

- 5** An object is fired upwards from horizontal ground. The object has an initial velocity of 20 m s^{-1} at an angle of 45° to the horizontal. Air resistance is negligible.

Which statement describes the speed of the object after it is fired until immediately before it reaches the ground again?

- A** Its speed decreases to a value greater than zero, then increases to 20 m s^{-1} .
- B** Its speed decreases to a value greater than zero, then increases to a value greater than 20 m s^{-1} .
- C** Its speed decreases to zero, then increases to 20 m s^{-1} .
- D** Its speed decreases to zero, then increases to a value less than 20 m s^{-1} .