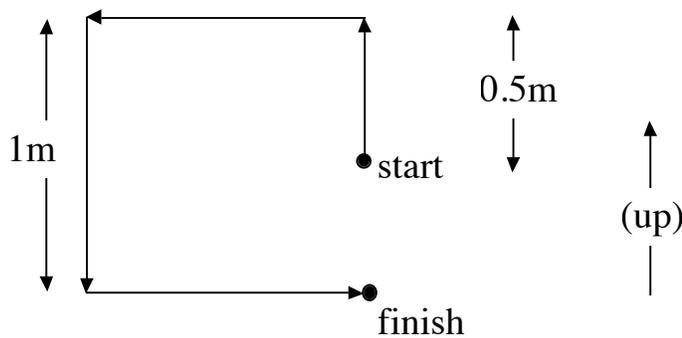


7-3

A 1 kg object is moved part way around a square loop as shown. The square is 1m on a side. The final position is 0.5 m lower than where it started.

How much work has *gravity* done on the object during its journey? (Use $g=10 \text{ m/s}^2$)



A: +5 J B: -5 J C: +10 J D: -10 J E: 0 J

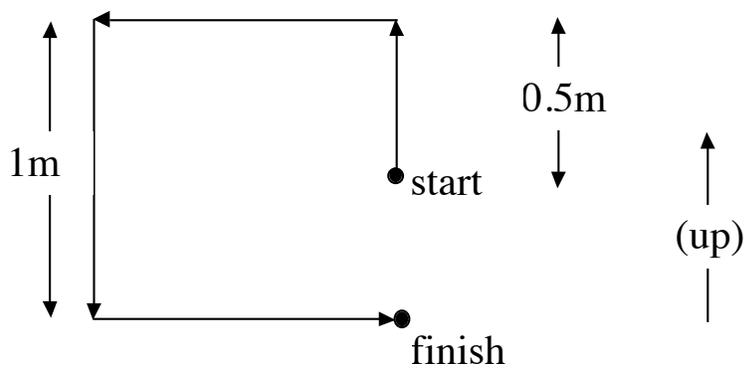
If instead of moving part way around a square, the mass were taken on a long and tortuous journey to the Moon, Tibet, and Lithuania and then returned to the same finish point as before, would the work done by gravity be the...

A: same B different.

7-4

A 1 kg object is moved part way around a square loop as shown. The square is 1m on a side. The final position is 0.5 m lower than where it started.

How much work have YOU done on the object during its journey? (Use $g=10 \text{ m/s}^2$)



- A: +5 J B: -5 J C: +10 J D: -10 J E: 0 J**

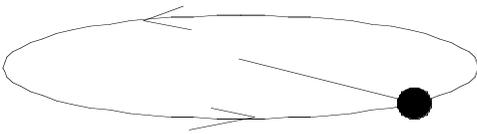
7-5

A rock of mass m is twirled on a string in a horizontal plane. The work done by the tension in the string on the rock is..

A:+ (positive)

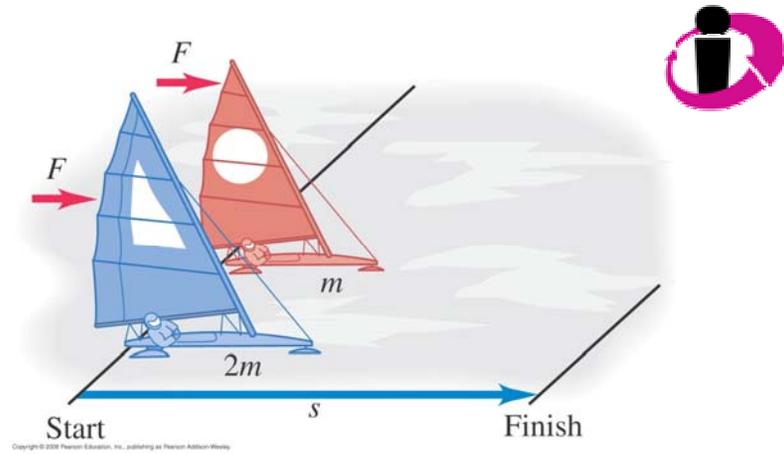
B: - (negative)

C: 0



Q6.3

Two iceboats (one of mass m , one of mass $2m$) hold a race on a frictionless, horizontal, frozen lake. Both iceboats start at rest, and the wind exerts the same constant force on both iceboats.

