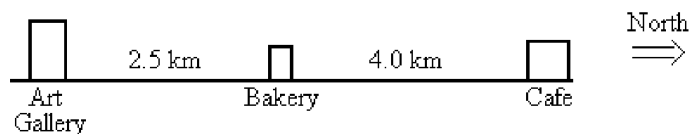


- 1) Suppose that an object travels from one point in space to another. Make a comparison between the displacement and the distance traveled. 1) _____
- A) The displacement is either greater than or equal to the distance traveled.
 - B) The displacement can be either greater than, smaller than, or equal to the distance traveled.
 - C) The displacement is either less than or equal to the distance traveled.
 - D) If the displacement is equal to zero, then the distance traveled will also equal zero.
 - E) The displacement is always equal to the distance traveled.
- 2) You drive 6.00 km at 50.0 km/h and then another 6.00 km at 90.0 km/h. Your average speed over the 12.0 km drive will be 2) _____
- A) equal to 70.0 km/h.
 - B) less than 70.0 km/h.
 - C) exactly 38.0 km/h.
 - D) greater than 70.0 km/h.
 - E) cannot be determined from the information given, must also know directions traveled
- 3) Arthur and Betty start walking toward each other when they are 100 m apart. Arthur has a speed of 3.0 m/s and Betty has a speed of 2.0 m/s. Their dog, Spot, starts by Arthur's side at the same time and runs back and forth between them at 5.0 m/s. By the time Arthur and Betty meet, what distance has Spot run? 3) _____
- 4) Arthur and Betty start walking toward each other when they are 100 m apart. Arthur has a speed of 3.0 m/s and Betty has a speed of 2.0 m/s. How long does it take for them to meet? 4) _____

Figure 2-6



5) Refer to Figure 2-6. If you start from the Bakery, travel to the Art Gallery, and then to the Cafe, in 1.0 hour, what is your average speed? 5) _____

A) 9.0 km/hr
B) 10.5 km/hr
C) 2.5 km/hr
D) 6.5 km/hr
E) 1.5 km/hr

6) Refer to Figure 2-6. If you start from the Bakery, travel to the Cafe, and then to the Art Gallery, what is the magnitude of your displacement? 6) _____

A) 6.5 km B) 9.0 km C) 10.5 km D) 2.5 km E) 1.5 km

7) A car is making a 12-mile trip. It travels the first 6.0 miles at 30 miles per hour and the last 6.0 miles at 60 miles per hour. What is the car's average speed for the entire trip? 7) _____

A) 35 mph B) 50 mph C) 20 mph D) 40 mph E) 45 mph

8) A runner runs around a track consisting of two parallel lines 96 m long connected at the ends by two semicircles with a radius of 49 m. She completes one lap in 100 seconds. What is her average velocity? 8) _____

A) 5.0 m/s B) 10 m/s C) 1.3 m/s D) 0 m/s E) 2.5 m/s