

10 Math Practice**Speed and Distance-Time Graphs**

Solve the equations to find the value for each question. Include the appropriate units in your answer.

1. $S = 600 \text{ m} / 15 \text{ s}$

2. $S = 240 \text{ km} / 4 \text{ hr}$

3. $S = 75 \text{ mi} / 2.5 \text{ hr}$

4. $S = (35 \text{ m} - 20 \text{ m}) / (10 \text{ s} - 5 \text{ s})$

5. $S = (46 \text{ m} - 18 \text{ m}) / (10 \text{ s} - 3 \text{ s})$

6. $S = (49 \text{ m} - 21 \text{ m}) / (14 \text{ s} - 7 \text{ s})$

Use the graph or the formula for speed to answer questions 7–12.

7. A trucker made a delivery to a town 180 km from his start point. The graph shows the time and distance for the trip. During which part of the trip was the trucker driving 55 km/h?

8. The trucker stopped at a truck stop for a one-hour lunch break. During which part of the trip did he take his lunch break?

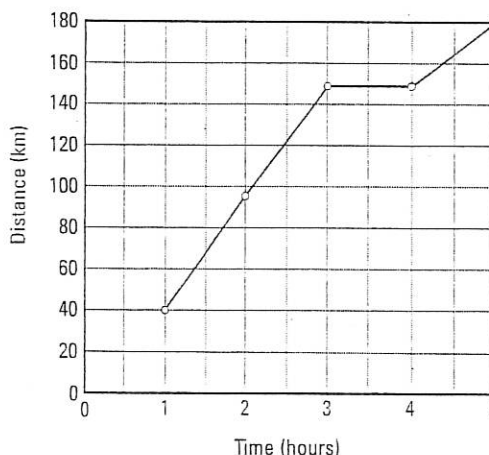
9. What was the trucker's speed as he drove from the truck stop where he had lunch to his final destination?

10. A jogger runs along a road for a distance of 2700 m. If it takes her 900 seconds to run that distance, what is her speed?

11. A car travels 40 miles in the first hour and 50 miles in the second hour. What is the car's average speed over the entire trip?

12. A bicyclist travels 10 km in half an hour, then rests for half an hour, then travels 50 km in three hours. What was the bicyclist's average speed over the entire trip?

Distance-Time Record for Trip A



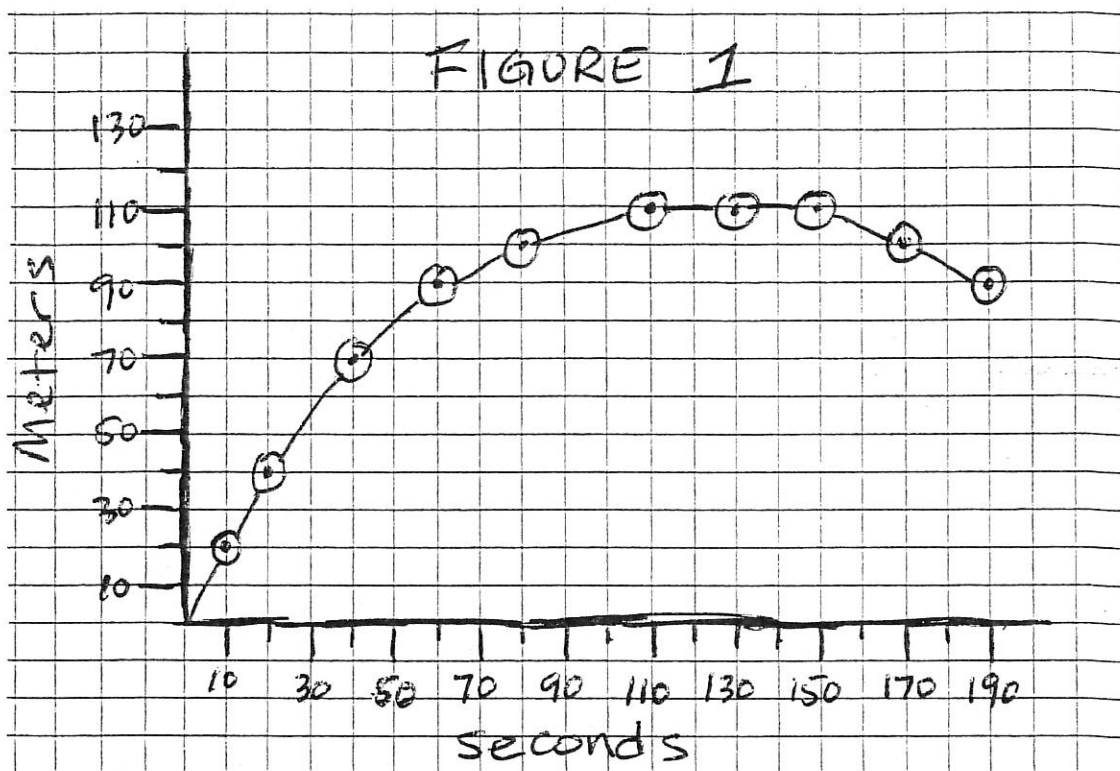


Figure 1 above shows the movement of a skateboarder coasting south down a hill. His movement was measured in meters and seconds, and the data were graphed. Look at the graph and answer the following questions.

1. What was the velocity of the skateboarder at 10 seconds?
2. What was the velocity of the skateboarder at 75 seconds?
3. How far did the skateboarder roll?
4. What was the average velocity of the skateboarder for his entire roll?
5. Between what times what the skateboarder not moving – just standing still?
How do you know?
6. What did the skateboarder start doing after 150 seconds?
How do you know?