

## 40. How to calculate speed, distance and time



### Scenario Questions:

1. Sarah runs a 5 kilometer race in 30 minutes. What is her average speed in km/hour?

2. A car travels 400 kilometers in 4 hours. What is its average speed in km/hour?

3. It takes a plane 2 hours to fly a distance of 1,200 kilometers. What is its average speed in km/hour?

4. Pedro rides his bike at a speed of 15 kilometers per hour. How long will it take him to travel a distance of 45 kilometers?

5. The sound of thunder is heard 5 seconds after seeing the lightning. If sound travels at a speed of 343 meters per second, how far away is the lightning?

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### Scenario Questions:

6. A train travels at a speed of 120 kilometers per hour. If it takes 3 hours to reach its destination, what is the total distance traveled?

7. A swimmer covers a distance of 500 meters in 10 minutes. What is the swimmer's average speed in km/hour?

8. A bus is traveling at a speed of 60 miles per hour. How long will it take for the bus to travel a distance of 180 miles?

9. A bicycle travels at a speed of 8 meters per second. How far will it travel in 10 seconds?

10. A runner completes a marathon of 42.195 kilometers in 4 hours and 30 minutes. What is the runner's average speed in km/hour? Round your answer to 3 significant figures.

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## Scenario Questions: **Answers**

1. Sarah runs a 5 kilometer race in 30 minutes. What is her average speed in km/hour?

**1. Her average speed is 10 kilometers per hour.**

2. A car travels 400 kilometers in 4 hours. What is its average speed in km/hour?

**2. The average speed of the car is 100 kilometers per hour.**

3. It takes a plane 2 hours to fly a distance of 1,200 kilometers. What is its average speed in km/hour?

**3. The average speed of the plane is 600 kilometers per hour.**

4. Pedro rides his bike at a speed of 15 kilometers per hour. How long will it take him to travel a distance of 45 kilometers?

**4. It will take him 3 hours to travel a distance of 45 kilometers.**

5. The sound of thunder is heard 5 seconds after seeing the lightning. If sound travels at a speed of 343 meters per second, how far away is the lightning?

**5. The lightning is approximately 1,715 meters away.**

6. A train travels at a speed of 120 kilometers per hour. If it takes 3 hours to reach its destination, what is the total distance traveled?

**6. The total distance traveled is 360 kilometers.**

7. A swimmer covers a distance of 500 meters in 10 minutes. What is the swimmer's average speed in km/hour?

**7. The swimmer's average speed is 3km per hour.**

8. A bus is traveling at a speed of 60 miles per hour. How long will it take for the bus to travel a distance of 180 miles?

**8. It will take the bus 3 hours to travel a distance of 180 miles.**

9. A bicycle travels at a speed of 8 meters per second. How far will it travel in 10 seconds?

**9. The bicycle will travel a distance of 80 meters in 10 seconds.**

10. A runner completes a marathon of 42.195 kilometers in 4 hours and 30 minutes. What is the runner's average speed in km/hour? Round your answer to 3 significant figures.

**10. The runner's average speed is approximately 9.38 kilometers per hour.**