## Exp 02: Conversion

Part A: Rounding Off
$\mathrm{m}=2.4 \mathrm{grams}$

Part B: Significant Figures in Calculations

Part C: Converting Length

Part D: Converting Volume


Part E: Converting Mass

Part F: Percent by Mass

$$
2.4 \mathrm{~g} \cdot \frac{1 \mathrm{~cm}^{3}}{19.3 \mathrm{~g}}=0.1243523 \mathrm{~cm}^{3}
$$

Part G: Converting Temperature
2s.f. 35.6
$=0.12 \mathrm{~cm}^{3}$

## Exp 02: Conversion

Part D: Converting Volume

our observation for this part is 946 mL

- A Liter is slightly more than a quart.
-1 quart $=.946$ liter
- 1 liter $=1.06$ quart



## Exp 02: Conversion

Part E: Conversion for Mass
in SI units: $\quad 16.70$ kilograms
in Imperial units: 36.82 lbs


## Exp 02: Conversion

Part F: Percent by Mass

Find mass percent of about 1 gram of sugar in $15-20 \mathrm{~mL}$ of water.
Record each measurement with precision, and show calculations.

- Pre-weigh a 250 mL beaker.
- Add about 1 gram sugar.


## Sugar

- Record the new weight.
- Add about 15-20 mL water.
- Record the new weight.
- What is the percent of sugar in the total weight of the sugar water?


## Exp 02: Conversion

Part G: Converting Temperature

- Get a thermometer from the stock room.
- Start with a 250 mL Beaker
- Fill about $1 / 3$ of it with water
- Measure the temperature
- Double the volume with ice.

- Measure the temperature.
- Add about 5 gm rock salt
- Measure the temperature.

$$
\begin{aligned}
& K=C+273.15 \\
& F=C(1.8)+32 \\
& C=(F-32) / 1.8
\end{aligned}
$$

## Questions?



