Sensitivity indexes of the test function with a free coefficient (c) as exponent

Test function

```
f1[W_, X_, Z_] := a * Z * X + b * W * X^(c)
```

W,X,Z: U[1.5, 2.5]

P:

```
ln[2]:= 1 = 1.5;

h = 2.5;

p = 1/(h-1);
```

Computation of f for f1:

```
 \begin{split} & \text{In}[5] \coloneqq \text{f0} = \text{Simplify}[\text{p}^3 * \text{Integrate}[\text{f1}[\text{W}, \text{X}, \text{Z}], \{\text{W}, \text{1}, \text{h}\}, \{\text{X}, \text{1}, \text{h}\}, \{\text{Z}, \text{1}, \text{h}\}]] \\ & \text{Out}[5] = 4. \text{ a} + \frac{\left(-3. \times 1.5^c + 5. \times 2.5^c\right) \text{ b}}{1. + \text{c}} \\ & \text{In}[6] \coloneqq \text{fw} = \text{Simplify}[\text{p}^2 * \text{Integrate}[\text{f1}[\text{W}, \text{X}, \text{Z}], \{\text{X}, \text{1}, \text{h}\}, \{\text{Z}, \text{1}, \text{h}\}] - \text{f0}] \\ & \text{Out}[6] \vDash \frac{\text{b} \left(3. \times 1.5^c - 5. \times 2.5^c + \left(-1.5 \times 1.5^c + 2.5^{1+c}\right) \text{ W}\right)}{1. + \text{c}} \\ & \text{In}[7] \coloneqq \text{fx} = \text{Simplify}[\text{p}^2 * \text{Integrate}[\text{f1}[\text{W}, \text{X}, \text{Z}], \{\text{W}, \text{1}, \text{h}\}, \{\text{Z}, \text{1}, \text{h}\}] - \text{f0}] \\ & \text{Out}[7] \coloneqq -4. \text{ a} + \frac{\left(3. \times 1.5^c - 5. \times 2.5^c\right) \text{ b}}{1. + \text{c}} + 2. \text{ a} \times 2. \text{ b} \times 2. \text{ b}
```

Computation of Vt, Vw, Vx, Vz...

```
 \begin{aligned} & \text{In} [13] = \  \, \text{vt} = \text{Simplify} \big[ \text{p} ^3 * \text{Integrate} \big[ \left( \text{f1} [\text{W}, \text{X}, \text{Z}] - \text{f0} \right) ^2 , \left\{ \text{W}, \text{I}, \text{ h} \right\}, \left\{ \text{X}, \text{I}, \text{ h} \right\}, \left\{ \text{Z}, \text{I}, \text{ h} \right\} \big] \big] \\ & \text{Out} [13] = \  \, \left( \text{a b } \left( 15. \times 1.5^c - 15. \times 2.5^c + \left( 78. \times 1.5^c - 70. \times 2.5^c \right) \text{ c} + \left( 150. \times 1.5^c - 110. \times 2.5^c \right) \text{ c}^2 + \left( 132. \times 1.5^c - 60. \times 2.5^c \right) \text{ c}^3 + \left( 51. \times 1.5^c + 5. \times 2.5^c \right) \text{ c}^4 + \left( 6. \times 1.5^c + 10. \times 2.5^c \right) \text{ c}^5 \right) + \\ & \text{a}^2 \left( 0.673611 + 4.37847 \text{ c} + 11.4514 \text{ c}^2 + 15.4931 \text{ c}^3 + 11.4514 \text{ c}^4 + 4.37847 \text{ c}^5 + 0.673611 \text{ c}^6 \right) + \\ & \text{b}^2 \left( 30. \times 3.75^c - 15.125 \text{ e}^{0.81093 \text{ c}} - 14.7917 \text{ e}^{1.83258 \text{ c}} + \right. \\ & \text{c}^2 \left( 210. \times 3.75^c - 68.0625 \text{ e}^{0.81093 \text{ c}} - 93.3333 \text{ e}^{1.83258 \text{ c}} \right) + \\ & \text{c} \left( 135. \times 3.75^c - 68.0625 \text{ e}^{0.81093 \text{ c}} - 66.5625 \text{ e}^{1.83258 \text{ c}} \right) + \\ & \text{c}^3 \left( 135. \times 3.75^c - 83.375 \text{ e}^{0.81093 \text{ c}} - 41.0417 \text{ e}^{1.83258 \text{ c}} \right) + \\ & \text{c}^5 \left( -3.0625 \text{ e}^{0.81093 \text{ c}} + 5.10417 \text{ e}^{1.83258 \text{ c}} \right) + \\ & \text{c}^4 \left( 30. \times 3.75^c - 27.375 \text{ e}^{0.81093 \text{ c}} + 5.625 \text{ e}^{1.83258 \text{ c}} \right) \right) \right) \bigg/ \left( \left( 1. + \text{c} \right)^4 \left( 2. + \text{c} \right) \left( 0.5 + 1. \text{ c} \right) \right) \\ & \text{In} [16] = \text{ VW} = \text{Simplify} \big[ \text{p * Integrate} \big[ \left( \text{fW} \right) ^2, \left\{ \text{W, I, h} \right\} \big] \big] \\ & \text{Out} [16] = \left( 1. \left( -9. \left( 1. \times 1.5^c - 0.75 \times 1.5^c + 1.25 \times 2.5^c - 1.66667 \times 2.5^c \right)^3 + \\ & \text{9.} \left( 1. \times 1.5^c - 1.25 \times 1.5^c + 2.08333 \times 2.5^c - 1.66667 \times 2.5^c \right)^3 \right) \\ & \text{b}^2 \right) \bigg/ \left( \left( -1.5 \times 1.5^c + 2.5^{1+c} \right) \left( 1. + \text{c} \right)^2 \right) \end{aligned}
```

```
lo[17]:= vx = Simplify[p * Integrate[(fx)^2, {X, 1, h}]]
 Out[17]= (a b (-6.03961 \times 10<sup>-14</sup> \times 1.5<sup>c</sup> + 15. \times 1.5<sup>c</sup> - 15. \times 2.5<sup>c</sup> + 1.04213 \times 10<sup>-13</sup> \times 2.5<sup>c</sup> +
                                                                                                                 \left(-2.55795\times10^{-13}\times1.5^{c}+63.\times1.5^{c}-55.\times2.5^{c}+4.92643\times10^{-13}\times2.5^{c}\right) c +
                                                                                                                  \left(-3.69482\times10^{-13}\times1.5^{c}+87.\times1.5^{c}-55.\times2.5^{c}+7.95808\times10^{-13}\times2.5^{c}\right) c<sup>2</sup> +
