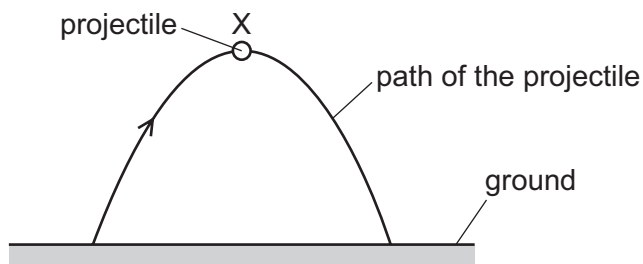
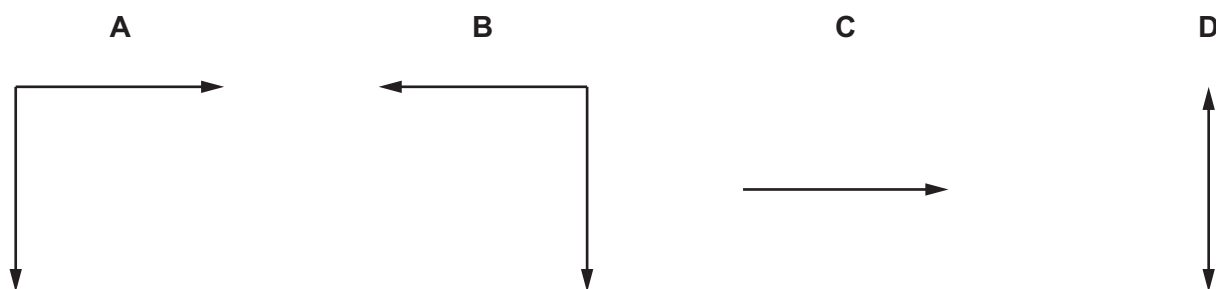


- 9 A projectile is launched at an angle above horizontal ground and travels through the air.



The projectile reaches its maximum height at position X. Assume that no upthrust acts on the projectile.

Which diagram shows the **directions** of the force or forces acting on the projectile at position X?



- 10 What is a statement of the principle of conservation of momentum?

- A A force is equal to the rate of change of momentum of the object upon which it acts.
- B In a perfectly elastic collision, the relative momentum of the objects before impact is equal to their relative momentum after impact.
- C The momentum of an object is the product of the mass of the object and its velocity.
- D The total momentum of a system of interacting objects remains constant, providing no resultant external force acts on the system.