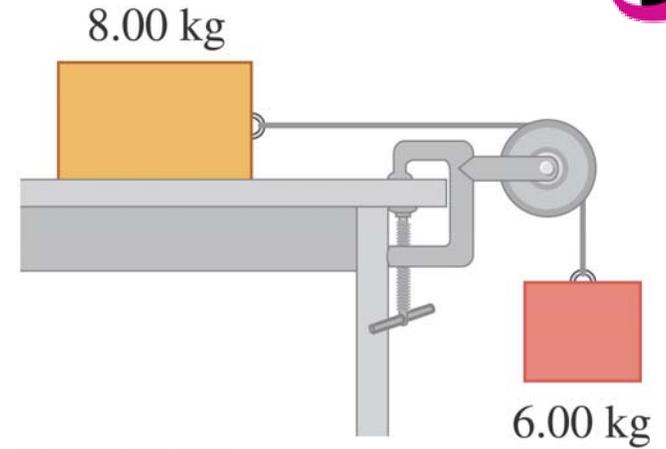


Which iceboat crosses the finish line with more kinetic energy (KE)?

- A. The iceboat of mass m : it has twice as much KE as the other.
- B. The iceboat of mass m : it has 4 times as much KE as the other.
- C. The iceboat of mass $2m$: it has twice as much KE as the other.
- D. The iceboat of mass $2m$: it has 4 times as much KE as the other.
- E. They both cross the finish line with the same kinetic energy.

Q6.6

A 6.00-kg block and an 8.00-kg block are connected as shown. When released, the 6.00-kg block accelerates downward and the 8.00-kg block accelerates to the right. After each block has moved 2.00 cm, the force of gravity has done

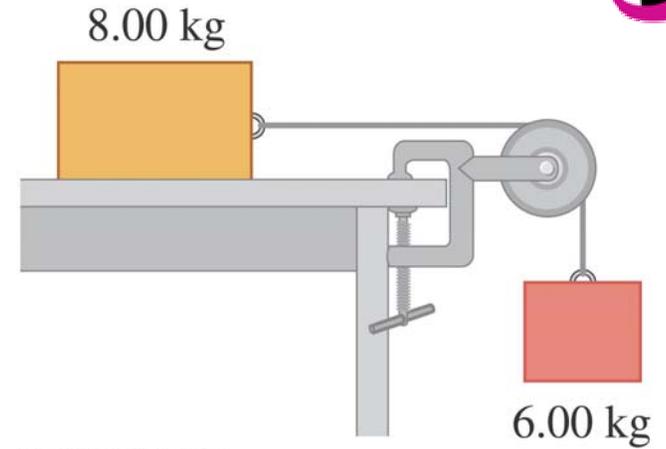


- A. more work on the 8.00-kg block than on the 6.00-kg block.
- B. the same amount of work on both blocks.
- C. less work on the 8.00-kg block than on the 6.00-kg block.
- D. not enough information given to decide

Q6.7



A 6.00-kg block and an 8.00-kg block are connected as shown. When released, the 6.00-kg block accelerates downward and the 8.00-kg block accelerates to the right. After each block has moved 2.00 cm, the total work done on the 8.00-kg block



- A. is greater than the total work done on the 6.00-kg block.
- B. is the same as the total work done on the 6.00-kg block.
- C. is less than the total work done on the 6.00-kg block.
- D. not enough information given to decide