3^2 - 208 t^3 f_3^2 + 238 t^4 f_3^2 - 152 t^5 f_3^2 + 42 t^6 f_3^2)) / (4 t^4 (1 - 2 t + 2 t^2)^4), \\
& \frac{1}{t^4 (1 - 2 t + 2 t^2)^4} (1 - t + t^2)^3 (-t e_0 + t^2 e_0 - e_{x\$4843} + 2 t e_{x\$4843} - 2 t^2 e_{x\$4843}) \\
& (2 f_3 - 12 t f_3 + 36 t^2 f_3 - 68 t^3 f_3 + 84 t^4 f_3 - 66 t^5 f_3 + 28 t^6 f_3 - 4 t^7 f_3 - t e_0 f_3^2 + 4 t^2 e_0 f_3^2 - 6 t^3 e_0 f_3^2 + 3 t^4 e_0 f_3^2 + \\
& 4 t^5 e_0 f_3^2 - 5 t^6 e_0 f_3^2 - 2 f_3 l_0 + 14 t f_3 l_0 - 50 t^2 f_3 l_0 + 112 t^3 f_3 l_0 - 168 t^4 f_3 l_0 + 168 t^5 f_3 l_0 - 104 t^6 f_3 l_0 +
\end{aligned}$$

$$\begin{aligned}
 & 32 t^7 f_3 l_0 + 2 f_3 l_3 - 17 t f_3 l_3 + 64 t^2 f_3 l_3 - 142 t^3 f_3 l_3 + 200 t^4 f_3 l_3 - 180 t^5 f_3 l_3 + 96 t^6 f_3 l_3 - 24 t^7 f_3 l_3 \Big), \\
 & \frac{1}{4 t^4 (1 - 2 t + 2 t^2)^4} (1 - t + t^2)^4 (-8 + 56 t - 188 t^2 + 384 t^3 - 516 t^4 + 464 t^5 - 272 t^6 + 96 t^7 - 16 t^8 - 16 t^3 e_0 f_3 + 48 t^4 e_0 f_3 - \\
 & 72 t^5 e_0 f_3 + 48 t^6 e_0 f_3 - 16 t^7 e_0 f_3 + 3 t^2 e_0^2 f_3^2 - 8 t^3 e_0^2 f_3^2 + 14 t^4 e_0^2 f_3^2 - 8 t^5 e_0^2 f_3^2 + 2 t^6 e_0^2 f_3^2 + 4 l_0 - 24 t l_0 + 64 t^2 l_0 - \\
 & 80 t^3 l_0 + 160 t^5 l_0 - 256 t^6 l_0 + 192 t^7 l_0 - 64 t^8 l_0 - 8 t e_0 f_3 l_0 + 40 t^2 e_0 f_3 l_0 - 96 t^3 e_0 f_3 l_0 + 128 t^4 e_0 f_3 l_0 - 96 t^5 e_0 f_3 l_0 + \\
 & 32 t^6 e_0 f_3 l_0 + 4 l_0^2 - 32 t l_0^2 + 128 t^2 l_0^2 - 320 t^3 l_0^2 + 544 t^4 l_0^2 - 640 t^5 l_0^2 + 512 t^6 l_0^2 - 256 t^7 l_0^2 + 64 t^8 l_0^2 + 4 l_3 - 24 t l_3 + \\
 & 64 t^2 l_3 - 80 t^3 l_3 + 160 t^5 l_3 - 256 t^6 l_3 + 192 t^7 l_3 - 64 t^8 l_3 - 4 t e_0 f_3 l_3 + 16 t^2 e_0 f_3 l_3 - 24 t^3 e_0 f_3 l_3 + 48 t^5 e_0 f_3 l_3 - \\
 & 64 t^6 e_0 f_3 l_3 + 32 t^7 e_0 f_3 l_3 - 8 l_0 l_3 + 64 t l_0 l_3 - 256 t^2 l_0 l_3 + 640 t^3 l_0 l_3 - 1088 t^4 l_0 l_3 + 1280 t^5 l_0 l_3 - 1024 t^6 l_0 l_3 + \\
 & 512 t^7 l_0 l_3 - 128 t^8 l_0 l_3 + 4 l_3^2 - 32 t l_3^2 + 128 t^2 l_3^2 - 320 t^3 l_3^2 + 544 t^4 l_3^2 - 640 t^5 l_3^2 + 512 t^6 l_3^2 - 256 t^7 l_3^2 + 64 t^8 l_3^2 \Big) \Big\} \\
