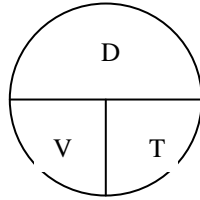


Velocity = Distance/Time  
Distance = Velocity x Time  
Time = Distance/Velocity



1. Calculate the average speed (in meters/sec) if a golf cart runs 140 meters in 10 seconds
2. Calculate the average speed (in Km/hr) of Charlie who runs to the store 4 Km away in 30 minutes?
3. Calculate the distance (in Km) that Charlie runs if he maintains the average speed from question 2 for 1 hour
4. A bicycle rider travels 50.0 Km in 2.5 hours. What is the cyclist's average speed?
5. What is the average speed (in miles per hour) of the car that traveled a total of 200 miles in 5.5 hours.
6. What is the definition of the word PER?
7. How much time would it take for the sound of thunder to travel 2000 meters if sound travels a speed of 330 meters per sec.
8. How much time would it take for an airplane to reach its destination if it traveled at an average speed of 790 Km/hr for a distance of 5000 kilometers/
9. An ant can travel approximately 30 meters per minute. How many meters could an ant move in 45 minutes?
10. If humans originated in Africa and migrated to other parts of the world, some time would be required for this to occur. At the modest rate of one kilometer per year, how many centuries would it take for humans originating in Africa to travel to China, some 10,000 Kilometers away?

**Equations:**

$$\text{Acceleration} = \frac{\text{Final velocity} - \text{Initial velocity}}{\text{Time}}$$

$$\text{Time} = \frac{\text{Final Velocity} - \text{Initial Velocity}}{\text{Acceleration}}$$

$$\text{Final Velocity} = (\text{Acceleration} * \text{Time}) + \text{Initial Velocity}$$

**Problems: In order to receive credit for this worksheet you MUST show your work. You can use a calculator but you must show all of the steps in the spaces provided.**

1. A roller coaster car rapidly picks up speed as it rolls down a slope. As it starts down the slope, its speed is 4 m/s. But 3 seconds later, at the bottom of the slope, its speed is 22 m/s. What is its average acceleration?
  
  
  
  
  
  
  
  
  
  
2. A cyclist accelerates from 0 m/s to 8 m/s in 3 seconds. What is his acceleration ? Is this acceleration higher than that of a car which accelerates from 0 to 30 m/s in 8 seconds?
  
  
  
  
  
  
  
  
  
  
3. A car advertisement states that a certain car can accelerate from rest to 70 km/h in 7 seconds. Find the car's average acceleration.
  
  
  
  
  
  
  
  
  
  
4. A lizard accelerates from 2 m/s to 10 m/s in 4 seconds. What is the lizard's average acceleration?
  
  
  
  
  
  
  
  
  
  
5. If a Ferrari, with an initial velocity of 10 m/s, accelerates at a rate of 50 m/s/s for 3 seconds, what will its final velocity be?