# *Graphing Motion*                                         **Name** _____

## Part A

*The graph in Figure 1 shows data for two objects that start from rest and travel in a straight line. Interpret the graph to answer the following questions.*
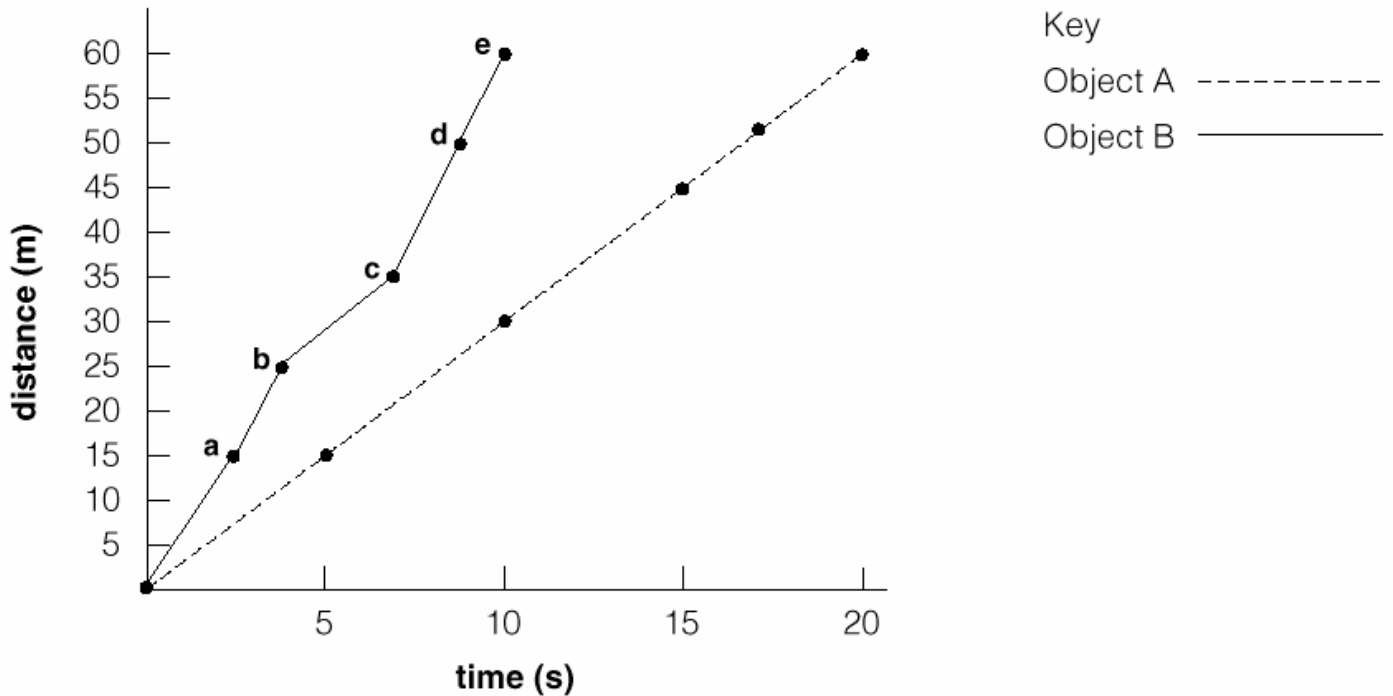


Figure 1 Movement of Objects A and B

1. What does each point plotted on the graph in Figure 1 represent?

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2. What does line A tell you about the speed at which object A moved?

_____

3. What does line B tell you about the speed at which object B moved?

_____

4. The lines that connect plotted points on a graph are called the *curve of the graph.* What can you tell about the way

   object B moved from looking at the curve?

_____

5. Which object moved faster for 50 meters? How do you know?

_____

6. What was object A's speed? Show your calculations.

_____

7. What was object B's speed from start to point b? From point b to point c? From point c to

point e? Show your calculations.

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8. What was the average speed of object B from start to point e?

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**Part B**

*Data Table 1 shows the speed of object C at different times as it moves. Use the information in Data Table 1 to plot a curve on the graph in Figure 2. Fill in the third column on the data table by calculating the speed of the object.*

## Data Table 1

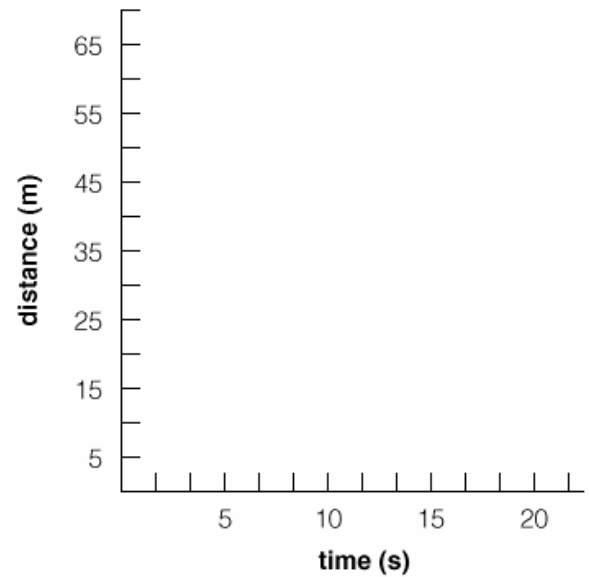| Distance in meters | Time in seconds | Speed m/s |
|---|---|---|
| 15 | 3 | |
| 25 | 2 | |
| 10 | 4 | |
| 5 | 8 | |
| 15 | 3 | |

Figure 2 Movement of Object C

1. What was the average speed of object C?

_____

2. Plot the average speed on Figure 2.