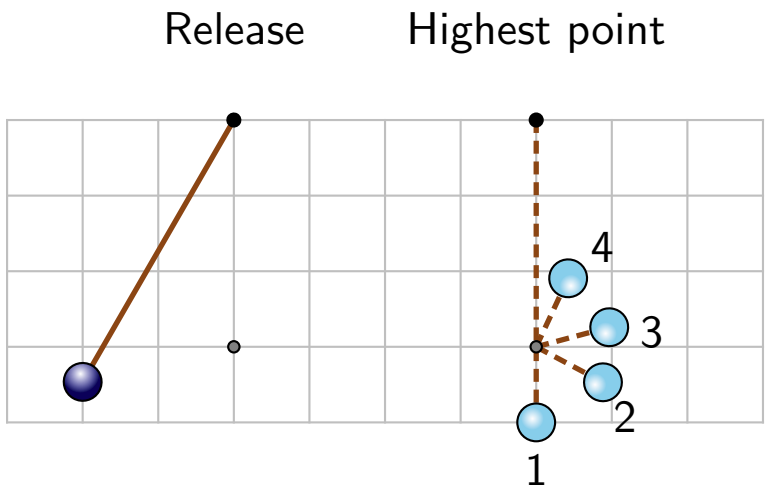
Question 1

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?



Question 2

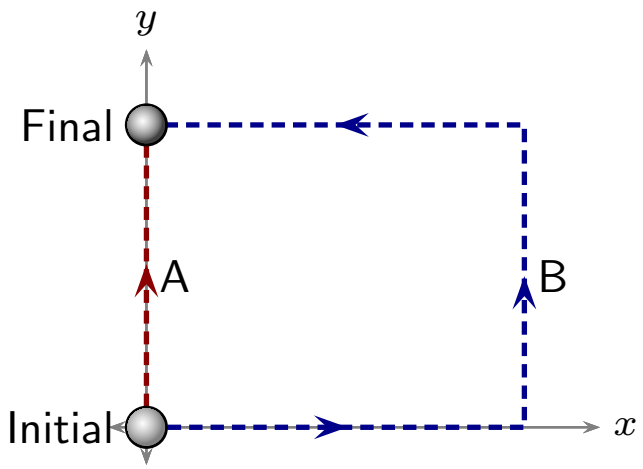
An object can slide left or right along a linear track. There is friction between the object and the track.

Which of the following is true regarding work done by the frictional force?

1. Always positive.
2. Always negative.
3. Always zero.
4. Positive when object moves right, negative when object moves left.
5. Negative when object moves right, positive when object moves left.

Question 3

A heavy ball can be moved on a rough horizontal surface from an initial to a final location via one of the two illustrated routes.



Which of the following is true about the *magnitude of the work done by the frictional force*?

1. Same for path A and B.
2. Larger for path A.
3. Larger for path B.
4. Depends on the speed of the ball.