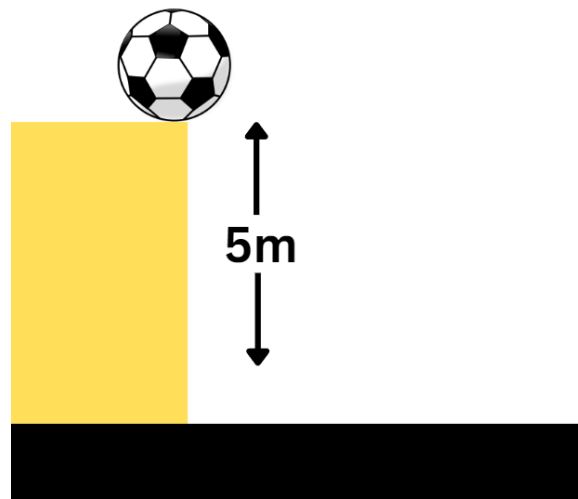


5.4.1 Ball falling



Question

A ball is falling from a cliff as shown in the figure. If the mass of the ball is 0.1kg find the velocity of the ball when it hits the ground.

Using known expressions:

$$T_1 + V_1 = T_2 + V_2$$

Given:

$$m = 0.1\text{kg}$$

Solution:

$$\begin{aligned}\frac{1}{2}mv^2 &= mgh \\ v &= 9.9\text{m/s}\end{aligned}$$