If the radius is pretty constant then we can simplify the graph and the equations to the old ones.

\[ g = \frac{GM_{\text{Earth}}}{r_{\text{Earth}}^2} \]

\[ G = 6.67 \times 10^{-11} \text{ m}^3 \text{kg}^{-1} \text{s}^{-2} \left[ \frac{\text{m}^3}{\text{kg} \cdot \text{s}^2} \right] \]

\[ F_g = \frac{GM_{\text{Earth}} m_2}{r^2} \]

\[ \frac{kg \cdot m}{s^2} = \frac{m^2 \cdot kg^{-1} \cdot s^{-2} \cdot kg \cdot kg}{m^2} = \frac{m \cdot kg}{s^2} \]
Fields

Use Arrows to show the steepness and downhill direction on a potential.

They are not forces but they can be used to find forces.

\[ U_0 = \frac{GmM}{r^2} \]