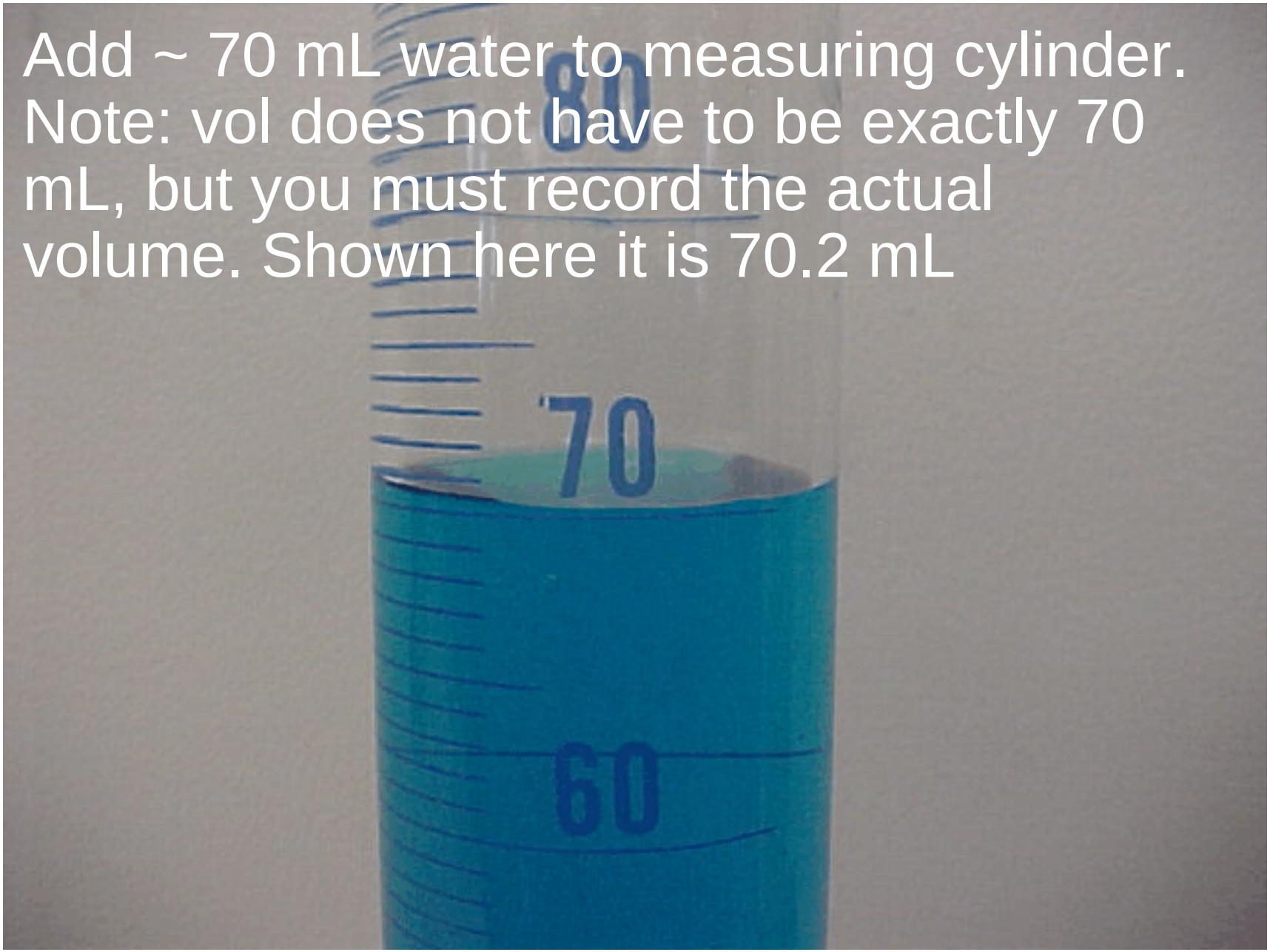
#2. Density of a solid

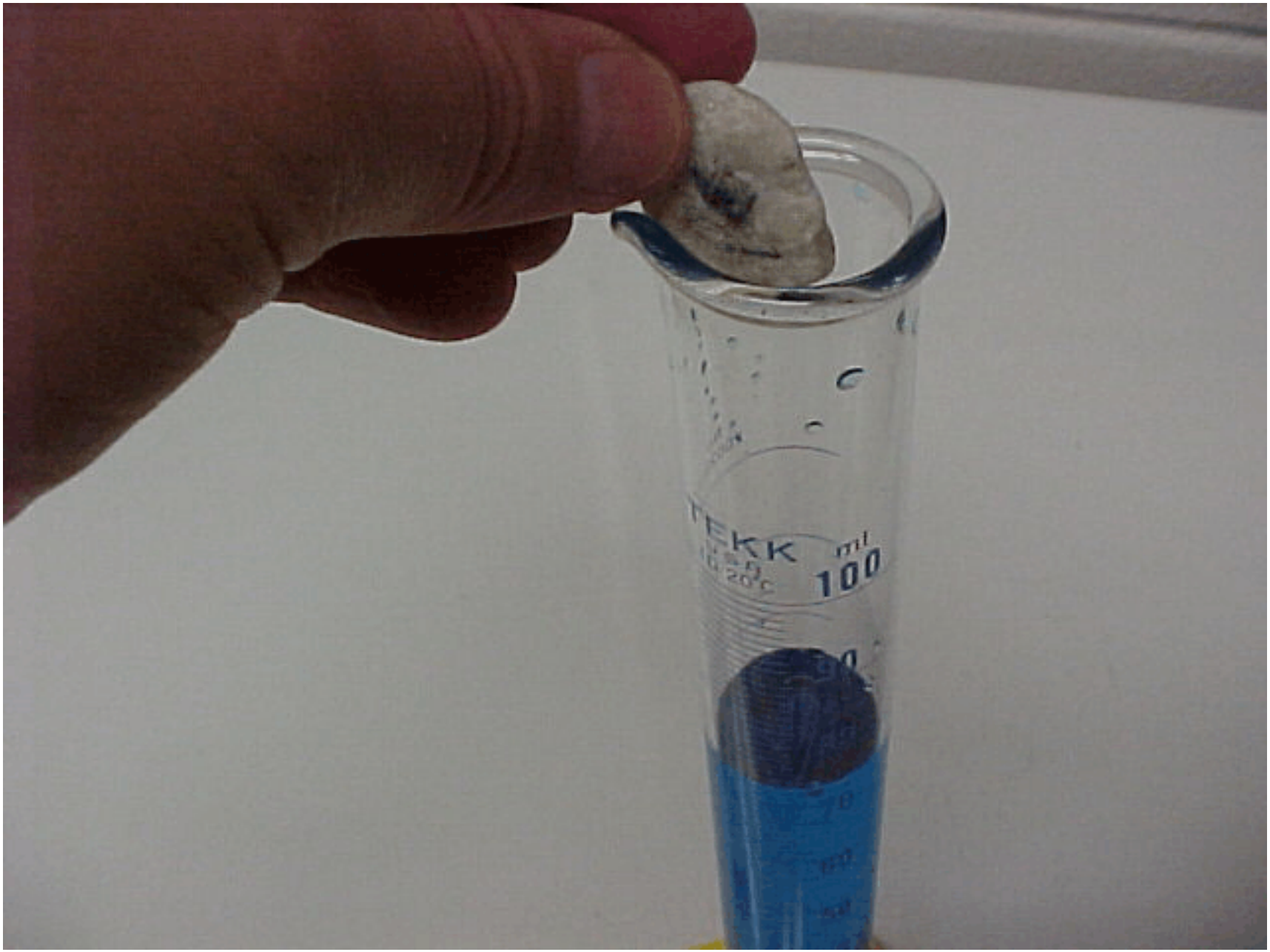
Follow lab manual instructions.

You have to measure the masses and volumes of 6 dry, marble chips. By graphing the results, you will determine the average density of the marble chips.