 & \gg -15 - \frac{2}{t^4} + \frac{7}{t^3} - \frac{27}{2 t^2} + \frac{17}{t} + 10 t - 5 t^2 + 2 t^3 - \frac{t^4}{2} - 13 e_0 f_3 - \frac{2 e_0 f_3}{t^4} + \frac{4 e_0 f_3}{t^3} - \frac{8 e_0 f_3}{t^2} + \frac{9 e_0 f_3}{t} + 14 t e_0 f_3 - 11 t^2 e_0 f_3 + 5 t^3 e_0 f_3 - \\
 & 30 e_{x\$4843} f_3 - \frac{2 e_{x\$4843} f_3}{t^4} + \frac{8 e_{x\$4843} f_3}{t^3} - \frac{19 e_{x\$4843} f_3}{t^2} + \frac{30 e_{x\$4843} f_3}{t} + 19 t e_{x\$4843} f_3 - 6 t^2 e_{x\$4843} f_3 + \frac{7}{2} e_0^2 f_3^2 + \frac{11 e_0^2 f_3^2}{4 t^2} - \\
 & \frac{4 e_0^2 f_3^2}{t} - \frac{3}{2} t^2 e_0^2 f_3^2 - \frac{11}{2} e_0 e_{x\$4843} f_3^2 + \frac{e_0 e_{x\$4843} f_3^2}{t^3} - \frac{5 e_0 e_{x\$4843} f_3^2}{t^2} + \frac{15 e_0 e_{x\$4843} f_3^2}{2 t} + 3 t^2 e_0 e_{x\$4843} f_3^2 + 21 e_{x\$4843}^2 f_3^2 + \\
 & \frac{e_{x\$4843}^2 f_3^2}{t^4} - \frac{6 e_{x\$4843}^2 f_3^2}{t^3} + \frac{61 e_{x\$4843}^2 f_3^2}{4 t^2} - \frac{45 e_{x\$4843}^2 f_3^2}{2 t} - 11 t e_{x\$4843}^2 f_3^2 + \frac{5}{2} t^2 e_{x\$4843}^2 f_3^2 - 20 e_0 f_{x\$4843} - \frac{2 e_0 f_{x\$4843}}{t^4} + \frac{8 e_0 f_{x\$4843}}{t^3} - \\
 & \frac{17 e_0 f_{x\$4843}}{t^2} + \frac{24 e_0 f_{x\$4843}}{t} + 9 t e_0 f_{x\$4843} - 2 t^3 e_0 f_{x\$4843} + 6 e_{x\$4843} f_{x\$4843} + \frac{e_{x\$4843} f_{x\$4843}}{t^3} - \frac{e_{x\$4843} f_{x\$4843}}{t^2} - \frac{3 e_{x\$4843} f_{x\$4843}}{t} - \\
 & 6 t e_{x\$4843} f_{x\$4843} + 2 t^2 e_{x\$4843} f_{x\$4843} - \frac{13}{2} e_0^2 f_3 f_{x\$4843} + \frac{e_0^2 f_3 f_{x\$4843}}{t^3} - \frac{6 e_0^2 f_3 f_{x\$4843}}{t^2} + \frac{17 e_0^2 f_3 f_{x\$4843}}{2 t} + 3 t^2 e_0^2 f_3 f_{x\$4843} - \\
 & 23 e_0 e_{x\$4843} f_3 f_{x\$4843} - \frac{2 e_0 e_{x\$4843} f_3 f_{x\$4843}}{t^4} + \frac{8 e_0 e_{x\$4843} f_3 f_{x\$4843}}{t^3} - \frac{16 e_0 e_{x\$4843} f_3 f_{x\$4843}}{t^2} + \frac{22 e_0 e_{x\$4843} f_3 f_{x\$4843}}{t} + \\
