

Question 1

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 2

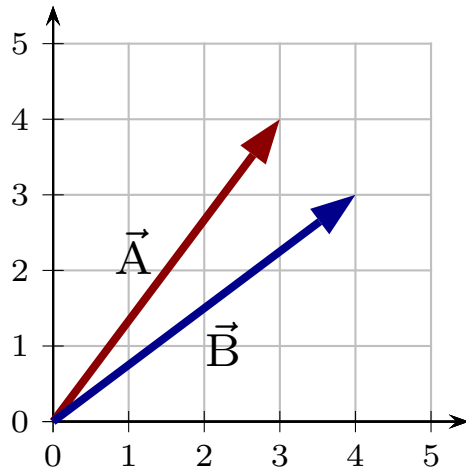
A ball is thrown up into the air. Consider the period *after the ball reaches its highest point* and while it falls back to the hand.

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.

Question 3

Consider the two vectors \vec{A} and \vec{B} as illustrated.



Which of the following is true?

1. The vectors have different magnitudes and are thus different.
2. The magnitudes are both 5 but the vectors are *not equal*.
3. The magnitudes are both 7 but the vectors are *not equal*.
4. The magnitudes are both 5 and the vectors are *equal*.
5. The magnitudes are both 7 and the vectors are *equal*.