

Question #62160, Physics / Other

When a bus comes to a sudden stop to avoid hitting a dog, it decelerates uniformly at 4.2 m/s squared as it slows from 9.0 m/s to 0 m/s. Find the time interval of acceleration for the bus. Answer in units of s.

Solution

$$v - v_0 = at ;$$

$$t = \frac{v - v_0}{a} ;$$

$$t = \frac{0 - 9}{-4.2} = 2.14 \text{ s}$$

Answer: 2.14 s

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