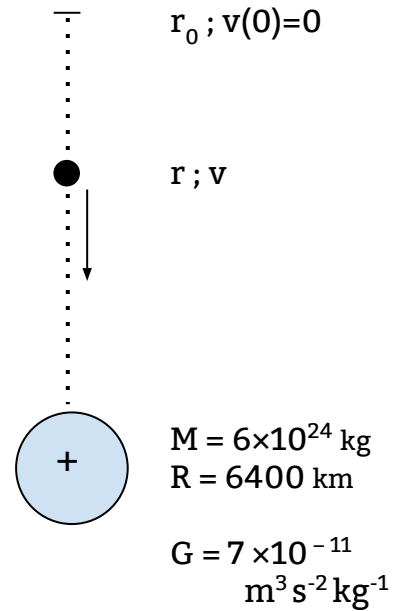


An asteroid falls straight down to the Earth's surface, as shown.

The initial distance from Earth is $r_0 = 384,000$ km, and the initial velocity is 0.

Calculate the SPEED of the asteroid when it hits the Earth.



Solution:

Use conservation of energy.

Answer is 11,200 m/s .