 & 18 t e_0 e_{x\$4843} f_3 f_{x\$4843} - 11 t^2 e_0 e_{x\$4843} f_3 f_{x\$4843} - \frac{17}{2} e_{x\$4843}^2 f_3 f_{x\$4843} + \frac{e_{x\$4843}^2 f_3 f_{x\$4843}}{t^3} - \frac{4 e_{x\$4843}^2 f_3 f_{x\$4843}}{t^2} + \\
 & \frac{15 e_{x\$4843}^2 f_3 f_{x\$4843}}{2 t} + 4 t e_{x\$4843}^2 f_3 f_{x\$4843} + 19 e_0^2 f_{x\$4843}^2 + \frac{e_0^2 f_{x\$4843}^2}{t^4} - \frac{6 e_0^2 f_{x\$4843}^2}{t^3} + \frac{61 e_0^2 f_{x\$4843}^2}{4 t^2} - \frac{43 e_0^2 f_{x\$4843}^2}{2 t} - 9 t e_0^2 f_{x\$4843}^2 + \\
 & \frac{3}{2} t^2 e_0^2 f_{x\$4843}^2 - \frac{7}{2} e_0 e_{x\$4843} f_{x\$4843}^2 + \frac{e_0 e_{x\$4843} f_{x\$4843}^2}{t^3} - \frac{3 e_0 e_{x\$4843} f_{x\$4843}^2}{t^2} + \frac{9 e_0 e_{x\$4843} f_{x\$4843}^2}{2 t} + 2 t^2 e_0 e_{x\$4843} f_{x\$4843}^2 + \\
 & \frac{7}{2} e_{x\$4843}^2 f_{x\$4843}^2 + \frac{3 e_{x\$4843}^2 f_{x\$4843}^2}{4 t^2} - \frac{2 e_{x\$4843}^2 f_{x\$4843}^2}{t} - 2 t e_{x\$4843}^2 f_{x\$4843}^2 + \frac{1}{2} t^2 e_{x\$4843}^2 f_{x\$4843}^2 - 6 l_0 + \frac{l_0}{t^4} - \frac{3 l_0}{t^3} + \frac{4 l_0}{t^2} - \frac{l_0}{t} + \\
 & 11 t l_0 - 11 t^2 l_0 + 6 t^3 l_0 - 2 t^4 l_0 + 5 e_0 f_3 l_0 - \frac{2 e_0 f_3 l_0}{t^3} + \frac{5 e_0 f_3 l_0}{t^2} - \frac{7 e_0 f_3 l_0}{t} - t e_0 f_3 l_0 - t^2 e_0 f_3 l_0 + t^3 e_0 f_3 l_0 + \\
 & 35 e_{x\$4843} f_3 l_0 + \frac{2 e_{x\$4843} f_3 l_0}{t^4} - \frac{8 e_{x\$4843} f_3 l_0}{t^3} + \frac{19 e_{x\$4843} f_3 l_0}{t^2} - \frac{31 e_{x\$4843} f_3 l_0}{t} - 29 t e_{x\$4843} f_3 l_0 + 15 t^2 e_{x\$4843} f_3 l_0 - \\
 & 5 t^3 e_{x\$4843} f_3 l_0 - 38 e_0 f_{x\$4843} l_0 - \frac{2 e_0 f_{x\$4843} l_0}{t^4} + \frac{11 e_0 f_{x\$4843} l_0}{t^3} - \frac{26 e_0 f_{x\$4843} l_0}{t^2} + \frac{39 e_0 f_{x\$4843} l_0}{t} + 25 t e_0 f_{x\$4843} l_0 - \\
 & 10 t^2 e_0 f_{x\$4843} l_0 + 2 t^3 e_0 f_{x\$4843} l_0 - 2 e_{x\$4843} f_{x\$4843} l_0 - \frac{e_{x\$4843} f_{x\$4843} l_0}{t^3} + \frac{2 e_{x\$4843} f_{x\$4843} l_0}{t^2} - \frac{e_{x\$4843} f_{x\$4843} l_0}{t} + \\
