Physics 11

**Velocity Worksheet**

Show all your work on a separate piece of paper and all final answer must show units and correct significant figures.

35 marks

1. What is the average velocity of a snow boarder who travels 1200 m downhill in 55.3 s? (3 marks)
2. Tom drives from Maple Ridge to Vernon, a distance of 475 km, in a time of 4.7 hours. What was his average velocity? (3 marks)
3. A bullet fired from a handgun travels 4380 m in a time of 7.3 s. What is its average velocity? (3 marks)
4. An electron travels 27000 m in a time of $1.2 \times 10^{-4}$ s. What was its average velocity? (3 marks)
5. Joan throws out a runner at home plate from shortstop. The ball travels a distance of 49 m while travelling at 23 m/s. How much time does it take the ball to travel this distance? (3 marks)
6. An airplane travels at 230 m/s for 2.5 hours. How far does the plane travel? (3 marks)
7. Willie swift shoots a hockey puck into a goal at 35.8 m/s from a distance of 55.0 m. How much time elapses for the puck to enter the net? (3 marks)
8. A police officer sees the flash of a gun in the hands of Terrible Tom, the burglar, 125 m away. The bullet can travel at 495 m/s. How much time does she have to dodge the bullet? (3 marks)
9. Ryan takes his car on the following trip: drives at 85 km/h for 1.4 h, then drives at 55 km/h for 20 min., then drives at 110 km/h for 2.0 h, and finally drives at 30 km/h for 0.50 h. What is the total distance travelled in this trip? (3 marks)
10. A high speed train between Shi-Obuku and Tokyo averages 284.5 km/h. If the trip takes 58.12 min to complete, how far apart are the two cities? (3 marks)
11. The Canadian bobsled team takes their turn at the Whistler Bobsled run covering the 2.4 km course at an average velocity of 32.15 m/s. How much time does this bobsled run take? (3 marks)

**BONUS ONLY!**

Caddie shack hits a golf shot that travels at 114.8 km/h. The shot strikes a tree and bounces back to the tee at 25% of its original speed. The ball required 3.82 s for the round trip. How far away is the tree? (3 marks)