In[66]:=
```
ClearAll["Global`*"]
```

In[67]:=
```
lepkosc[r_, g_, rhok_, rhocieczy_, vgr_, R_] :=
 (2 * r ^ 2 * g * (rhok - rhocieczy)) / (9 * vgr * ((1 + (12 * r) / (5 * R))))
```

In[68]:=
```
lepkosc[r, g, rhok, rhocieczy, vgr, R]
```

Out[68]=

$$\frac{2\,g\,r^2\,(-\text{rhocieczy}+\text{rhok})}{9\left(1+\frac{12\,r}{5\,R}\right)\text{vgr}}$$

In[69]:=
```
pochodnar = D[lepkosc[r, g, rhok, rhocieczy, vgr, R], r]
```

Out[69]=

$$\frac{4\,g\,r\,(-\text{rhocieczy}+\text{rhok})}{9\left(1+\frac{12\,r}{5\,R}\right)\text{vgr}}-\frac{8\,g\,r^2\,(-\text{rhocieczy}+\text{rhok})}{15\left(1+\frac{12\,r}{5\,R}\right)^2 R\,\text{vgr}}$$

In[91]:=
```
partialEtaNaPartialr =
  pochodnar /. {r → 0.0015, rhok → 8000, rhocieczy → 1261, vgr → 0.04092, R → 0.02, g → 9.81};
```

In[83]:=
```
pochodnarhok = D[lepkosc[r, g, rhok, rhocieczy, vgr, R], rhok];
```

In[92]:=
```
partialEtaNaPartialrhok = pochodnarhok /.
   {r → 0.0015, rhok → 8000, rhocieczy → 1261, vgr → 0.04092, R → 0.02, g → 9.81};
```

In[84]:=
```
pochodnavgr = D[lepkosc[r, g, rhok, rhocieczy, vgr, R], vgr];
```

In[93]:=
```
partialEtaNaPartialvgr = pochodnavgr /.
   {r → 0.0015, rhok → 8000, rhocieczy → 1261, vgr → 0.04092, R → 0.02, g → 9.81};
```

In[85]:=
```
pochodnaR = D[lepkosc[r, g, rhok, rhocieczy, vgr, R], R];
```

In[94]:=
```
partialEtaNaPartialR =
  pochodnaR /. {r → 0.0015, rhok → 8000, rhocieczy → 1261, vgr → 0.04092, R → 0.02, g → 9.81};
```

In[95]:=
```
niepewnoscLepkosci[partialEtaNaPartialr_, niepewnoscr_,
  partialEtaNaPartialrhok_, niepewnoscrhok_, partialEtaNaPartialvgr_,
  niepewnoscvgr_, partialEtaNaPartialR_, niepewnoscR_] := Sqrt[
  partialEtaNaPartialr ^ 2 * niepewnoscr ^ 2 + partialEtaNaPartialrhok ^ 2 * niepewnoscrhok ^ 2 +
   partialEtaNaPartialvgr ^ 2 * niepewnoscvgr ^ 2 + partialEtaNaPartialR ^ 2 * niepewnoscR ^ 2]
```

In[96]:=
```
niepewnoscLepkosci[partialEtaNaPartialr, niepewnoscr,
 partialEtaNaPartialrhok, niepewnoscrhok, partialEtaNaPartialvgr,
 niepewnoscvgr, partialEtaNaPartialR, niepewnoscR]
```

Out[96]=

$$\sqrt{\left(710\,886.\,\text{niepewnoscr}^2+27.2618\,\text{niepewnoscR}^2+1.03191\times10^{-8}\,\text{niepewnoscrhok}^2+279.874\,\text{niepewnoscvgr}^2\right)}$$

In[97]:=
```
N[√(710886.2693251926` niepewnoscr^2 + 27.261809314139466` niepewnoscR^2 +
      1.0319122278410456`*^-8 niepewnoscrhok^2 + 279.87391400855125` niepewnoscvgr^2)] /.
 {niepewnoscr → 0.0000051, niepewnoscrhok → 90, niepewnoscvgr → 0.00093,
  niepewnoscR → 0.00015}
```

Out[97]=
```
0.0185675
```