 & 5 t e_{x\$4843} f_{x\$4843} l_0 - 4 t^2 e_{x\$4843} f_{x\$4843} l_0 + 2 t^3 e_{x\$4843} f_{x\$4843} l_0 + 19 l_0^2 + \frac{l_0}{t^4} - \frac{4 l_0^2}{t^3} + \frac{10 l_0^2}{t^2} - \frac{16 l_0^2}{t} - 16 t l_0^2 + 10 t^2 l_0^2 - \\
 & 4 t^3 l_0^2 + t^4 l_0^2 + 7 l_3 + \frac{l_3}{t^4} - \frac{4 l_3}{t^3} + \frac{8 l_3}{t^2} - \frac{10 l_3}{t} - 2 t l_3 - 2 t^2 l_3 + 2 t^3 l_3 - t^4 l_3 + 3 e_0 f_3 l_3 - \frac{e_0 f_3 l_3}{t^3} + \frac{3 e_0 f_3 l_3}{t^2} - \\
 & \frac{4 e_0 f_3 l_3}{t} - t^2 e_0 f_3 l_3 + t^3 e_0 f_3 l_3 - 43 e_{x\$4843} f_3 l_3 - \frac{2 e_{x\$4843} f_3 l_3}{t^4} + \frac{11 e_{x\$4843} f_3 l_3}{t^3} - \frac{27 e_{x\$4843} f_3 l_3}{t^2} + \frac{42 e_{x\$4843} f_3 l_3}{t} + \\
 & 30 t e_{x\$4843} f_3 l_3 - 13 t^2 e_{x\$4843} f_3 l_3 + 3 t^3 e_{x\$4843} f_3 l_3 + 30 e_0 f_{x\$4843} l_3 + \frac{2 e_0 f_{x\$4843} l_3}{t^4} - \frac{8 e_0 f_{x\$4843} l_3}{t^3} + \frac{18 e_0 f_{x\$4843} l_3}{t^2} - \\
 & \frac{28 e_0 f_{x\$4843} l_3}{t} - 24 t e_0 f_{x\$4843} l_3 + 12 t^2 e_0 f_{x\$4843} l_3 - 4 t^3 e_0 f_{x\$4843} l_3 + 10 e_{x\$4843} f_{x\$4843} l_3 - \frac{2 e_{x\$4843} f_{x\$4843} l_3}{t^3} + \\
 & \frac{6 e_{x\$4843} f_{x\$4843} l_3}{t^2} - \frac{10 e_{x\$4843} f_{x\$4843} l_3}{t} - 6 t e_{x\$4843} f_{x\$4843} l_3 + 2 t^2 e_{x\$4843} f_{x\$4843} l_3 - 38 l_0 l_3 - \frac{2 l_0 l_3}{t^4} + \frac{8 l_0 l_3}{t^3} - \frac{20 l_0 l_3}{t^2} + \\
 & \frac{32 l_0 l_3}{t} + 32 t l_0 l_3 - 20 t^2 l_0 l_3 + 8 t^3 l_0 l_3 - 2 t^4 l_0 l_3 + 19 l_3^2 + \frac{l_3^2}{t^4} - \frac{4 l_3^2}{t^3} + \frac{10 l_3^2}{t^2} - \frac{16 l_3^2}{t} - 16 t l_3^2 + 10 t^2 l_3^2 - 4 t^3 l_3^2 + t^4 l_3^2 \\
 & \{0.734375, \mathbb{E}[-1 + \frac{1}{t} + t, 0, 0, -16 + 2 e f - \frac{2}{t^4} - \frac{2 e f}{t^4} + \frac{2 l}{t^4} + \frac{7}{t^3} + \frac{4 e f}{t^3} - \frac{6 l}{t^3} - \frac{14}{t^2} - \frac{6 e f}{t^2} + \\
 & \frac{10 l}{t^2} + \frac{18}{t} + \frac{2 e f}{t} - \frac{8 l}{t} + 10 t - 6 e f t + 8 l t - 4 t^2 + 4 e f t^2 - 10 l t^2 + t^3 - 2 e f t^3 + 6 l t^3 - 2 l t^4] \Big\}
 \end{aligned}$$