                                                                                                                 \left(-2.55795\times10^{-13}\times1.5^{c}+45.\times1.5^{c}-5.\times2.5^{c}+4.92643\times10^{-13}\times2.5^{c}\right) c<sup>3</sup> +
                                                                                                                 \left(-6.03961\times10^{-14}\times1.5^{c}+6.\times1.5^{c}+10.\times2.5^{c}+1.04213\times10^{-13}\times2.5^{c}\right) c<sup>4</sup> +
                                                                                a^{2} (0.333333 + 1.83333 c + 3.83333 c^{2} + 3.83333 c^{3} + 1.83333 c^{4} + 0.3333333 c^{5}) +
                                                                                b^2 \left(-18. \times 2.25^c + 30. \times 3.75^c - 30. \times 3.75^c + 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 3.75^c + 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 3.75^c - 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 3.75^c - 50. \times 6.25^c + 9.\ \text{e}^{0.81093\ c} - 30. \times 6.25^c + 9.\ \text{e}^{0.81093\
                                                                                                              6. e^{0.81093 \text{ c}} + 10. e^{1.83258 \text{ c}} + 25. e^{1.83258 \text{ c}} + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{1.83258 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{1.83258 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right) + c^4 \left(-3. e^{0.81093 \text{ c}} + 5. e^{0.81093 \text{ c}}\right)
                                                                                                             c^{3} \left(-18.\times2.25^{c}+30.\times3.75^{c}-30.\times3.75^{c}+30.\times3.75^{c}-50.\times6.25^{c}+9. e^{0.81093} c^{2}-6.81093
                                                                                                                                           15. \ e^{0.81093 \ c} + 25. \ e^{1.83258 \ c} + 25. \ e^{1.83258 \ c}) + c \ \left(-63. \times 2.25^c + 105. \times 3.75^c - 105. \times 3.75^c + 105. \times 3.75^c
                                                                                                                                          105.\times3.75^{c}-175.\times6.25^{c}+31.5\;\text{e}^{0.81093\;c}-21.\;\text{e}^{0.81093\;c}+35.\;\text{e}^{1.83258\;c}+87.5\;\text{e}^{1.83258\;c})
                                                                                                             27. e^{0.81093 c} + 45. e^{1.83258 c} + 87.5 e^{1.83258 c})))/((1.+c)^3 (2.+c) (0.5+1.c))
      lo[18]:= vz = Simplify[p * Integrate[(fz)^2, {Z, 1, h}]]
 Out[18]= 0.3333333 a^2
     log[19] = vwx = Simplify[p^2 * Integrate[(fwx)^2, \{W, 1, h\}, \{X, 1, h\}]]
 \text{Out} \texttt{[19]=} - \Big( \big( 18.375 \, b^2 \, \big( 0.5 \times 2.25^c - 0.833333 \times 3.75^c + 1.64966 \times 3.75^c - 0.833333 \times 3.75^c + 1.38889 \times 6.25^c - 0.833333 \times 3.75^c + 0.83333 \times 3.75^c +
                                                                                                                        0.241497 \; \mathrm{e}^{0.81093 \; c} \; - \; 0.25 \; \mathrm{e}^{0.81093 \; c} \; - \; 0.694444 \; \mathrm{e}^{1.83258 \; c} \; - \; 0.685941 \; \mathrm{e}^{1.83258 \; c} \; + \; 0.685941 \; \mathrm{e}^{1.83258 \; c} \; - \; 0.685941 \; \mathrm{e}^{1.83258 \; c} \; 
                                                                                                                        c(1. \times 2.25^{\circ} - 1.66667 \times 3.75^{\circ} + 3.29932 \times 3.75^{\circ} - 1.66667 \times 3.75^{\circ} + 2.77778 \times 6.25^{\circ} - 1.66667 \times 3.75^{\circ})
                                                                                                                                                      0.482993 e^{0.81093 c} - 0.5 e^{0.81093 c} - 1.38889 e^{1.83258 c} - 1.37188 e^{1.83258 c} +
                                                                                                                        c^{2} (0.00340136 e^{0.81093 c} - 0.00566893 e^{1.83258 c}))) / ((1. + c)<sup>2</sup> (0.5 + 1. c))
     log(20) = vwz = Simplify[p^2 * Integrate[(fwz)^2, {W, 1, h}, {Z, 1, h}]]
     log[21] = vxz = Simplify[p^2 * Integrate[(fxz)^2, {X, 1, h}, {Z, 1, h}]]
Out[21]= \frac{0.00694444 a^2 (1. + 1. c)^3}{(1. + c)^3}
```

Computation of Sw, Sx, Sz...

