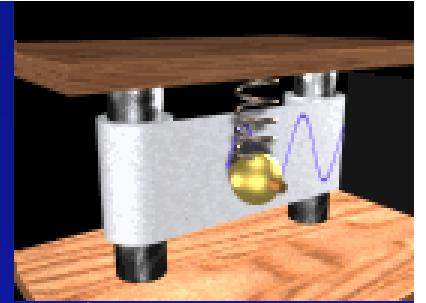


Example



A 3 kg mass is attached to a spring ($k=24 \text{ N/m}$). It is stretched 5 cm. At time $t=0$ it is released and oscillates.

What is the maximum speed of the block?

A) .45 m/s

B) .23 m/s

C) .14 m/s

$$E = U + K$$

When $x = 0$, maximum speed:

$$E = \frac{1}{2} m v^2 + 0$$

$$.03 = \frac{1}{2} 3 \text{ kg } v^2$$

$$v = .14 \text{ m/s}$$