NlxP: called 60 times, time in 0.205/0.312

Parents:

(60) 0.205/ 0.312 under Nlx

Children:

(60) 0.107/ 0.107 above DP

NfeDP: called 30 times, time in 0.203/0.203

```

Parents:
( 30) 0.203/ 0.203 under Nfe
DP: called 60 times, time in 0.107/0.107
Parents:
( 60) 0.107/ 0.107 under NlxP
NlxQ: called 60 times, time in 0.093/0.093
Parents:
( 60) 0.093/ 0.093 under Nlx
Nfe $\Delta$ : called 30 times, time in 0.046/0.046
Parents:
( 30) 0.046/ 0.046 under Nfe
NfeQ: called 30 times, time in 0.016/0.016
Parents:
( 30) 0.016/ 0.016 under Nfe
z: called 1 times, time in 0.016/0.734
Parents:
( 1) 0.016/ 0.734 under ProfileRoot
Children:
( 24) 0.016/ 0.016 above CF
( 30) 0.000/ 0.702 above m
NlxL: called 60 times, time in 0.016/0.016
Parents:
( 60) 0.016/ 0.016 under Nlx
Nlx: called 60 times, time in 0.016/0.437
Parents:
( 60) 0.016/ 0.437 under m
Children:
( 60) 0.016/ 0.016 above NlxL
( 60) 0.205/ 0.312 above NlxP
( 60) 0.093/ 0.093 above NlxQ
CF: called 54 times, time in 0.016/0.016
Parents:
( 30) 0.000/ 0.000 under m
( 24) 0.016/ 0.016 under z
ProfileRoot: called 0 times, time in 0./0.
Children:
( 1) 0.016/ 0.734 above z
Nfe $\omega$ : called 30 times, time in 0./0.
Parents:
( 30) 0.000/ 0.000 under Nfe
Nfe: called 30 times, time in 0./0.265
Parents:
( 30) 0.000/ 0.265 under m
Children:
( 30) 0.203/ 0.203 above NfeDP
( 30) 0.016/ 0.016 above NfeQ
( 30) 0.046/ 0.046 above Nfe $\Delta$ 
( 30) 0.000/ 0.000 above Nfe $\omega$ 
m: called 30 times, time in 0./0.702
Parents:
( 30) 0.000/ 0.702 under z
Children:
( 30) 0.000/ 0.000 above CF
( 30) 0.000/ 0.265 above Nfe
( 60) 0.016/ 0.437 above Nlx

```

```

BeginProfile[];
Timing[Z[Knot[10, 100]]]
EndProfile[];
PrintProfile[]

```

$$\left\{ 11.5156, \mathbb{E} \left[13 + \frac{1}{t^4} - \frac{4}{t^3} + \frac{9}{t^2} - \frac{12}{t} - 12t + 9t^2 - 4t^3 + t^4, 0, 0, \right. \right.$$

$$- 2563146 + 253564ef - \frac{6}{t^{16}} - \frac{8ef}{t^{16}} + \frac{8l}{t^{16}} + \frac{92}{t^{15}} + \frac{112ef}{t^{15}} - \frac{120l}{t^{15}} - \frac{723}{t^{14}} - \frac{812ef}{t^{14}} + \frac{924l}{t^{14}} + \frac{3818}{t^{13}} +$$

$$\frac{3972ef}{t^{13}} - \frac{4784l}{t^{13}} - \frac{15133}{t^{12}} - \frac{14616ef}{t^{12}} + \frac{18588l}{t^{12}} + \frac{47848}{t^{11}} + \frac{42936ef}{t^{11}} - \frac{57552l}{t^{11}} - \frac{125539}{t^{10}} - \frac{104604ef}{t^{10}} +$$

$$\frac{147540l}{t^{10}} + \frac{281054}{t^9} + \frac{216948ef}{t^9} - \frac{321552l}{t^9} - \frac{548129}{t^8} - \frac{390040ef}{t^8} + \frac{606988l}{t^8} + \frac{945756}{t^7} + \frac{614936ef}{t^7} -$$

$$\frac{1004976l}{t^7} - \frac{1460263}{t^6} - \frac{854884ef}{t^6} + \frac{1469820l}{t^6} + \frac{2034106}{t^5} + \frac{1046676ef}{t^5} - \frac{1901560l}{t^5} - \frac{2570432}{t^4} -$$