```
ln[29]:= SW = VW / Vt
Out[29]= (1. (-9. (1. \times 1.5^{c} - 0.75 \times 1.5^{c} + 1.25 \times 2.5^{c} - 1.66667 \times 2.5^{c})^{3} +
                                                                                                                          9. (1. \times 1.5^{\circ} - 1.25 \times 1.5^{\circ} + 2.08333 \times 2.5^{\circ} - 1.66667 \times 2.5^{\circ})^{3}
                                                                                                b^{2}(1.+c)^{2}(2.+c)(0.5+1.c) / ((-1.5\times1.5^{c}+2.5^{1+c})
                                                                                                     (a b (15. \times 1.5^{c} - 15. \times 2.5^{c} + (78. \times 1.5^{c} - 70. \times 2.5^{c}) c + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 1.5^{c}) c^{2
                                                                                                                                                                   (132. \times 1.5^{c} - 60. \times 2.5^{c}) c<sup>3</sup> + (51. \times 1.5^{c} + 5. \times 2.5^{c}) c<sup>4</sup> + (6. \times 1.5^{c} + 10. \times 2.5^{c}) c<sup>5</sup>) +
                                                                                                                          a^2 \left(0.673611 + 4.37847 \, c + 11.4514 \, c^2 + 15.4931 \, c^3 + 11.4514 \, c^4 + 4.37847 \, c^5 + 0.673611 \, c^6\right) + 1.4514 \, c^4 + 1.4514 \, c^4 + 1.4514 \, c^5 + 0.673611 \, c^6\right) + 1.4514 \, c^6 + 1.4514
                                                                                                                          b^2 \left(30.\times3.75^c - 15.125 \; \text{e}^{0.81093 \; \text{c}} - 14.7917 \; \text{e}^{1.83258 \; \text{c}} + c^2 \; \left(210.\times3.75^c - 112. \; \text{e}^{0.81093 \; \text{c}} - 112.\right) \right)
                                                                                                                                                                                                    93.3333 e^{1.83258 c}) + c (135. \times 3.75^{c} - 68.0625 e^{0.81093 c} - 66.5625 e^{1.83258 c}) +
                                                                                                                                                                c^{3} \, \left(135.\times3.75^{c} - 83.375 \, \mathrm{e}^{0.81093 \, c} - 41.0417 \, \mathrm{e}^{1.83258 \, c}\right) \, + \, c^{5} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c} + 1.0417 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c} + 1.0417 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c} + 1.0417 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c} + 1.0417 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c} + 1.0417 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c^{1} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c}\right) + \, c
                                                                                                                                                                                                    5.10417 e^{1.83258 c} + c^4 (30. \times 3.75^c - 27.375 e^{0.81093 c} + 5.625 e^{1.83258 c}))))
    ln[30]:= sx = vx / vt
\text{Out} \texttt{[30]=} \quad \left( \text{ $(1.+c)$ } \right) \quad \left( \text{a b } \left( -6.03961 \times 10^{-14} \times 1.5^c + 15. \times 1.5^c - 15. \times 2.5^c + 1.04213 \times 10^{-13} \times 2.5^c + 1.04213 \times 10^{-14} \times 1.5^c + 1.04213 \times 10^{-14} \times \times 1
                                                                                                                                                                       \left(-2.55795 \times 10^{-13} \times 1.5^{c} + 63. \times 1.5^{c} - 55. \times 2.5^{c} + 4.92643 \times 10^{-13} \times 2.5^{c}\right) c + 63. \times 10^{-13} \times 1.5^{c} + 63. \times 1.5^{c} = 10^{-13} \times 1.5^{c} + 10^{-13} \times
                                                                                                                                                                       \left(-3.69482\times10^{-13}\times1.5^{c}+87.\times1.5^{c}-55.\times2.5^{c}+7.95808\times10^{-13}\times2.5^{c}\right) c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c^{2}+c
                                                                                                                                                                       (-2.55795 \times 10^{-13} \times 1.5^{c} + 45. \times 1.5^{c} - 5. \times 2.5^{c} + 4.92643 \times 10^{-13} \times 2.5^{c}) c^{3} +
                                                                                                                                                                   \left(-6.03961\times10^{-14}\times1.5^{c}+6.\times1.5^{c}+10.\times2.5^{c}+1.04213\times10^{-13}\times2.5^{c}\right)~c^{4}\right)~+
                                                                                                                          a^{2} (0.333333 + 1.83333 c + 3.83333 c^{2} + 3.83333 c^{3} + 1.83333 c^{4} + 0.333333 c^{5}) +
                                                                                                                          b^{2} (-18. \times 2.25<sup>c</sup> + 30. \times 3.75<sup>c</sup> - 30. \times 3.75<sup>c</sup> + 30. \times 3.75<sup>c</sup> - 50. \times 6.25<sup>c</sup> + 9. e^{0.81093} c -
