

Speed and Acceleration

Velocity

1. Tim rides his bike to school. He rides the 15 km trip to school in 1.5 hours, what was his average speed?
2. John is traveling to his grandma's house. He walks for 0.5 hours and travels 2 km. How fast was he going?
3. Steve goes to the store and back. If the store is .75 km from his house and it takes 0.1 hours to make it there and back, how fast was he going?
4. Rocky rides his bike with a speed of 10 km/hr. If he travels for 0.6 hours, how far did he travel?
5. Mike goes out for a bike ride and rides for an hour. If he averages 9 km/hr, how far does he travel?

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Acceleration

6. The car starts from rest at a stop sign and accelerates for 5 seconds. What is his rate of acceleration if he is going 15 m/s after 5 seconds?

7. A car traveling 12 m/s slows down at a constant rate for 4 seconds until it stops. What is its acceleration?

8. A jogger covers the last stretch of his race in 4 s. During that time, he speeds up from 5 m/s to 9 m/s. What is the runner's acceleration in this part of the race?

9. Harold rolls his ball down the bowling lane. The ball accelerates from 0 to 7 m/s in 2.5 seconds. What is the average acceleration?

10. I slowed down from 30 m/s to 20 m/s in 5 seconds. What is my rate of acceleration?