Fraction Bottle

A fraction represents a part of a whole, like a dime is a part of a dollar or a piece of pie is part of the whole pie. The most common fraction, $\frac{1}{2}$, is the source of almost all the fractions you will need in daily life. The purpose of this assignment is to find and mark some common fractions on a plastic bottle.

Materials: You will need a plastic bottle, like the ones used for water or soda (any size will do).You will also need two identical containers, like drinking glasses or more plastic bottles.You will also need a Sharpie to write on the bottle.

Procedure: We want to find the half full point on the bottle (see right).

- 1. In order to do this begin by filling the bottle with water (to the top).
- 2. Pour the water out into the two drinking glasses being careful to put an equal amount in each glass. (figure 1).



- 3. Now discard the water in one glass and pour the contents of the other back into the bottle.
- 4. Put a mark on the bottle showing the water level. This is the half full point.

Now we want to mark the point where half of the remaining water reaches (half of a half).

- 5. Using the water remaining in the bottle, repeat the procedure above by distributing it equally between the two glasses.
- 6. Discard the water in one of the glasses and pour the remaining water back in the bottle.
- 7. Repeat the process above until you have made the four marks for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, and $\frac{1}{16}$.