                                                                                                                                                                6. e^{0.81093} c + 10. e^{1.83258} c + 25. e^{1.83258} c + e^{4} (-3. e^{0.81093} c + 5. e^{1.83258} c) +
                                                                                                                                                                c^{3} (-18. \times 2.25<sup>c</sup> + 30. \times 3.75<sup>c</sup> - 30. \times 3.75<sup>c</sup> + 30. \times 3.75<sup>c</sup> - 50. \times 6.25<sup>c</sup> +
                                                                                                                                                                                                    9. e^{0.81093 \text{ c}} - 15. e^{0.81093 \text{ c}} + 25. e^{1.83258 \text{ c}} + 25. e^{1.83258 \text{ c}} + 25.
                                                                                                                                                                c \left(-63. \times 2.25^{c} + 105. \times 3.75^{c} - 105. \times 3.75^{c} + 105. \times 3.75^{c} - 175. \times 6.25^{c} + 105. \times 3.75^{c} - 175. \times 6.25^{c} + 105. \times 3.75^{c} - 175. \times 6.25^{c} + 105. \times 3.75^{c} - 105. \times 3.75^{c} - 105. \times 3.75^{c} + 105. \times 3.75^{c} - 105. \times 3.75^{c} - 105. \times 3.75^{c} + 105. \times 3.75^{c} - 105. \times 3.75^{c} + 105. \times 3.75^{c} - 105. \times
                                                                                                                                                                                                    31.5 e^{0.81093 \, c} - 21. e^{0.81093 \, c} + 35. e^{1.83258 \, c} + 87.5 e^{1.83258 \, c}) +
                                                                                                                                                              c^{2} (-63. × 2.25° + 105. × 3.75° - 105. × 3.75° + 105. × 3.75° - 175. × 6.25° +
                                                                                                                                                                                                    31.5 e^{0.81093 c} - 27. e^{0.81093 c} + 45. e^{1.83258 c} + 87.5 e^{1.83258 c} ) ) ) /
                                                                             (a b (15. \times 1.5^{c} - 15. \times 2.5^{c} + (78. \times 1.5^{c} - 70. \times 2.5^{c}) c + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c<sup>2</sup> +
                                                                                                                                           (132. \times 1.5^{\circ} - 60. \times 2.5^{\circ}) c^{3} + (51. \times 1.5^{\circ} + 5. \times 2.5^{\circ}) c^{4} + (6. \times 1.5^{\circ} + 10. \times 2.5^{\circ}) c^{5}) + (6. \times 1.5^{\circ} + 10. \times 2.5^{\circ}) c^{5}
                                                                                                  a^{2} \, \left( \textbf{0.673611} \, + \, \textbf{4.37847} \, \, \textbf{c} \, + \, \textbf{11.4514} \, \, \textbf{c}^{2} \, + \, \textbf{15.4931} \, \, \textbf{c}^{3} \, + \, \textbf{11.4514} \, \, \textbf{c}^{4} \, + \, \textbf{4.37847} \, \, \textbf{c}^{5} \, + \, \textbf{0.673611} \, \, \textbf{c}^{6} \right) \, + \, \textbf{11.4514} \, \, \textbf{c}^{2} \, + \, \textbf{11.4514} \, \, \textbf{c}^{2} \, + \, \textbf{11.4514} \, \, \textbf{c}^{4} \, + \, \textbf{4.37847} \, \, \textbf{c}^{5} \, + \, \textbf{0.673611} \, \, \textbf{c}^{6} \right) \, + \, \textbf{11.4514} \, \, \textbf{c}^{2} \, + \, \textbf
                                                                                                                  (30. \times 3.75^{\circ} - 15.125 e^{0.81093 \circ} - 14.7917 e^{1.83258 \circ} +
                                                                                                                                       c^{2} (210. \times 3.75° - 112. e^{0.81093} c - 93.3333 e^{1.83258} c) +
                                                                                                                                       c (135. \times 3.75^{\circ} - 68.0625 e^{0.81093 \circ} - 66.5625 e^{1.83258 \circ}) +
                                                                                                                                      c^{3} (135. \times 3.75<sup>c</sup> - 83.375 e^{0.81093 c} - 41.0417 e^{1.83258 c}) +
                                                                                                                                      c^{5} \left(-3.0625 e^{0.81093 c} + 5.10417 e^{1.83258 c}\right) +
                                                                                                                                       c^{4} (30. × 3.75° – 27.375 e^{0.81093 c} + 5.625 e^{1.83258 c})))
```

```
ln[31]:= sz = vz / vt
(a b (15. \times 1.5^{c} - 15. \times 2.5^{c} + (78. \times 1.5^{c} - 70. \times 2.5^{c}) c + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2
                                                                                                                                               (132. \times 1.5^{c} - 60. \times 2.5^{c}) c^{3} + (51. \times 1.5^{c} + 5. \times 2.5^{c}) c^{4} + (6. \times 1.5^{c} + 10. \times 2.5^{c}) c^{5}) + (6. \times 1.5^{c} + 10. \times 2.5^{c}) c^{5}) c^{5}
