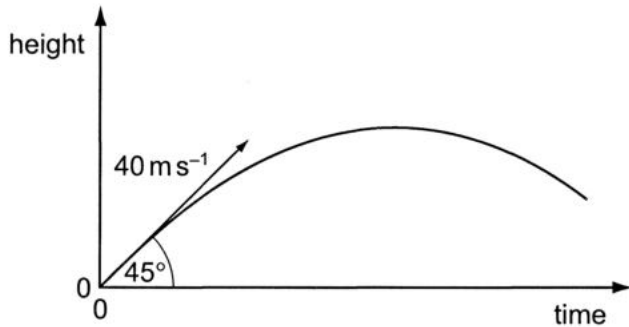


- 5 An object is projected with velocity  $40 \text{ m s}^{-1}$  at an angle of  $45^\circ$  to the horizontal. Air resistance is negligible.



What is the speed of the object after  $5.0 \text{ s}$ ?

- A**  $21 \text{ m s}^{-1}$       **B**  $28 \text{ m s}^{-1}$       **C**  $35 \text{ m s}^{-1}$       **D**  $49 \text{ m s}^{-1}$
- 6 An object in a space capsule orbiting the Earth seems to be floating.