

**W6.05c**Energy

1] A 10-kg box is held against a spring, which is compressed 2.0 m as shown. If the box is moving at 10 m/s when it reaches the top of the incline, what is the spring constant ( $k$ )?

Note: all surfaces are frictionless, and the height ( $H$ ) of the incline is 6.0 meters.

2] A 10-kg box is held against a spring, which is compressed 2.0 m as shown. If the box is moving at 10 m/s when it reaches the top of the incline, what is the spring constant ( $k$ )?

Note: the incline surface has a  $\mu = 0.2$ , all other surfaces are frictionless, and the height ( $H$ ) of the incline is 6.0 meters.

**KEY-W6.05c**

- 1] 550 N/m
- 2] 630 N/m