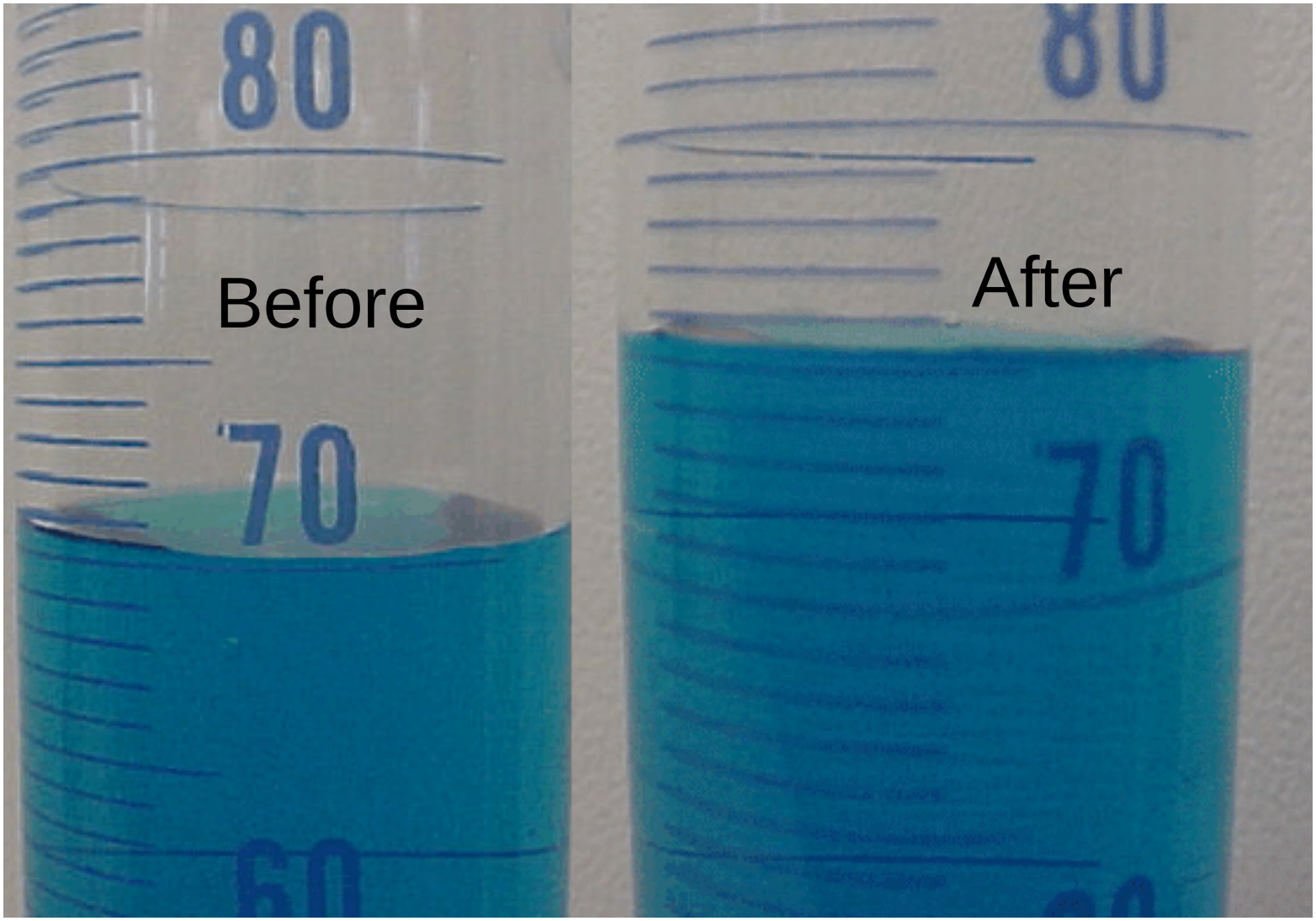
Make sure you remember which is which.

Determine each chip's volume by water displacement


Add ~ 70 mL water to measuring cylinder.
Note: vol does not have to be exactly 70 mL, but you must record the actual volume. Shown here it is 70.2 mL
80
70
60


TEKK
ml
100


Record the new vol on your data sheet.
Shown here: 75.3 mL
80
70


80
Before
70
60
80
After
70

Record the mass of each of the five chips. After the addition of each marble c the graduated cylinder, record the corresponding total volume of water cylinder:

Eg Initial vol = 70.2

Marble Chip No.	Mass (g)	Total Volume (mL)
Marble Chip 1		
Marble Chip 2		
Marble Chip 3		
Marble Chip 4		
Marble Chip 5		

ılations: (Use units and show your work in an orderly manner.)


Now add a second chip.
Vol goes up to 78.9 mL.
Record mass and vol to table
80
70

Continue adding the remaining 4 marble chips one at a time, recording each mass & volume.

Obviously, you won't get the same masses & volumes shown here in this example.

Plot total mass vrs total vol for the 6 chips - see graph in lab book.

Density is calculated from the slope (rise/run = mass/vol) on the graph. Use a sheet of graph paper for the most accurate answer (failure to do so will result in lose of points when grading)

Remember:

Measure and record data in lab.
Write reports at home