

11.3 Interpreting a Velocity-Time graph

Integrated Science

Name: _____ Date: _____ Per. _____

Velocity v. Time

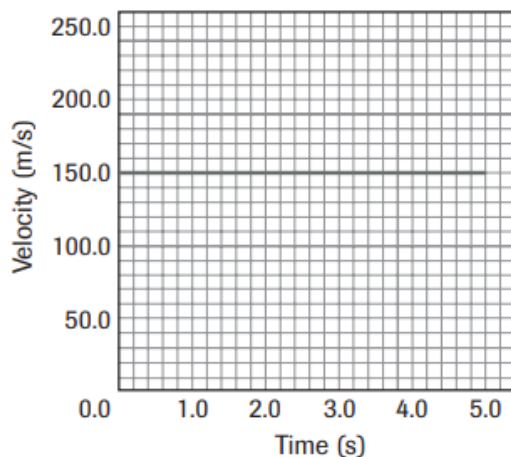
Table A

Velocity v. Time	
Time (s)	Velocity (m/s)
0.0	150.0
1.0	150.0
2.0	150.0
3.0	150.0
4.0	150.0
5.0	150.0

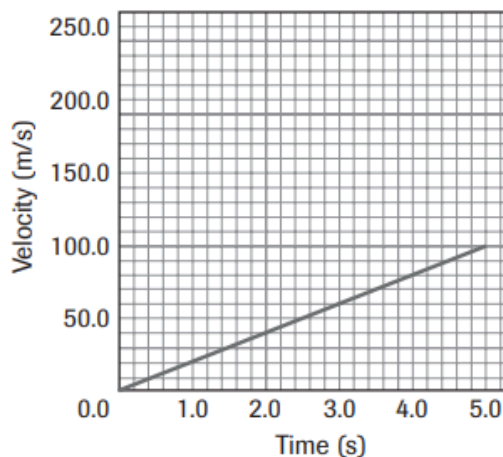
Table B

Velocity v. Time	
Time (s)	Velocity (m/s)
0.0	+0.0
1.0	+20.0
2.0	+40.0
3.0	+60.0
4.0	+80.0
5.0	+100.0

Graph A
Velocity v. Time



Graph B
Velocity v. Time



Directions: Answer all open-ended questions in complete sentences. For math questions, show all of your work and include appropriate units and significant figures in your final answer to receive **FULL** credit.

Velocity v. Time

1. In which graph is the object moving at a constant velocity? How do you know?
2. What is the velocity?

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3. What is the slope of the line in Graph B? What value does the slope represent?

4. Write the equation that represents Graph A.

5. For Graph B, state the relationship between the variables as an equation.

6. In Graph A, what is the object's displacement at 4.5 s?

7. In Graph B, what is the object's displacement between 2.0 s and 5.0 s?

8. Compare the velocities of the objects in the two graphs at 3.0 s.

9. How long will it take the object in Graph B to reach the velocity of the object in Graph A?

10. What is the difference in velocity between the two objects at 2.0 s?