

[1] A car moves according to the equation below.

$$v = 1.6 + 2.5 t$$

Which of the following best solves the problem calculating the v_0 & a ?

Write [Correct] in the correct box

[A]	<i>The initial velocity $v_0 = 2.5 \text{ m/s}$ The acceleration $a = 1.6 \text{ m/s}^2$</i>	[B]	<i>The initial velocity $v_0 = 2.5 \text{ m/s}^2$ The acceleration $a = 1.6 \text{ m/s}$</i>
[C]	<i>The initial velocity $v_0 = 1.6 \text{ m/s}^2$ The acceleration $a = 2.5 \text{ m/s}^2$</i>	[D]	<i>The initial velocity $v_0 = 1.6 \text{ m/s}$ The acceleration $a = 2.5 \text{ m/s}^2$</i>

[2] The equation below describes the motion of your car during your trip.

$$x = 1.6t + 0.5 t^2$$

Complete the following by writing the correct answer:

- 1- The initial velocity $v_i = \text{ m/s}$
- 2- The acceleration $a = \text{ m/s}^2$
- 3- The distance moved after 4 s $x = \text{ m}$

Critical Thinking:

A car moves in a straight line with an average velocity 18 m/s. If the change in the car velocities is 4 m/s while it moved 36 m, the car acceleration is . Write [correct] inside the correct box

[A]	0.2 m/s ²	[B]	2 m/s
[C]	2 m/s ²	[D]	20 m/s ²