

# W-PS Physical Science week 6

8.060000

$$8.06 \times 10^6$$

7.300500

$$7.3005 \times 10^6$$

9.811000

$$9.811 \times 10^6$$

3500000000

$$3.5 \times 10^9$$

3+1=4  
0.00078

$$7.8 \times 10^{-4}$$

5+1  
0.00000813

$$8.13 \times 10^{-6}$$

0.07005  
12

$$7.005 \times 10^{-2}$$

0.2113

$$2.113 \times 10^{-1}$$

## Dimensional Analysis

calories in one chicken McNugget 193 calories  
for 4 nuggets

1 lb of fat = 3500 calories

World's Largest Person

1,400 lbs

200lbs man  
gain 1200lbs

$$1200 \cancel{\text{lbs}} \times \frac{3500 \cancel{\text{cal}}}{1 \cancel{\text{lb}}} \times \frac{4 \text{ nuggies}}{193 \cancel{\text{cal}}} = 87,047 \text{ nuggies}$$

How many seconds do you have to live?

100 years old

$$100 - 10 = 90$$

$$90 \text{ yrs} * \frac{365 \text{ day}}{1 \text{ yrs}}$$

$$1 \text{ year} = 365 \text{ days}$$

$$1 \text{ day} = 24 \text{ hrs}$$

$$1 \text{ hr} = 60 \text{ min}$$

$$1 \text{ min} = 60 \text{ sec.}$$

$$\boxed{90 \text{ yrs}} * \frac{365 \text{ days}}{1 \text{ yrs}} * \frac{24 \text{ hr}}{1 \text{ day}} * \frac{60 \text{ min}}{1 \text{ hr}} * \frac{60 \text{ s}}{1 \text{ min}} = 2.8 * 10^9 \text{ seconds}$$

1 burrito = 6 inches long

distance from  
earth to moon

238,900 miles

$$\left[ \frac{1 \text{ burrito}}{6 \text{ inches}} \right]$$

$$12 \text{ in} = 1 \text{ ft} \quad 5280 \text{ ft} = 1 \text{ mi}$$

$$238,900 \text{ miles} * \frac{5280 \text{ ft}}{1 \text{ mi}} * \frac{12 \text{ in}}{1 \text{ ft}} * \frac{1 \text{ burrito}}{6 \text{ in}}$$

$$2.5 * 10^9 \text{ burritos}$$

How many inches in 50 yards

$$\left[ 1 \text{ yard} = 3 \text{ feet} \right] \quad 1 \text{ foot} = 12 \text{ inches}$$

$$50 \text{ yd} * \frac{3 \text{ feet}}{1 \text{ yard}} * \frac{12 \text{ inches}}{1 \text{ ft}}$$

1,800 inches

Quiz 4  
due tonight!

Quiz 5  
due Oct 21<sup>st</sup>

HW  
supplemental  
Quiz 6 (Fri)  
(due Oct 28<sup>th</sup>)