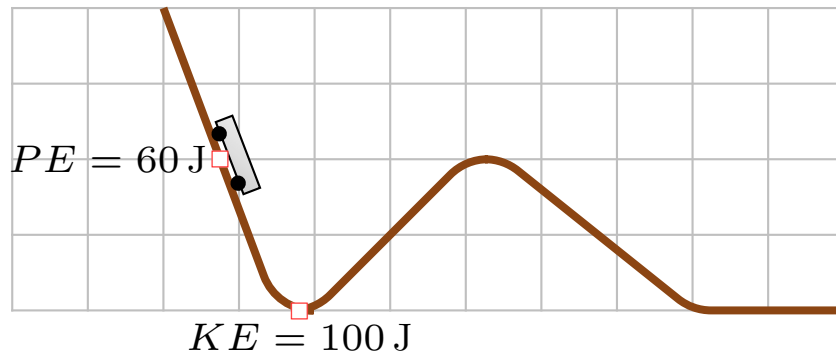# Question 1

A cart slides along a track as illustrated. The lowest point on the track is at ground level. Various energies are shown at the indicated points.



$PE = 60\,\text{J}$

$KE = 100\,\text{J}$

What is the total energy of the cart?

1. $E = 160\,\text{J}$

2. $E = 100\,\text{J}$

3. $E = 60\,\text{J}$

4. $E = 40\,\text{J}$

# Question 2

A cart slides along a track as illustrated. The lowest point on the track is at ground level. Various energies are shown at the indicated points.
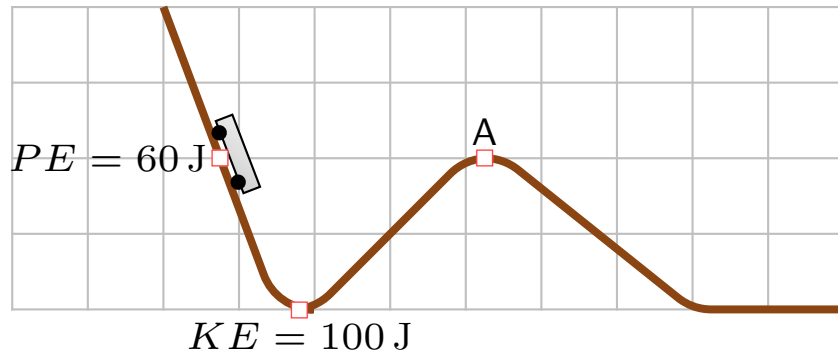


Which of the following is true at point A?

1. $PE = 100\,\text{J}$    $K = 0\,\text{J}$

2. $PE = 100\,\text{J}$    $K = 60\,\text{J}$

3. $PE = 60\,\text{J}$    $K = 0\,\text{J}$

4. $PE = 60\,\text{J}$    $K = 40\,\text{J}$

5. $PE = 40\,\text{J}$    $K = 60\,\text{J}$

# Question 3

A pendulum is released from rest. The string encounters a "peg" in its path. Which indicates the highest point that the pendulum ball reaches after the string strikes the peg?

Release            Highest point