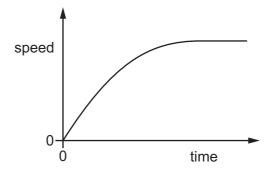
7 Newton's third law describes two forces that are equal in magnitude and form a pair.

Which description of the two forces in such a pair is **not** correct?

- **A** They act in opposite directions.
- **B** They act on different objects.
- **C** They are the same type of force.
- **D** They cause an object to be in equilibrium.
- 8 The graph shows the variation with time of the speed of a raindrop falling vertically through air.



Which statement is correct?

- **A** The acceleration decreases to produce a steady speed.
- **B** The acceleration increases as the speed increases.
- **C** The air resistance decreases as the speed increases.
- **D** The resultant force increases as the speed increases.
- **9** Which statement about a perfectly elastic collision between two objects is correct?
  - **A** Total kinetic energy is conserved and the relative speed of approach equals the relative speed of separation.
  - **B** Total kinetic energy is conserved but the relative speed of approach does **not** equal the relative speed of separation.
  - **C** Total kinetic energy is **not** conserved and the relative speed of approach does **not** equal the relative speed of separation.
  - **D** Total kinetic energy is **not** conserved but the relative speed of approach does equal the relative speed of separation.