WS Dimensional Analysis Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period \_\_\_\_\_\_

1. In the Tour de France, cyclists ride 3349 km over 20 days. How many miles do they go?

[Hint: watch for unimportant information!] [Hint #2: 1 mile = 1.6093 km]

2. After a nice meal, perhaps you’d finish it off with a pound cake (1.00 lb) for dessert.

What would the name of this cake be in grams?

3. The moon is 239,000 miles away. How many feet is it from earth?

4. Lake Michigan holds 1.3 x 1015 gallons of water. How many liters is this?

5. Saffron costs $368.00 per ounce. Determine how many grams you can purchase for $15.00.

6. A Pleasant Valley High School senior was applying to college and wondered how many applications she needed to send. Her counselor explained that with the excellent grade she received in chemistry she would probably be accepted to one school out of every three to which she applied. [*3 applications = 1 acceptance*] She immediately realized that for each application she would have to write 3 essays, [*1 application = 3 essays*] and each essay would require 2 hours work *[1 essay = 2 hours*]. Of course writing essays is no simple matter. For each hour of serious essay writing, she would need to expend 500 calories [*1 hour = 500 calories*] which she could derive from her mother's apple pies [1 pie = 1000 calories]. How many apple pies would her mom need to make her in order to gain acceptance to 10 colleges? I'll help you get started.... 10 acceptances [ ] [ ] etc.

7. A family pool holds 10,000 gallons of water. How many cubic meters is this?

8. How many feet per second is a wave going if it travels a distance of one mile in 7.35 seconds?

9. Chicago uses 1.2 x 109 gallons of water /day. How many gallons per second must be

pumped from the lake every second to supply the city?

10. Sixty miles/ hour is how many ft/sec?