

## Velocity and Acceleration

1. What is the speed of a car that travels 150 km in 3.00 hrs? Is the car speeding on 84<sup>th</sup> st? (1.0 m/s = 2.23 mi/hr)
2. A vehicle travels 2345 m in 315 s toward the evening sun. What is its velocity?
3. What is the speed of a bus that travels 250.0 km in 2.00 hours?
4. Convert your answer from 3 to meters per second.
5. What distance will a car traveling 65 km/hr travel in 3.0 hrs?
6. What distance will be traveled if you are going 120km/hr for 30. min?
7. How long will it take to go 150 km traveling at 50 km/hr?
8. How long will it take to travel 200 km traveling 10 m/s?
9. If a rocket travels 5600. km in 3.00 hours, what is its speed?
10. Convert to m/s.
11. A car travels 240 km in 2.0 hrs and a sprinter travels a 100. m in 9.5 s. Which is traveling faster and by how much?
12. What is the acceleration of a car that goes from 40km/hr to 80 km/hr in 2 s?
13. What is the acceleration of a sprinter who finishes the race traveling 24m/s? She ran for 12 s.
14. A vehicle that goes from 5m/s to 45m/s in 8s. What is its acceleration?

15. What is the acceleration of a bike that goes from 38 km/hr to a stop in 4.5 s?
16. You drive a car from Milwaukee to Chicago in 95 min. What is its velocity in km/hr and speed in m/s? Were you speeding? Use 150km as your distance.
17. How far will you go in 3.0 min traveling 60. km/hr?
18. What is the acceleration of a car going from  $3.0 \times 10^1$  km/hr to  $1.20 \times 10^2$  km/hr in  $3.0 \times 10^1$  sec?
19. What is the acceleration of a vehicle that goes from 35 m/s to a stop in 35 s?
20. Convert 36 km / hr to m/s.