

Physics Quiz # 2

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Q1.

(b) displacement

Q2.

(b) acceleration

Q3.

(b) only if the acceleration is constant

Q4.

$$s(t) = (2t^2 - 8t + 6)$$

$$t = 0, s(t) = (2 \cdot 0^2 - 8 \cdot 0 + 6) = 6$$

$$t = 3, s(t) = (2 \cdot 3^2 - 8 \cdot 3 + 6) = 9$$

$$s(t = 0) - s(t = 3) = 3$$

Q5.

$$v^2 = v_0^2 + 2a(s - s_0)$$

$$= 1^2 + 2 \times 4(2 - 0)$$

$$= 17$$

$$v = \sqrt{17} = 4.1231 \text{ m/s}$$

