**Science 10 Physics WORKSHEET – CONVERTING UNITS**

Complete the following on a SEPARATE piece of paper

Unit Convertors: (note: you will NOT be given these on checkpoints, tests or the Provincial)

1 hour = 60 min 1 min = 60 seconds

1 km = 1000 m 1 m = 100 cm = 1000 mm

So to convert 2.2 hours into minutes, I simply multiply by: \_\_\_\_\_\_\_\_\_\_\_\_

To convert 1.3 hours into seconds, I multiply by: \_\_\_\_\_\_\_\_\_\_\_\_

To convert 58 000 seconds into hours, I multiply by: \_\_\_\_\_\_\_\_\_\_\_\_

Convert the following times. All units must be shown as well as cancellations.

1. 20 minutes to seconds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 6.5 hours to minutes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Multiple Steps:

1. 0.6 days to hours \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 4.5 years to seconds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 453 seconds to hours \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. 0.35 minutes to years \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If I want to convert m/s to km/h, I would follow the following steps:

 

 If I want to convert km/h to m/s, I would follow these steps:

 

2. Convert the following speeds. Show all units as well as cancellations.

1. 25 km/h to m/s
2. 150 km/h to m/s
3. 2.0 m/s to km/h
4. 50 m/s to km/h

3. a) An average person is 175 cm tall. How many people could you stack one on top of another to reach the top of the CN tower, which is 553 m?

 b) If 1 inch = 2.54 cm and 12 inches = 1 foot, how tall is the CN tower in feet?

4. a) The maximum speed reached by a standing skateboarder is about 14.7 m/s. Would the skateboarder get a ticket in a 30 km/h speed zone?

 b) A snail crawls 100 times slower than a normal human walk (3 km/h). How many times slower than the skateboarder is the snail?

**Solutions**:

1 a) 1200 s b) 390 min c) 14.4 h d) 1.4 x 108 s e) 0.126 h f) 6.7 x 10-7 yr

2 a) 6.9 m/s b) 41.7 m/s c) 7.2 km/h d) 180 km/h

3 a) 316 people b) 1810 ft