

- 7** An object accelerates uniformly from rest to speed  $v$ . It then moves at constant speed  $v$  for a time of 8.0 s before decelerating uniformly to rest. The total time taken is 12.0 s, and the total distance travelled is 60 m.

What is the speed  $v$ ?

- A**  $3.0 \text{ ms}^{-1}$       **B**  $5.0 \text{ ms}^{-1}$       **C**  $6.0 \text{ ms}^{-1}$       **D**  $15 \text{ ms}^{-1}$