

Question #62077, Physics / Other

The head of a rattlesnake can accelerate 50.0 m/s in striking a victim. If a car could do this as well, how long would it take for it to reach a speed of 24.6 m/s from rest?

The answer to the question.

The equation of uniformly accelerated motion speed:

$$v = at;$$

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

$$t = \frac{24.6 \text{ m/s}}{50 \text{ m/s}^2} = 0.492 \text{ s};$$

Answer: $t = 0.492 \text{ s}$

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