Student Journal

Part II: Implement Your Investigation, continued

Analyze Data

1. Describe the speed, velocity, and acceleration of the walker in Walk 1.

2. Compare the distance versus time graph and the speed versus time graph for Walk 1.

3. Describe the speed, velocity, and acceleration of the walker in Walk 2.

4. Compare the distance versus time graph and the speed versus time graph for Walk 2.

5. Describe the speed, velocity, and acceleration of the walker in Walk 3.

6. Compare the distance versus time graph and the speed versus time graph for Walk 3.

7. Describe the speed, velocity, and acceleration of the walker in Walk 4.

8. Compare the distance versus time graph and the speed versus time graph for Walk 4.

Part II: Implement Your Investigation, continued

Analyze Data

9. Which graph(s) shows movement at the highest rate of speed? How do the graphs show you this?

10. Which graph(s) shows a change in speed? Explain.

11. Which graph(s) shows the walker changing direction? How do you know?

12. Which graph(s) shows the walker stopping? How is this shown in the graphs?

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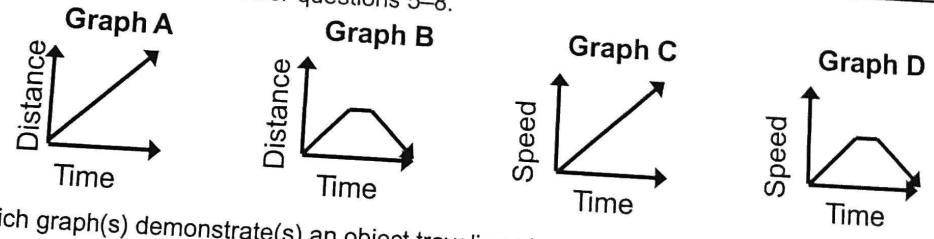
Reflections and Conclusions

1. Define the following in your own words.
   (a) Speed _____
   (b) Velocity _____
   (c) Acceleration _____
2. How is speed shown on a distance v. time graph?
   _____
   _____
3. How can you determine if an object is accelerating by looking at a distance v. time graph?
   _____
   _____
4. How can you determine if an object is accelerating by looking at a speed v. time graph?
   _____
   _____

Use the graphs below to answer questions 5–8.



5. Which graph(s) demonstrate(s) an object traveling at a constant speed for the entire period of time?
   _____
   _____
6. Which graph(s) demonstrate(s) an object changing velocity (i.e. changing speed or direction)?
   _____
   _____
7. Which graph(s) demonstrate(s) an object stopping for a period of time? _____
8. Which graph(s) demonstrate(s) an object accelerating for the entire period of time?
   _____