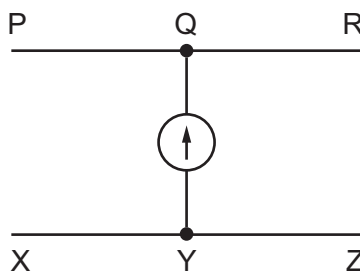


- 5 PQR and XYZ are wires in a circuit. A galvanometer connects Q and Y as a null indicator.



When the galvanometer reads zero, which statement is correct?

- A The potential difference between Q and Y is infinite.
 - B The potential difference between Q and Y is zero.
 - C The resistance between Q and Y is infinite.
 - D The resistance between Q and Y is zero.
- 6 An object has an initial velocity u and an acceleration a . The object moves in a straight line through a displacement s and has final velocity v .

The above quantities are related by the equation shown.

$$v^2 = u^2 + 2as$$

Which condition **must** be satisfied in order for this equation to apply to the motion of the object?

- A The direction of a is constant and the direction of a is the same as the direction of s .
 - B The direction of a is constant and the direction of a is the same as the direction of u .
 - C The magnitude of a is constant and the direction of a is constant.
 - D The magnitude of a is constant and the direction of a is the same as the direction of v .
- 7 A car is travelling at constant velocity. Its brakes are then applied, causing uniform deceleration.

Which graph shows the variation with distance s of the velocity v of the car?

