

- 7 Which statement follows directly from Newton's first law?
- A A body remains at constant velocity unless acted upon by a resultant force.
 - B A satellite in circular motion about the Earth has a constant velocity.
 - C A water drop leaving a spinning umbrella travels at a constant velocity.
 - D The force acting on an object is equal to its change in momentum.

- 8 A resultant force causes an object to accelerate.

What is equal to the resultant force?

- A the acceleration of the object per unit mass
 - B the change in kinetic energy of the object per unit time
 - C the change in momentum of the object per unit time
 - D the change in velocity of the object per unit time
- 9 A skydiver falls from an aircraft that is moving horizontally.

The vertical component of the velocity of the skydiver is v .

The vertical component of the acceleration of the skydiver is a .

Which row describes v and a during the first few seconds after the skydiver leaves the aircraft?

	v	a
A	constant	constant
B	constant	decreasing
C	increasing	constant
D	increasing	decreasing