Grade level; Grade 11

Student's Name; _____ **Class;** _____

[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_o&a ?

Write [Correct] in the correct box

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

[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 $v_i =$ 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