

Distance and Displacement

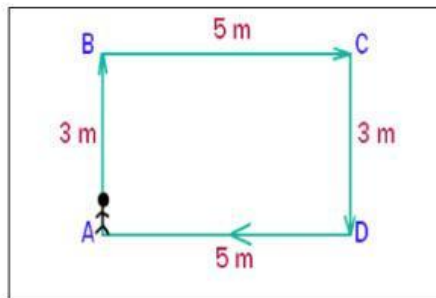
Total questions: 23

Worksheet time: 20mins

1. Distance and direction of an object's change in position from a starting point

- | | |
|---------------------|-------------|
| a) displacement | b) distance |
| c) motion reference | d) point |

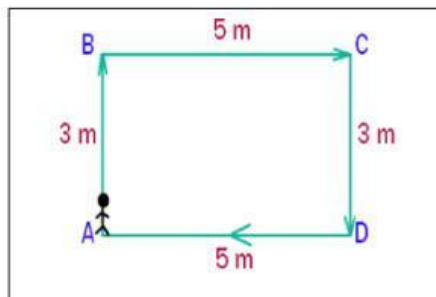
2.



Sara walks from Point A to Point B. Which is true?

- | | |
|--|---------------------------------------|
| a) Distance and displacement are EQUAL | b) Distance is less than displacement |
|--|---------------------------------------|

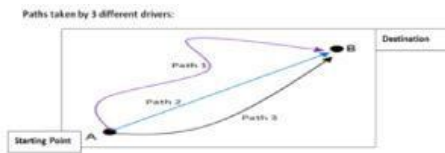
3.



Find the distance Sara walks from A to B, B to C then C to D?

- | | |
|---------|--------|
| a) 11 m | b) 3 m |
| c) 5 m | d) 8 m |

4.



Which driver has an **equal** distance and displacement at B?

- a) 1
- b) 2
- c) 3

5. Jermaine runs exactly 2 laps around a 400 meter track. What is the displacement?

- a) 800
- b) 400
- c) 0
- d) 200

6. David walks 3 km north, and then turns east and walks 4 km. What is the distance?

- a) 7 km
- b) 3 km
- c) 4 km
- d) 1 km

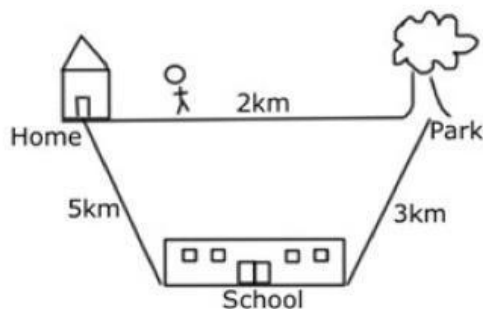
7. Bill runs 400 meters to Andy's house, turns around, and runs 400 meters back home. What is Bill's **distance**?

- a) 0 meters
- b) 400 meters
- c) 800 meters
- d) 1600 meters

8. Bill runs 400 meters to Andy's house, turns around, and runs 400 meters back home. What is Bill's **displacement**?

- a) 0 meters
- b) 400 meters
- c) 800 meters
- d) 1600 meters

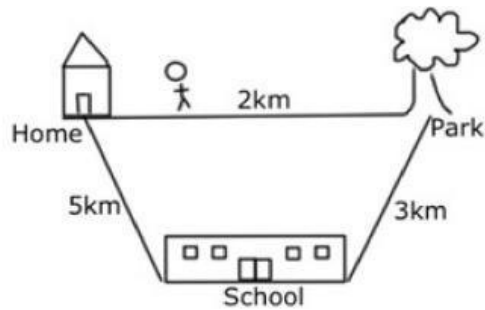
9.



Jerry walked from home to school, then from the school to the park. What is his total distance?

- a) 2 km
- b) 8 km
- c) 5 km
- d) 10 km

10.



Jerry walked from home to school, then from the school to the park. What is his total displacement?

- a) 2 km
- b) 5 km
- c) 8 km
- d) 10 km

11. A person walks 50 meters directly north, stops, and then travels 32 meters directly south. What is their displacement?

- a) 82 meters
- b) 18 meters
- c) 28 meters

12. After completing one trip on a roller coaster, the roller coaster's _____ is zero.

- a) displacement
- b) reference point
- c) length
- d) distance

13. If a car moves 12 km North, 19 km East, and 12 km South, what is its displacement?

- a) 31 km
- b) 12 km
- c) 19 km, East
- d) 43 km, East

14.



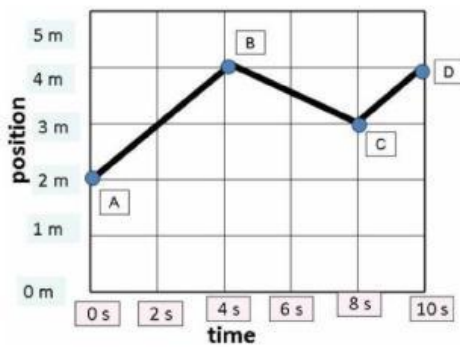
If a boomerang is thrown 20 m in a straight line and returns exactly to the spot it was thrown what is its displacement?