                                                                                                     a^2 \; \left( 0.673611 + 4.37847 \, c + 11.4514 \, c^2 + 15.4931 \, c^3 + 11.4514 \, c^4 + 4.37847 \, c^5 + 0.673611 \, c^6 \right) \; + \; 10.4514 \, c^2 + 10.4514 \, c^3 + 10.4514 \, c^4 + 10.4514 \, c^4 + 10.4514 \, c^5 + 10.4514 \, c^6 + 10
                                                                                                     b^2 (30. \times 3.75^{c} - 15.125 e^{0.81093 c} - 14.7917 e^{1.83258 c} +
                                                                                                                                            c^{2} (210. \times 3.75° - 112. e^{0.81093} c - 93.3333 e^{1.83258} c) +
                                                                                                                                            c (135. \times 3.75^{c} - 68.0625 e^{0.81093 c} - 66.5625 e^{1.83258 c}) +
                                                                                                                                            c^{3} (135. \times 3.75<sup>c</sup> - 83.375 e^{0.81093} c - 41.0417 e^{1.83258} c) + c^{5}
                                                                                                                                                            (-3.0625 e^{0.81093 c} + 5.10417 e^{1.83258 c}) + c^4 (30. \times 3.75^c - 27.375 e^{0.81093 c} + 5.625 e^{1.83258 c})))
     In[32]:= swx = vwx / vt
\text{Out} \text{[32]=} -\left(\left(18.375 \text{ b}^2 \left(1.+c\right)^2 \left(2.+c\right) \right) \left(0.5 \times 2.25^c - 0.833333 \times 3.75^c + 1.64966 \times 3.75^c - 0.833333 \times 3.75^c + 1.64966 \times
                                                                                                                                                       1.38889 \times 6.25^{c} - 0.241497 \ e^{0.81093 \ c} - 0.25 \ e^{0.81093 \ c} - 0.694444 \ e^{1.83258 \ c} - 0.685941 \ e^{1.83258 \ c} + 0.83258 \ c + 0.83258
                                                                                                                                                       c (1. \times 2.25^{c} - 1.66667 \times 3.75^{c} + 3.29932 \times 3.75^{c} - 1.66667 \times 3.75^{c} + 2.77778 \times 6.25^{c} + 2.777778 \times 6.25^{c} + 2.777778 \times 6.25^{c} + 2.7777778 \times 6.25^{c} + 2.7777778 \times 6.25^{c} + 2.7777778 \times 6.25^{c} + 2
                                                                                                                                                                                            0.482993 e^{0.81093 c} - 0.5 e^{0.81093 c} - 1.38889 e^{1.83258 c} - 1.37188 e^{1.83258 c} + 1.37188 e^{1.83258 c}
                                                                                                                                                      c^2 \, \left( \textbf{0.00340136} \, \, \mathbb{e}^{\textbf{0.81093} \, \, c} \, - \, \textbf{0.00566893} \, \, \mathbb{e}^{\textbf{1.83258} \, \, c} \, \right) \, \right) \, \, \middle/ \,
                                                                                                          (a b (15. \times 1.5^{c} - 15. \times 2.5^{c} + (78. \times 1.5^{c} - 70. \times 2.5^{c}) c + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2
                                                                                                                                                                        \left(132.\times1.5^{c}-60.\times2.5^{c}\right)\ c^{3}+\left(51.\times1.5^{c}+5.\times2.5^{c}\right)\ c^{4}+\left(6.\times1.5^{c}+10.\times2.5^{c}\right)\ c^{5}\right)\ +
                                                                                                                              a^2 \left(0.673611 + 4.37847 \, c + 11.4514 \, c^2 + 15.4931 \, c^3 + 11.4514 \, c^4 + 4.37847 \, c^5 + 0.673611 \, c^6\right) + 1.4514 \, c^4 + 1.4514 \, c^4 + 1.4514 \, c^5 + 0.673611 \, c^6\right) + 1.4514 \, c^6 + 1.4514
                                                                                                                              b^2 (30. × 3.75° – 15.125 e^{0.81093} ° – 14.7917 e^{1.83258} ° +
                                                                                                                                                                     c^{2} (210. \times 3.75° - 112. e^{0.81093} c - 93.3333 e^{1.83258} c) +
                                                                                                                                                                     c (135. \times 3.75^{\circ} - 68.0625 e^{0.81093 \circ} - 66.5625 e^{1.83258 \circ}) +
                                                                                                                                                                     c^{3} (135. \times 3.75° - 83.375 e^{0.81093} c - 41.0417 e^{1.83258} c) +
                                                                                                                                                                     c^{5} (-3.0625 e^{0.81093 c} + 5.10417 e^{1.83258 c}) +
                                                                                                                                                                     c^{4} (30. × 3.75° – 27.375 e^{0.81093} ° + 5.625 e^{1.83258} ° )))
     ln[33]:= SWZ = VWZ / Vt
Out[33]= 0.
