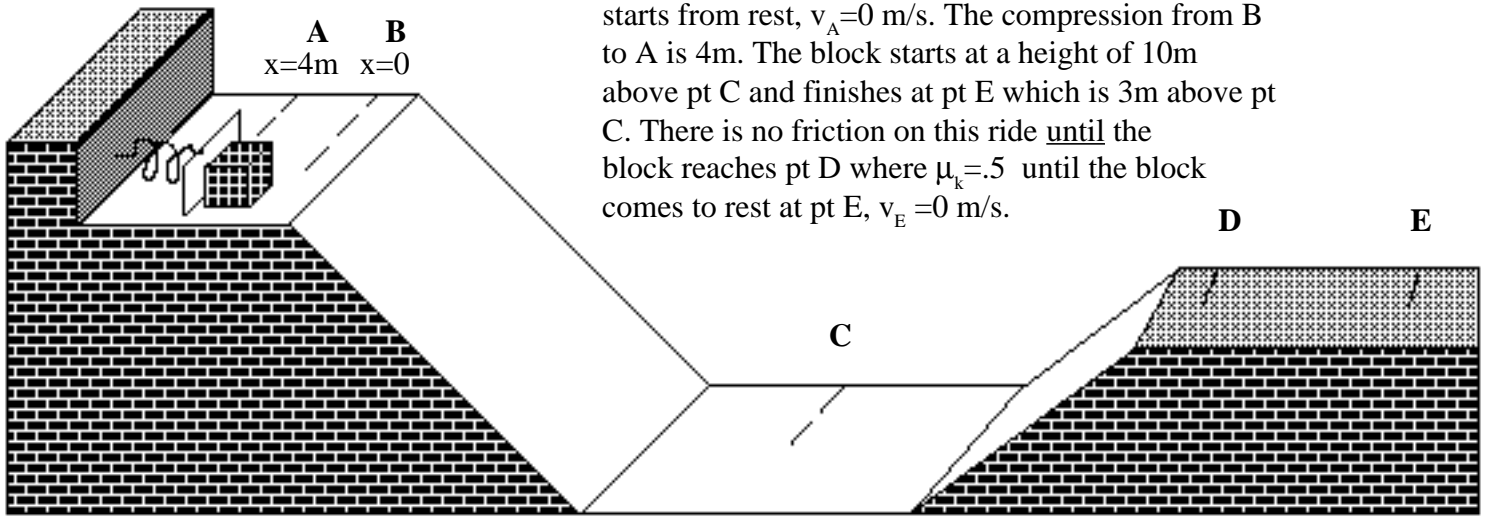


WORK-ENERGY QUIZ 10.0

A block of mass, $m=6\text{kg}$, is placed against a spring with $k=100\text{ N/m}$ and compressed to pt A where it starts from rest, $v_A=0\text{ m/s}$. The compression from B to A is 4m . The block starts at a height of 10m above pt C and finishes at pt E which is 3m above pt C. There is no friction on this ride until the block reaches pt D where $\mu_k=.5$ until the block comes to rest at pt E, $v_E=0\text{ m/s}$.



$$U_g = mgh / U_e = \frac{1}{2}kx^2 / K = \frac{1}{2}mv^2 / E = U_g + U_e + K / W = F \cdot d \text{ or } W = F \cos \theta \cdot d / W_{net} = \Delta K$$

(J)	A	B	C	D	E
U_g					
U_e					
K					
E					

(i) Complete the table above. (ii) Find the stopping distance from D to E. ($F_k = \mu_k N$)