

Gravitational Potential Energy

GPE
for short



height

equation

$$E_g = mgh$$

An object's gravitational energy is equal to the product of the mass, the acceleration due to gravity and the object's height.

practice

Determine the gravitational potential energy of a 25 kg snowman at the top of a 18 m tall hill.

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Potential energy is a form of energy objects can have because of their position in relation to forces.

The reference level is the lowest level to which an object can fall.

GPE = ____ J

change

$$\Delta E_g = mg\Delta h$$

Recall:
 $g = 9.8 \text{ m/s}^2$
acceleration
due to
gravity