     ln[34]:= sxz = vxz / vt
Out[34]= \left(0.006944444 \, a^2 \, \left(1.+c\right) \, \left(2.+c\right) \, \left(0.5+1.c\right) \, \left(1.+1.c\right)^3\right) / a^2
                                                                               (a b (15. \times 1.5^{c} - 15. \times 2.5^{c} + (78. \times 1.5^{c} - 70. \times 2.5^{c}) c + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2
                                                                                                                                               (132. \times 1.5^{c} - 60. \times 2.5^{c}) c^{3} + (51. \times 1.5^{c} + 5. \times 2.5^{c}) c^{4} + (6. \times 1.5^{c} + 10. \times 2.5^{c}) c^{5}) + (6. \times 1.5^{c} + 10. \times 2.5^{c}) c^{5}) c^{5}
                                                                                                     a^2 \, \left( \textbf{0.673611} + \textbf{4.37847} \, \, \text{c} + \textbf{11.4514} \, \, \text{c}^2 + \textbf{15.4931} \, \, \text{c}^3 + \textbf{11.4514} \, \, \text{c}^4 + \textbf{4.37847} \, \, \text{c}^5 + \textbf{0.673611} \, \, \text{c}^6 \right) \, + \, \textbf{11.4514} \, \, \text{c}^4 + \textbf{11.4514} \, \, \text{c}^6 +
                                                                                                     b^2 (30. \times 3.75^c - 15.125 e^{0.81093 c} - 14.7917 e^{1.83258 c} +
                                                                                                                                            c^{2} (210. \times 3.75° - 112. e^{0.81093} c - 93.3333 e^{1.83258} c) +
                                                                                                                                          c (135. \times 3.75^{\circ} - 68.0625 e^{0.81093 \circ} - 66.5625 e^{1.83258 \circ}) +
                                                                                                                                            c^{3} \, \left(135. \times 3.75^{c} - 83.375 \; \text{e}^{0.81093 \; c} - 41.0417 \; \text{e}^{1.83258 \; c} \right) \, + c^{5}
                                                                                                                                                           \left(-3.0625\,\mathrm{e}^{0.81093\,\mathrm{c}} + 5.10417\,\mathrm{e}^{1.83258\,\mathrm{c}}\right) + \mathrm{c}^4\,\left(30.\times3.75^\mathrm{c} - 27.375\,\mathrm{e}^{0.81093\,\mathrm{c}} + 5.625\,\mathrm{e}^{1.83258\,\mathrm{c}}\right)\right)
      ln[35]:= swxz = Simplify[(vt - vw - vx - vz - vwx - vwz - vxz)/vt]
Out[35]= \left(1. + c\right)^4 \left(2. + c\right) \left(0.5 + 1. c\right)
```

```
-\,\textbf{0.333333}\,\,\textbf{a}^{2}\,-\,\left(\textbf{1.}\,\,\left(-\,\textbf{9.}\,\,\left(\textbf{1.}\,\times\,\textbf{1.5}^{c}\,-\,\textbf{0.75}\,\times\,\textbf{1.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,-\,\textbf{1.66667}\,\times\,\textbf{2.5}^{c}\right)^{\,3}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{1.25}\,\times\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2.5}^{c}\,+\,\textbf{2
                                                                                         9. (1. \times 1.5^{\circ} - 1.25 \times 1.5^{\circ} + 2.08333 \times 2.5^{\circ} - 1.66667 \times 2.5^{\circ})^{3}) b^{2})
                                       \left( \left( -1.5 \times 1.5^{c} + 2.5^{1+c} \right) \left( 1. + c \right)^{2} \right) - \frac{0.00694444 a^{2} \left( 1. + 1. c \right)^{3}}{\left( 1. + c \right)^{3}} + \frac{1.5^{c} + 2.5^{1+c}}{1.5^{c} + 2.5^{1+c}} + \frac{1.5^{c}}{1.5^{c} + 2.5^{1+
                             (18.375 \text{ b}^2 \text{ } (0.5 \times 2.25^{\text{c}} - 0.833333 \times 3.75^{\text{c}} + 1.64966 \times 3.75^{\text{c}} - 0.833333 \times 3.75^{\text{c}} + 1.38889 \times 3.75^{\text{c}})
                                                                                                     6.25^{\circ} - 0.241497 \, \mathrm{e}^{0.81093 \, c} - 0.25 \, \mathrm{e}^{0.81093 \, c} - 0.694444 \, \mathrm{e}^{1.83258 \, c} - 0.685941 \, \mathrm{e}^{1.83258 \, c} + 0.685941 \, \mathrm{e}^{1.83
                                                                                           c (1. \times 2.25^{\circ} - 1.66667 \times 3.75^{\circ} + 3.29932 \times 3.75^{\circ} - 1.66667 \times 3.75^{\circ} + 2.77778 \times 6.25^{\circ} + 2.777778 \times 6.25^{\circ} + 2.
