**Math Boot Camp**

Unit Conversions

**Steps:**

1. Write the answer unit
2. Find a unit conversion factor that involves the answer unit
3. Write a unit conversion factor based on the sentence.
4. Find a value in the problem that has the same units that appear on the *bottom of the unit conversion factor.*
5. Check to see that the units cancel.

6. Multiply

Example: “An experiment is done to see the health effect of large amounts of aspirin on rats. Each rat gets 22 grams of aspirin. If 60 rats are used in the experiment, how many grams of aspirin will be used?”

Practice: Show your work!!!

1. Apples sell for 43 cents a pound. How much do 20 pounds of apples cost?
2. The new hybrid car gets 65 miles per gallon. How many miles can you drive on 10 gallons of gas?

 3. Nida can bike 2400 meters in one day. At this rate, how many meters will she bike in an hour?

Problems that require more than one unit conversion factor

Example: How many seconds are there in 5 hours?

Practice: Show your work!!!

1. Sarah can study 20 pages per night. Each page has three homework problems. If she studies for 3 nights how many homework problems will she do?

2. Dr. Michael prescribes 300 mg a day of medicine to a patent. Each pill has 15 mg of medicine. How many pills will the patient need for 7 days?

3. A solution contains 5 grams of glucose per 100 milliliters. Each mole of glucose weighs 20 grams. How many moles are there in 200 milliliters of the glucose solution?

4. On the planet Venus, everyone earns 80 Quatloos a day. One snickers bar costs 7 Quatloos. How many Snickers’s can be purchased if someone works for 3 days?

1. The mount of deforestation that is occurring worldwide is estimated to be 80,000 acres per day. How much is this in hectares per year? (1 acre= .40 hectare)
2. How many hours are in 5 1/2 weeks?

7. How many inches are there in 110 yards? (1 foot = 12 inches, 3 feet = 1 yard)