```
log_{0} = linear = GenDbx[2, {vz, -1877/100z-938/100vz+536/100u1+469/100u2, }]
                                                                                                           -2z-vz+1/2u^2,-z, {z, vz, u1, u2}, Lexicographic, {z, vz, u1, u2}];
    In[*]:= linear // Length
Out[ • ]= 14
    ln[\cdot]:= linear[[1]] / 10^{125} // N // Simplify
\textit{Out[*]} = -5.21132~\text{u1}^2 + 0.214624~\text{u2}^2 + 0.131419~\text{u2}~\text{vz} - 0.534143~\text{vz}^2 - 1.27244~\text{u2}~\text{z} - 1.27244~\text{u2}~\text{z} - 1.27244~\text{u2}~\text{u2}^2 - 1.27244~\text{u2}~\text{u2}^2 - 1.27244~\text{u2}^2 - 1.27244~
                                                                    0.979337 \text{ vz z} + 1.72909 \text{ z}^2 + \text{u1} \left( -3.80898 \text{ u2} + 5.83535 \text{ vz} + 15.0162 \text{ z} \right)
    In[*]:= linear[[2]] / 10<sup>125</sup> // N // Simplify
Out 0 = 1.31988 u1<sup>2</sup> - 0.770285 u2<sup>2</sup> + 0.569732 u2 vz + 0.041812 vz<sup>2</sup> +
                                                                    u1 (-0.139783 \text{ u2} - 0.831863 \text{ vz} - 2.80116 \text{ z}) + 3.30339 \text{ u2} \text{ z} - 0.188717 \text{ vz} \text{ z} - 1.72909 \text{ z}^2
    In[⊕]:= linear[[3]] / 10<sup>125</sup> // N // Simplify
Out_{e} = -5.94753 \text{ u} \cdot 1^2 + 0.222855 \text{ u} \cdot 2^2 + 0.246536 \text{ u} \cdot 2 \text{ v} \cdot z - 0.344033 \text{ v} \cdot z^2 - 1.2898 \text{ u} \cdot 2 \text{ z} - 0.246536 \text{ u} \cdot z - 0.344033 \text{ v} \cdot z^2 - 1.2898 \text{ u} \cdot z - 0.246536 \text{ u} \cdot z - 0.344033 \text{ v} \cdot z^2 - 1.2898 \text{ u} \cdot z - 0.344033 \text{ v} \cdot z 
                                                                    1.18894 vz z + 1.72909 z^2 + u1 \left(-3.92687 u^2 + 4.01903 vz + 14.9345 z\right)
   In[*]:= linear[[4]] / 10<sup>125</sup> // N // Simplify
Out 0 = 1.1565 \text{ u}^2 - 0.741834 \text{ u}^2 + 0.915108 \text{ u}^2 \text{ v}^2 + 0.0649169 \text{ 
                                                                    u1 (-0.040769 \text{ u2} - 1.24237 \text{ vz} - 2.88279 \text{ z}) + 3.28602 \text{ u2} \text{ z} - 0.398323 \text{ vz} \text{ z} - 1.72909 \text{ z}^2
    In[*]:= linear[[5]] / 10<sup>125</sup> // N // Simplify
Out 0 = 31.2101 \text{ u} + 1.3432 \text{ u} + 2.66012 \text{ u} + 2.660
                                                                    1.75886 vz z + 1.72909 z^2 + u1 \left(-27.1931 u^2 - 4.85767 vz + 19.0546 z\right)
    In[*]:= linear[[6]] / 10<sup>125</sup> // N // Simplify
Out_{e} = -0.220388 \text{ u}^2 - 0.123081 \text{ u}^2 + 0.259424 \text{ u}^2 \text{ v}^2 - 0.129193 \text{ v}^2 + 0.922806 \text{ u}^2 \text{ z} - 0.129193 \text{ v}^2 + 0.922806 \text{ u}^2 \text{ z} - 0.129193 \text{ v}^2 + 0.922806 \text{ u}^2 \text{ z} - 0.001919 \text{ u}^2 + 0.001919 \text{ v}^2 + 0.001919 \text{ u}^2 + 0.001919 \text{ v}^2 + 0.001919 \text{ u}^2 + 0.001919 \text{ 
                                                                    0.968237 \text{ vz z} - 1.72909 \text{ z}^2 + \text{u1} \left( -0.329764 \text{ u2} + 0.351377 \text{ vz} + 1.23731 \text{ z} \right)
    In[*]:= linear[[7]] / 10<sup>95</sup> // N // Simplify
Outfor 141.33 u1^2 + 0.390524 u2^2 + 1.49428 u2 vz + 1.42941 vz^2 - 1.64752 u2 z -
                                                                    3.15199 vz z + 1.73762 z^2 + u1 \left(-14.8584 \text{ u2} - 28.4266 \text{ vz} + 31.3419 \text{ z}\right)
    In[@]:= linear[[8]] / 10<sup>95</sup> // N // Simplify
Out 0 = 6.96035 \text{ u} + 4.66558 \text{ u}^2 + 0.627713 \text{ u}^2 + 0.0211133 \text{ v}^2 - 5.69457 \text{ u}^2 + 0.627713 \text{ u}^2 + 0.0211133 \text{ v}^2 - 5.69457 \text{ u}^2 + 0.627713 \text{ u}^2 + 0.0211133 \text{ v}^2 - 5.69457 \text{ u}^2 + 0.627713 \text{ u}^2 + 0.627713 \text{ u}^2 + 0.0211133 \text{ v}^2 - 5.69457 \text{ u}^2 + 0.627713 \text{ u}^2 + 0.62771
                                                                    0.383077 \text{ vz z} + 1.73762 \text{ z}^2 + \text{u1} \left(-11.3972 \text{ u2} - 0.766697 \text{ vz} + 6.95542 \text{ z}\right)
   In[*]:= linear[[9]] / 10<sup>95</sup> // N // Simplify
Out 0 = 0.252764 \text{ u1}^2 + 0.128432 \text{ u2}^2 - 0.207265 \text{ u2 vz} + 0.0836221 \text{ vz}^2 + 0
                                                                    u1 \left(0.360349\,\text{u2} - 0.290769\,\text{vz} - 1.32546\,\text{z}\right) - 0.944809\,\text{u2}\,\text{z} + 0.762374\,\text{vz}\,\text{z} + 1.73762\,\text{z}^2
    In[*]:= linear[[10]] / 10<sup>95</sup> // N // Simplify
Out 0 = 0.19406 \text{ u}^2 + 0.119119 \text{ u}^2 - 0.309912 \text{ u}^2 \text{ v}^2 + 0.201574 \text{ v}^
                                                                    u1 (0.304081 \text{ u2} - 0.395563 \text{ vz} - 1.16138 \text{ z}) - 0.909911 \text{ u2 z} + 1.18366 \text{ vz z} + 1.73762 \text{ z}^2
```

```
In[⊕]:= linear[[11]] // N // Simplify
\textit{Out[\@old Person} = 9.01861 \ u1 - 0.474074 \ u2 - 0.906985 \ vz + z
In[@]:= linear[[12]] // N // Simplify
Out[\circ]= 2.00142 u1 - 1.63861 u2 - 0.11023 vz + z
In[*]:= linear[[13]] // N // Simplify
Out[\ \circ\ ]=\ -\ 0.381399\ u1\ -\ 0.271868\ u2\ +\ 0.219373\ vz\ +\ z
In[*]:= linear[[14]] // N // Simplify
Out[\ \circ\ ]=\ -\ 0.334187\ u1-0.261826\ u2+0.340596\ vz+z
```