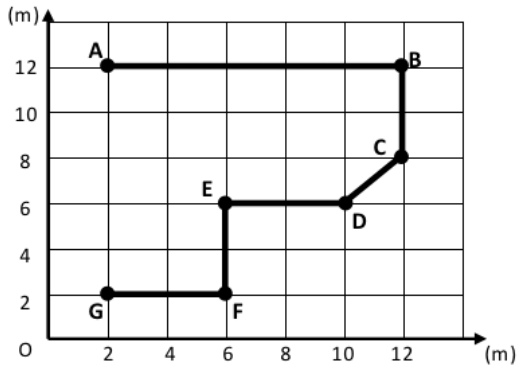


Motion Quiz Review

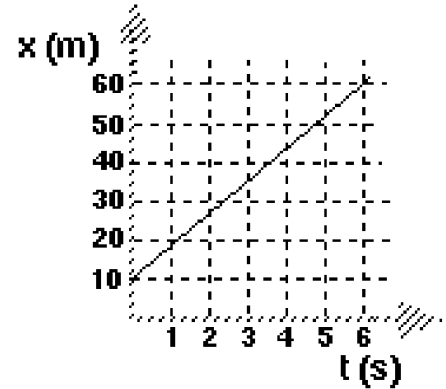
Name _____

1. Jake starts at point A and ends at point G.



- a. What is Jake's distance from A-B?
10 m
- b. What is Jake's total distance?
28.83 m
- c. What is Jake's displacement?
10 m S

2. Consider the Position vs. Time graph below.



- a. What was the total distance traveled?
50 m
- b. How long was the object traveling?
6 s
- c. What was the average speed of the object?
8.33 m/s

3. What is the average speed of a train that travels 800km in 1.5 hours?

533.33 km/hr

4. What is the distance traveled by a helicopter that goes 50 m/s for 90 sec?

4500 m

5. Convert your answer for number 4 to miles (mi).

2.797 mi

6. What is the average speed of a car that travels 35 mi/hr for 2 hours and then 50 mi/hr for .5 hours?

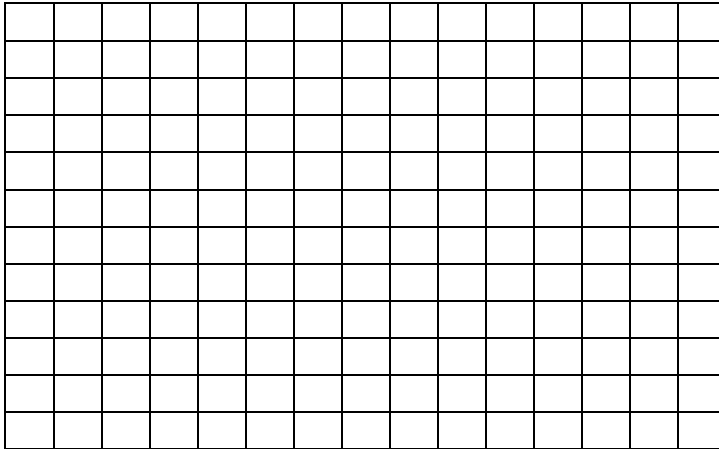
38 mi/hr

Motion Quiz Review

Name _____

7. Graph the following information. Use a different color for the control and the variable. Be sure to label everything properly.

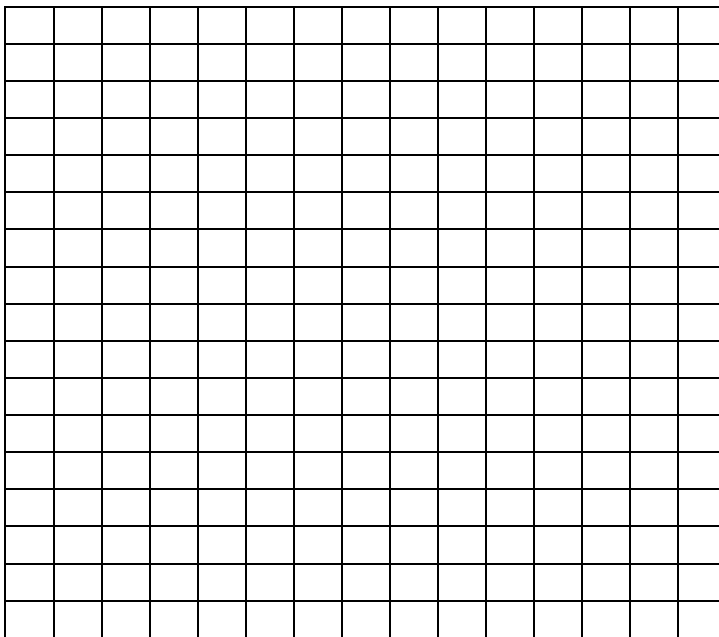
a.



| Time(s) | Control Position(m) | Variable Position(m) |
|---------|---------------------|----------------------|
| 0 | 2 | 22 |
| 3 | 6 | 18 |
| 6 | 10 | 14 |
| 9 | 14 | 10 |
| 12 | 18 | 6 |
| 15 | 22 | 2 |

What variable change could have caused this graph? **Start at the "end" and move toward the origin.**

b.



| Time(s) | Control Position(m) | Variable Position(m) |
|---------|---------------------|----------------------|
| 2 | 0 | -5 |
| 4 | 1.5 | -3 |
| 6 | 3 | -1 |
| 8 | 4.5 | 1 |
| 10 | 7 | 3 |
| 12 | 8.5 | 5 |
| 14 | 10 | 7 |

What variable change could have caused this graph? **Starting behind the origin.**

Review the graphs from the **Constant Velocity Car Lab Graphs** worksheet. You should be able to describe the variable that could have caused the change in motion. You should also be able to describe the motion for each segment of a position vs. time graph.