                                                                                                                                 0.482993 e^{0.81093 c} - 0.5 e^{0.81093 c} - 1.38889 e^{1.83258 c} - 1.37188 e^{1.83258 c} +
                                                                                         (a b (6.03961 \times 10^{-14} \times 1.5^{\circ} - 15. \times 1.5^{\circ} + 15. \times 2.5^{\circ} - 1.04213 \times 10^{-13} \times 2.5^{\circ} + 1.04213 \times 10^{-13} \times 1.5^{\circ} + 1.04213 \times 10^{-13} \times \times 10^{-13
                                                                                                            (2.55795 \times 10^{-13} \times 1.5^{\circ} - 63. \times 1.5^{\circ} + 55. \times 2.5^{\circ} - 4.92643 \times 10^{-13} \times 2.5^{\circ}) c +
                                                                                                              (3.69482 \times 10^{-13} \times 1.5^{\circ} - 87. \times 1.5^{\circ} + 55. \times 2.5^{\circ} - 7.95808 \times 10^{-13} \times 2.5^{\circ}) c<sup>2</sup> +
                                                                                                              (2.55795 \times 10^{-13} \times 1.5^{\circ} - 45. \times 1.5^{\circ} + 5. \times 2.5^{\circ} - 4.92643 \times 10^{-13} \times 2.5^{\circ}) c^{3} +
                                                                                                            (6.03961 \times 10^{-14} \times 1.5^{\circ} - 6. \times 1.5^{\circ} - 10. \times 2.5^{\circ} - 1.04213 \times 10^{-13} \times 2.5^{\circ}) c^{4}) +
                                                                 a^{2} \left(-0.333333 - 1.83333 c - 3.83333 c^{2} - 3.83333 c^{3} - 1.83333 c^{4} - 0.3333333 c^{5} \right) + a^{2} \left(-0.3333333 - 1.833333 c - 3.833333 c^{2} - 3.833333 c^{3} - 1.833333 c^{4} - 0.3333333 c^{5} \right)
                                                                 b^2 (18. \times 2.25^c - 30. \times 3.75^c + 30. \times 3.75^c - 30. \times 3.75^c + 50. \times 6.25^c - 9. e^{0.81093 c} +
                                                                                                       6. e^{0.81093} c -10. e^{1.83258} c -25. e^{1.83258} c + c^4 (3. e^{0.81093} c -5. e^{1.83258} c) +
                                                                                                       c^{2} (63. × 2.25° – 105. × 3.75° + 105. × 3.75° – 105. × 3.75° + 175. × 6.25° –
                                                                                                                                                31.5 e^{0.81093 c} + 27. e^{0.81093 c} - 45. e^{1.83258 c} - 87.5 e^{1.83258 c} + 
                                                                                                       c (63. \times 2.25^{\circ} - 105. \times 3.75^{\circ} + 105. \times 3.75^{\circ} - 105. \times 3.75^{\circ} + 175. \times 6.25^{\circ} - 105. \times 3.75^{\circ})
                                                                                                                                               31.5 e^{0.81093 c} + 21. e^{0.81093 c} - 35. e^{1.83258 c} - 87.5 e^{1.83258 c} + 21. e^{0.81093 c} + 21
                                                                                                       c^{3} (18. \times 2.25° - 30. \times 3.75° + 30. \times 3.75° - 30. \times 3.75° + 50. \times 6.25° - 9. e^{0.81093} ° +
                                                                                                                                           15. e^{0.81093 c} - 25. e^{1.83258 c} - 25. e^{1.83258 c}))) / ((1. + c)^3 (2. + c) (0.5 + 1. c)) +
                             (a b (15. \times 1.5^{c} - 15. \times 2.5^{c} + (78. \times 1.5^{c} - 70. \times 2.5^{c}) c + (150. \times 1.5^{c} - 110. \times 2.5^{c}) c<sup>2</sup> +
                                                                                                            (132. \times 1.5^{c} - 60. \times 2.5^{c}) c<sup>3</sup> + (51. \times 1.5^{c} + 5. \times 2.5^{c}) c<sup>4</sup> + (6. \times 1.5^{c} + 10. \times 2.5^{c}) c<sup>5</sup>) +