$$\frac{1116500ef}{t^4} + \frac{2163176l}{t^4} + \frac{2956518}{t^3} + \frac{1007020ef}{t^3} - \frac{2123520l}{t^3} - \frac{3099338}{t^2} - \frac{704708ef}{t^2} + \frac{1711728l}{t^2} +$$

$$\frac{2958726}{t} + \frac{253564ef}{t} - \frac{958272l}{t} + 2000454t - 704708eft + 958272lt - 1387610t^2 + 1007020eft^2 -$$

$$1711728lt^2 + 832998t^3 - 1116500eft^3 + 2123520lt^3 - 407256t^4 + 1046676eft^4 - 2163176lt^4 +$$

$$132546t^5 - 854884eft^5 + 1901560lt^5 + 9557t^6 + 614936eft^6 - 1469820lt^6 - 59220t^7 - 390040eft^7 +$$

$$1004976lt^7 + 58859t^8 + 216948eft^8 - 606988lt^8 - 40498t^9 - 104604eft^9 + 321552lt^9 + 22001t^{10} +$$

$$42936eft^{10} - 147540lt^{10} - 9704t^{11} - 14616eft^{11} + 57552lt^{11} + 3455t^{12} + 3972eft^{12} - 18588lt^{12} -$$

$$966t^{13} - 812eft^{13} + 4784lt^{13} + 201t^{14} + 112eft^{14} - 924lt^{14} - 28t^{15} - 8eft^{15} + 120lt^{15} + 2t^{16} - 8lt^{16} \left. \right\}$$

NfeDP: called 100 times, time in 5.612/5.612

Parents:

(100) 5.612/ 5.612 under Nfe

NlxP: called 200 times, time in 3.997/4.949

Parents:

(200) 3.997/ 4.949 under Nlx

Children:

(200) 0.952/ 0.952 above DP

DP: called 200 times, time in 0.952/0.952

Parents:

(200) 0.952/ 0.952 under NlxP

NfeΛ: called 100 times, time in 0.391/0.391

Parents:

(100) 0.391/ 0.391 under Nfe

NlxQ: called 200 times, time in 0.19/0.19

Parents:

(200) 0.190/ 0.190 under Nlx

NfeQ: called 100 times, time in 0.127/0.127

Parents:

(100) 0.127/ 0.127 under Nfe

m: called 100 times, time in 0.106/11.453

Parents:

(100) 0.106/ 11.450 under z

Children:

(100) 0.000/ 0.000 above CF

(100) 0.016/ 6.161 above Nfe

(200) 0.047/ 5.186 above Nlx

Nlx: called 200 times, time in 0.047/5.186

Parents:

(200) 0.047/ 5.186 under m

Children:

(200) 0.000/ 0.000 above NlxL

(200) 3.997/ 4.949 above NlxP

(200) 0.190/ 0.190 above NlxQ

z: called 1 times, time in 0.031/11.515

Parents:

(1) 0.031/ 11.520 under ProfileRoot

```

Children:
  ( 80) 0.031/ 0.031 above CF
  ( 100) 0.106/ 11.450 above m
CF: called 180 times, time in 0.031/0.031
Parents:
  ( 100) 0.000/ 0.000 under m
  ( 80) 0.031/ 0.031 under z
Nfe: called 100 times, time in 0.016/6.161
Parents:
  ( 100) 0.016/ 6.161 under m
Children:
  ( 100) 5.612/ 5.612 above NfeDP
  ( 100) 0.127/ 0.127 above NfeQ
  ( 100) 0.391/ 0.391 above Nfe $\Delta$ 
  ( 100) 0.015/ 0.015 above Nfe $\omega$ 
Nfe $\omega$ : called 100 times, time in 0.015/0.015
Parents:
  ( 100) 0.015/ 0.015 under Nfe
ProfileRoot: called 0 times, time in 0./0.
Children:
  ( 1) 0.031/ 11.520 above z
NlxL: called 200 times, time in 0./0.
Parents:
  ( 200) 0.000/ 0.000 under Nlx

```

Testing $T_{9,5}$...

```

BeginProfile[];
Timing[Z[TorusKnot[9, 5]]]
EndProfile[];
PrintProfile[]

```