Answer on Question #47985, Physics, Mechanics | Kinematics | Dynamics

Question:

A stone is dropped at rest from the top of a cliff. it is observed to hit the ground 5.78s later it falls an acceleration of -10m/s2. How high is the cliff?

Answer:

Height of the cliff equals:

$$h = \frac{gt^2}{2}$$

where g is acceleration due to gravity, t is time.

$$h = 10\frac{5.78^2}{2} = 167\,m$$

Answer: $167\,m$