                                                                 a^{2} \, \left( \textbf{0.673611} \, + \, \textbf{4.37847} \, \, \textbf{c} \, + \, \textbf{11.4514} \, \, \textbf{c}^{2} \, + \, \textbf{15.4931} \, \, \textbf{c}^{3} \, + \, \textbf{11.4514} \, \, \textbf{c}^{4} \, + \, \textbf{4.37847} \, \, \textbf{c}^{5} \, + \, \textbf{0.673611} \, \, \textbf{c}^{6} \right) \, + \, \textbf{11.4514} \, \, \textbf{c}^{2} \, + \, \textbf{11.4514} \, \, \textbf{c}^{2} \, + \, \textbf{11.4514} \, \, \textbf{c}^{4} \, + \, \textbf{11.4514} \, \, \textbf{c}^{5} \, + \, \textbf{0.673611} \, \, \textbf{c}^{6} \right) \, + \, \textbf{11.4514} \, \, \textbf{c}^{2} \, + \, \textbf
                                                                 b^2 \left(30.\times3.75^{c} - 15.125 \; \text{e}^{0.81093 \; c} - 14.7917 \; \text{e}^{1.83258 \; c} + c^2 \; \left(210.\times3.75^{c} - 112. \; \text{e}^{0.81093 \; c} - 112.\right) \right)
                                                                                                                                             93.3333 \; \text{e}^{\textbf{1.83258}\; \text{c}} \; \big) \; + \; c \; \left(\textbf{135.} \times \textbf{3.75}^{\text{c}} \; - \; 68.0625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{1.83258}\; \text{c}} \right) \; + \; c \; \left(\textbf{135.} \times \textbf{3.75}^{\text{c}} \; - \; 68.0625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{1.83258}\; \text{c}} \right) \; + \; c \; \left(\textbf{135.} \times \textbf{3.75}^{\text{c}} \; - \; 68.0625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{1.83258}\; \text{c}} \right) \; + \; c \; \left(\textbf{135.} \times \textbf{3.75}^{\text{c}} \; - \; 68.0625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \right) \; + \; c \; \left(\textbf{135.} \times \textbf{3.75}^{\text{c}} \; - \; 68.0625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \right) \; + \; c \; \left(\textbf{135.} \times \textbf{3.75}^{\text{c}} \; - \; 68.0625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \right) \; + \; c \; \left(\textbf{135.} \times \textbf{3.75}^{\text{c}} \; - \; 68.0625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \right) \; + \; c \; \left(\textbf{135.} \times \textbf{3.75}^{\text{c}} \; - \; 68.0625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66.5625 \; \text{e}^{\textbf{0.81093}\; \text{c}} \; - \; 66
                                                                                                       c^{3} \, \left(135. \times 3.75^{c} - 83.375 \, \mathrm{e}^{0.81093 \, c} - 41.0417 \, \mathrm{e}^{1.83258 \, c} \right) \, + \, c^{5} \, \left(-3.0625 \, \mathrm{e}^{0.81093 \, c} + 1.0417 \, \mathrm{e}^{0.
                                                                                                                                               5.10417 e^{1.83258 c} + c^4 (30. \times 3.75<sup>c</sup> - 27.375 e^{0.81093 c} + 5.625 e^{1.83258 c}))) /
                                       ((1. + c)^4 (2. + c) (0.5 + 1. c))
                                           (78. \times 1.5^{c} - 70. \times 2.5^{c}) c +
                                           (150. \times 1.5^{c} - 110. \times 2.5^{c}) c^{2} +
                                            (132. \times 1.5^{c} - 60. \times 2.5^{c}) c^{3} +
                                           (51. \times 1.5^{c} + 5. \times 2.5^{c}) c^{4} +
                                           (6. \times 1.5^{c} + 10. \times 2.5^{c}) c^{5}) +
a^{2} (0.673611 + 4.37847 c + 11.4514 c^{2} + 15.4931 c^{3} + 11.4514 c^{4} +
                                       4.37847 c^5 + 0.673611 c^6) +
b^2 \ \left( \textbf{30.} \times \textbf{3.75}^c - \textbf{15.125} \ \mathbb{e}^{\textbf{0.81093} \ c} - \textbf{14.7917} \ \mathbb{e}^{\textbf{1.83258} \ c} \right. + \\
                                       c^{2} (210. \times 3.75<sup>c</sup> - 112. e^{0.81093 c} - 93.3333 e^{1.83258 c}) +
                                     c (135. \times 3.75^{\circ} - 68.0625 e^{0.81093 \circ} - 66.5625 e^{1.83258 \circ}) +
                                       c^{3} (135. \times 3.75° - 83.375 e^{0.81093} ° - 41.0417 e^{1.83258} ° ) +
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\begin{array}{c} c^{5} \left(-3.0625 \; \text{e}^{0.81093 \; \text{c}} + 5.10417 \; \text{e}^{1.83258 \; \text{c}} \right) \; + \\ c^{4} \left(30. \times 3.75^{c} - 27.375 \; \text{e}^{0.81093 \; \text{c}} + 5.625 \; \text{e}^{1.83258 \; \text{c}} \right) \right) \right) \end{array}
```