

# Question 1

A cart slides to the left with constantly increasing *speed*.

Which of the following is true?

1. The average acceleration is positive.
2. The average acceleration is negative.
3. The average acceleration is negative if the cart is right of the origin but positive if it is left of the origin.
4. The average acceleration is negative if the cart is left of the origin but positive if it is right of the origin.
5. The average acceleration is zero.

## Question 2

A ball is thrown up into the air. Consider a period of motion *after the ball has left the hand* and before it reaches its highest point.

Regarding upwards as positive, which of the following is true?

1. The acceleration of the ball is positive.
2. The acceleration of the ball is negative.
3. The acceleration of the ball is zero at all times.
4. The acceleration of the ball is positive immediately after leaving the hand and is zero after.
5. None of the above is true.

## Question 3

A ball is thrown up into the air. Consider a period of motion after the ball reaches its highest point and while it falls back to the hand.

Regarding upwards as positive, which of the following is true?

1. The acceleration of the ball is positive.
2. The acceleration of the ball is negative.
3. The acceleration of the ball is zero at all times.
4. The acceleration of the ball is positive immediately after leaving the hand and is zero after.
5. None of the above is true.