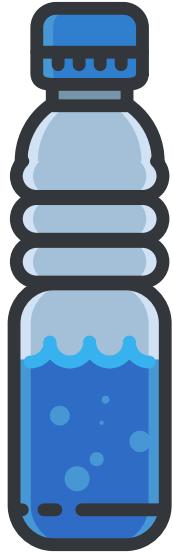
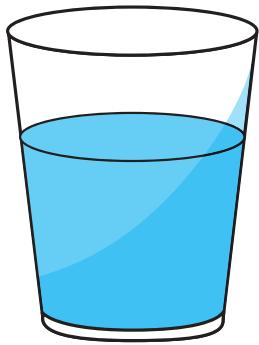


# USE YOUR BRAIN

## LOGIC CHALLENGE



### Cups of Two Sizes

CAN YOU USE THE WRONG TOOLS TO GET THE RIGHT MEASUREMENTS OR WILL YOUR BRAIN JUST END UP SOAKED IN FRUSTRATION?

#### ***The Challenge***

Humans have tools for pretty much everything these days, but sometimes we don't bring the right one for the job. However, with a little ingenuity, sometimes the wrong tool is good enough. Using only two strangely sized measuring instruments, we can make a lots of different accurate measurements that don't seem possible at first! See if you can figure out how.

#### ***The Assumptions***

- You have a 20 ounce bottle. It doesn't have any markings on it.
- You have a 12 ounce bottle. It doesn't have any markings on it.
- You have no limit on water and a funnel so that you can pour accurately.
- You only know how much water is poured into a container if you fill it to the top. You cannot estimate a partly filled container.

#### ***What you do***

Try to figure out how to **accurately** measure the following amounts of water. Estimating is **not** allowed! Some of them will be very easy, some will require several steps.

4 Ounces

8 Ounces

12 Ounces

16 Ounces

20 Ounces

24 Ounces

28 Ounces

32 Ounces

#### ***Make it real?***

If you have a 12 ounce can, a 20 ounce bottle, and a funnel, you can bring this puzzle to life! Make sure to find a place you can work and not make a mess (a tub, a sink, or in the yard) and ask your parents permission. If you have a measuring cup, you can use it to check your answers! Remember you probably won't pour perfectly so if your answer is a little off that's ok.