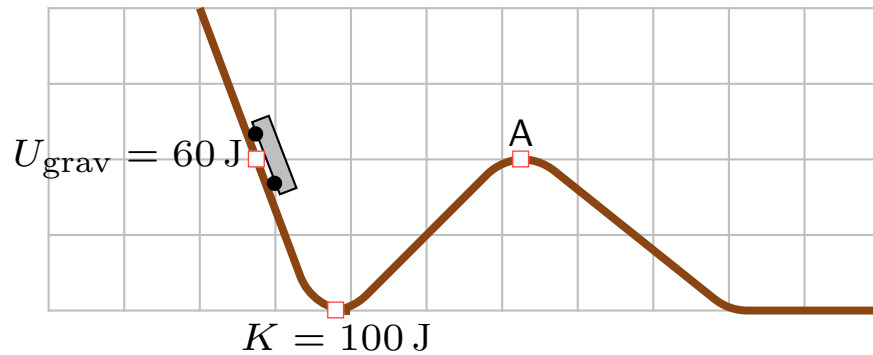


Question 1

A cart slides along a track as illustrated. The reference $y = 0$ is taken at the lowest point on the track. Various energies are shown at the indicated points.

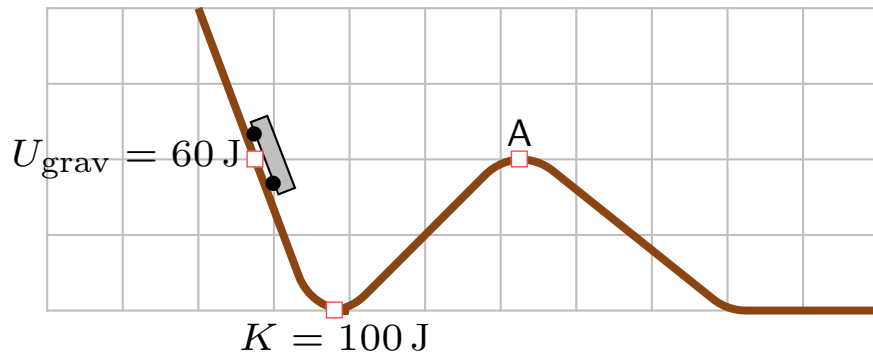


Which of the following is true regarding the total energy of the cart?

1. $E = 40 \text{ J}$
2. $E = 60 \text{ J}$
3. $E = 100 \text{ J}$
4. $E = 160 \text{ J}$

Question 2

A cart slides along a track as illustrated. The reference $y = 0$ is taken at the lowest point on the track. Various energies are shown at the indicated points.



Which of the following is true at point A?

1. $U_{\text{grav}} = 100 \text{ J}$ $K = 0 \text{ J}$
2. $U_{\text{grav}} = 100 \text{ J}$ $K = 60 \text{ J}$
3. $U_{\text{grav}} = 60 \text{ J}$ $K = 0 \text{ J}$
4. $U_{\text{grav}} = 60 \text{ J}$ $K = 40 \text{ J}$
5. $U_{\text{grav}} = 40 \text{ J}$ $K = 60 \text{ J}$