

Grade level; **Grade 11**

Student's Name;

Class;

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

$$v = 1.6 + 2.5t$$

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

Write [Correct] in the correct box

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

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

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

Complete the following by writing the correct answer:

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