

Question #63360, Physics / Mechanics | Relativity | for completion

Task: Find the time taken for a car to travel 98m if it start from rest and accelerate at 4.00 m/s

Answer:

$$S = 98\text{m}$$

$$a = 4\text{m/s}^2$$

$$v_0 = 0 \text{ m/s}$$

$$t = ?$$

$$S = v_0 * t + a * t^2 / 2$$

$$S = a * t^2 / 2$$

$$t = \sqrt{2 * s / a}$$

$$t = 7\text{s}$$

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