- a) 20 m
- b) 40 m
- c) -20 m
- d) 0 m

15. Scott travels north 5 miles and then goes west 3 miles before coming straight back south 2 miles. What is his distance?

- a) 10
- b) 7
- c) 8
- d) 6

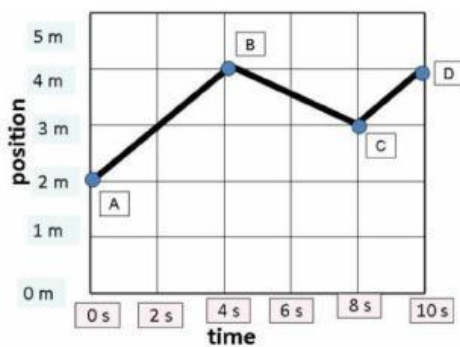
16.



What is the total displacement of the object represented in this motion graph?

- a) 5 meters
- b) 4 meters
- c) 2 meters
- d) 0 meters

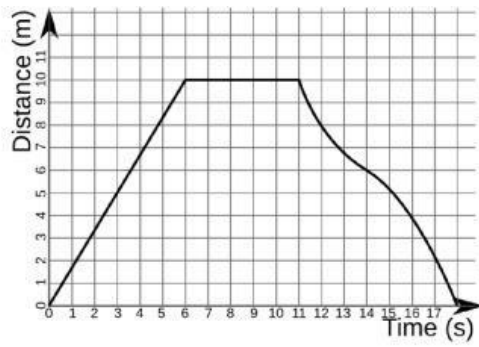
17.



What is the total distance of the object represented in this motion graph?

- a) 5 meters
- b) 4 meters
- c) 2 meters
- d) 0 meters

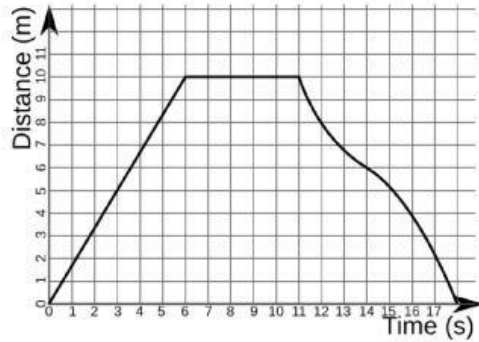
18.



What is the total distance of the object represented in this motion graph?

- a) 0 meters
- b) 10 meters
- c) 11 meters
- d) 20 meters

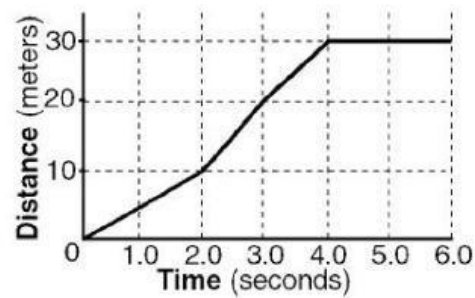
19.



What is the total displacement of the object represented in this motion graph?

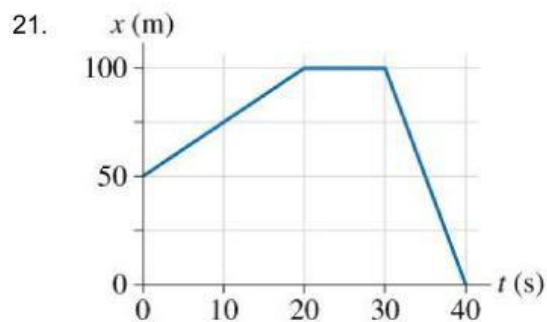
- a) 0 meters
- b) 10 meters
- c) 11 meters
- d) 20 meters

20.



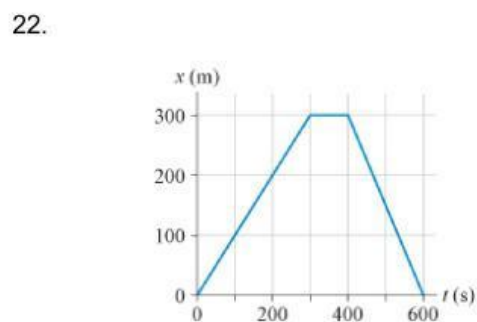
What is the total displacement of the object represented in this motion graph?

- a) 0 meters
- b) 20 meters
- c) 30 meters
- d) 60 meters



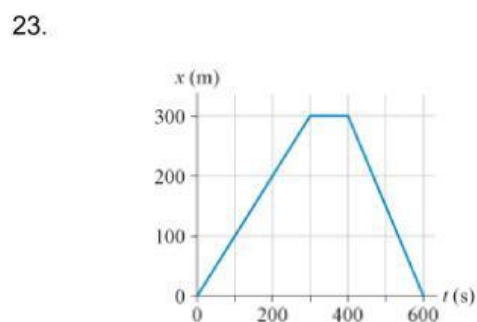
What is the total distance of the object represented in this motion graph?

- a) 50 meters
- b) - 50 meters
- c) 150 meters
- d) 100 meters



What is the total distance of the object represented in this motion graph?

- a) 0 meters
- b) 300 meters
- c) 450 meters
- d) 600 meters



What is the total displacement of the object represented in this motion graph?

- a) 0 meters
- b) 300 meters
- c) 450 meters
- d) 600 meters