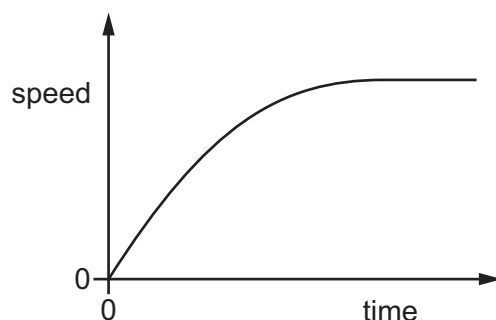


- 7 Newton's third law describes two forces that are equal in magnitude and form a pair.

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.