Activity: Measuring Mass and Volume Analysis/Conclusion Questions

Directions:

- ❑ **Get a sheet of lined paper**
- ❑ **Write your name on the lined paper**
- ❑ **Answer the questions below**
- ❑ **Staple this paper to the back of your activity sheet**
- ❑ **Turn it into the box**

1. Explain why you have to zero a balance BEFORE measuring mass?

2. Calculate the volume of the box with the following dimensions:
   Length = 45 cm, Width = 30 cm, Height = 75 cm

3. Calculate the volume of the cylinder with these dimensions:
   Radius = 22.3 cm, Height = 47.3 cm

4. Maximus wants to find the mass of one sunflower seed, but his balance won't give him an accurate measurement of anything that small. So, he comes up with a plan. Maximus places 100 sunflower seeds on the balance and determines they have a mass of 8 grams. He does a little bit a math and finds the mass of one sunflower see. How does Maximus find out the mass of one sunflower seed?

   a. Maximus takes the number of sunflower seeds (100 seeds) and divides it by the mass of the sunflower seeds (8 g). He calculates the mass of one sunflower seed to be 12.5 grams.

   b. Maximus takes the mass of the sunflower seeds (8 g) and divides it by the total number of sunflower seeds (100 seeds). He calculates the mass of one sunflower seed to be 0.08 grams

   c. Maximus takes the mass of the sunflower seeds (8 g) and multiplies it by the total number of sunflower seeds (100 seeds). He calculates the mass of one sunflower seed to be 800 grams.

5. Classify each of the following as elements (E), compounds (C), heterogeneous mixture (M), homogenous mixture (Z), or none of these (X). Use the internet to help you with this question.

Carbon = _____	Human body = _____	Water = _____
Hydrochloric acid = _____	Table salt = _____	Methane = _____
Lightning = _____	Sodium = _____	Brass = _____