STE **Name**_____
Lab 1 **Partner**_____

Problem Solving Lab: the Density of Plastic

Problem: Find the density of the plastic in a container.

Materials allowed: plastic container, electronic balance, water, calculator (your own)

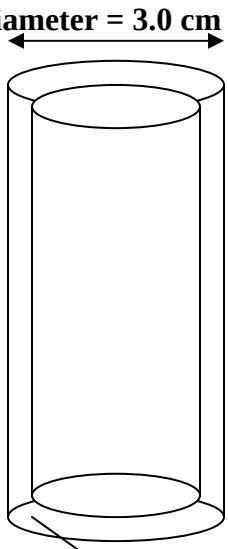
Important Constants and Measurements:

density of water at 20 ^{o}C = 1.0 g/cm^3
1 cm^3 = 1 ml

Formulas:

$$V = \pi r^2 h$$

Density = mass/volume



Thickness all around sides, top and bottom = 0.12 cm; assume the lid is a simple disk with a thickness of 0.12 cm just like the bottom.

Hints:

(1) You need to find the mass of two different things.
(2) If you calculate the volume of the water that fits into the cylinder, it is *not* equal to the volume(amount) of the plastic used to make the cylinder.
(3) You need to calculate the volume of two different cylinders.

<u>Procedure</u>: (steps you carried out)

<u>Data</u>: (measurements; don't forget units)

<u>Calculations</u>:

<u>Conclusion</u>: