

Notes Day 2

Measurements of Physics

- **Precision** refers to the degree of exactness with which a measurement is made – measured with same result 3 times.
- **Accuracy** describes how close a measured value is to the true value.

- The description of what kind of physical quantity is represented by certain measurement is called **units.**



Why
Units are
important

SI Base Units include

Length	<u>Meters</u>	<u>m</u>
Volume	<u>Liters</u>	L
Mass	<u>Kilogram</u>	kg
Time	<u>Seconds</u>	s
Temperature	<u>Kelvin</u>	K

- **Derived units** are units that are formed by combining base units.
- Speed is length / time = **meters/seconds**

- SI is the standard measurement system used for science.



\$1,000,000

\$500,000

\$300,000

\$175,000

\$100,000

\$50,000

\$25,000

\$10,000

\$5,000

\$2,000

\$1,000

FOX



PG



Conversions in 6 steps

- 1. Write the number and unit given
- 2. Write a $\times \frac{\text{-----}}{\text{-----}} =$ after the number and unit
- 3. Write the unit you want to get rid of on the bottom
- 4. Write the unit you want to get on the top
- 5. Plug in the numbers given you that are equal
- 6. Do the math

Convert 50 miles to feet.

5280 feet = 1 mile

1. Write the number and unit –

50 miles

2. Write x ----- = after the number and unit

50 miles x ----- =

3. Write the unit you want to get rid of on the bottom

$$50 \text{ miles} \times \frac{\text{-----}}{\text{miles}} =$$

4. Write the unit you want to get on the top

$$50 \text{ miles} \times \frac{\text{feet}}{\text{miles}} =$$

5. Plug in the numbers given you that are equal

$$50 \text{ miles} \times \frac{5280 \text{ feet}}{1 \text{ mile}} =$$

- 6. Do the math

$$50 \text{ miles} \times \frac{5280 \text{ feet}}{1 \text{ mile}} = 264000 \text{ ft}$$

Miles cancel out since they are opposites - multiply
50 x 5280



I have 32 cm; how many inches is that?

Conversion Factors

$$\frac{1 \text{ inch}}{2.54 \text{ cm}}$$

32 cm

1 inch

2.54 cm

Show your work...

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ROUNDED ANSWER

TYPE 

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*Depending on the number of steps in this conversion, you may not need all three sections of this grid.