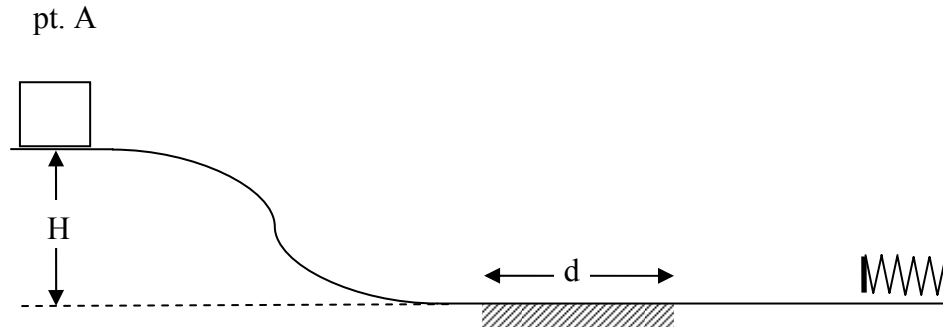


W6.05bEnergy

1] A 10-kg box is released from rest and slides down a 800 cm tall incline and then compresses a spring ($k = 50 \text{ N/m}$). What is the maximum compression of the spring (Δs) before the box is pushed away?
Note: all surfaces are frictionless **except** the crosshatched surface where $d = 10 \text{ m}$ and has a coefficient of friction of 0.10.

2] A 10-kg box moving at 10 m/s on top of a 800 cm tall incline slides down and then compresses a spring ($k = 50 \text{ N/m}$). What is the maximum compression of the spring (Δs) before the box is pushed away?
Note: all surfaces are frictionless **except** the crosshatched surface where $d = 10 \text{ m}$ and has a coefficient of friction of 0.10.

KEY-W6.05b

- 1] 5.29 m
- 2] 6.93 m