Name_____

Honors Chemistry Dimensional Analysis

You must show dimensional analysis set up to receive credit on this worksheet.

Conversion Factors (you will need a couple of commonly known ones too)

1 in = 2.54 cm	1 lb = 4.45 N	1 mile = 1.6 km	6.5 cm^2 = 1 in^2
2.2 lbs = 1 kg	5 mL = 1 tsp	1 cup = 0.24 L	3.8 L = 1 gal

1. Cleveland is 25 miles away, how many km is that?

2. A recipe calls for 15 tsp of butter, how many mL should you add?

3. How many mL are in a 1.0 L of Pepsi?

4. An average car weighs 1400 lbs, how much is that in kg?

5. If a recipe calls for 5 cups, how many mL are needed?

6. How many seconds are in 7 days?

7. Freeway speed limits are 55 miles/hr, how many km/hr is that?

8. Bicycle tires are inflated to 60 lbs/in^2, how many N/cm^2 is that?

9. Hair grows at a rate of 1 in/ 20 days, how fast is that in mm/ day?

10. Major league fast balls go 104 miles/ hr, how fast is that in m/s?