MUDDY MATH

$$d = \frac{m}{v}$$

Ratio

Eco-bricks

Volume

Mass

Density

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

Density is a ratio that compares matter per cubic unit of space that an object takes up or occupies.

For this exploration, measure mass with a scale using grams. Also, for volume, measure in milliliters.

Complete the table to practice writing the ratio (more specifically the rate) as a value (or unit rate).

Mass (grams)	Volume (milliliters)	Density (g/mL)
181	**500**	**0.362**
142	**500**	
213	**500**	

Work Space

Use this table for your eco-brick data.

Mass (grams)	Volume (milliliters)	Density (g/mL)

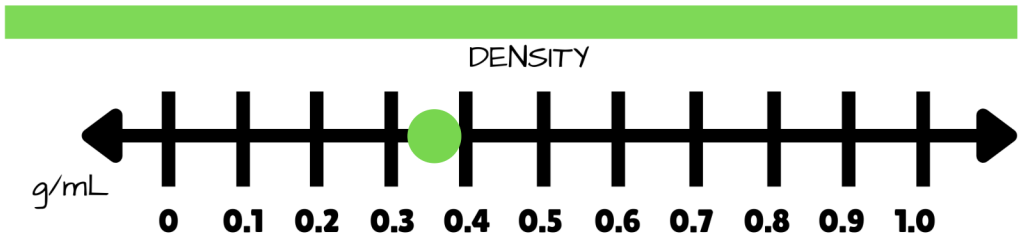
$$\frac{181\text{ g}}{500\text{ mL}}$$

One hundred eighty grams per five hundred milliliters

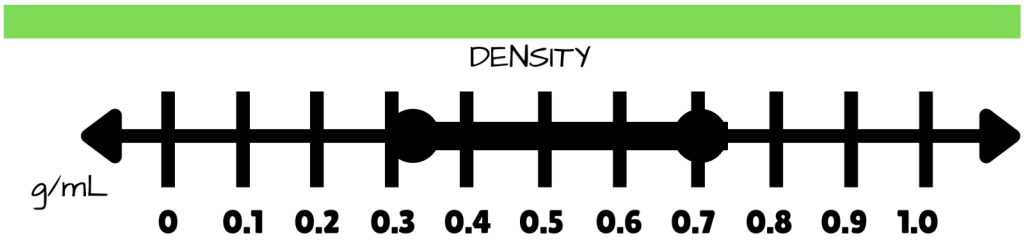
$$\frac{181\text{ g}}{500\text{ mL}} = \frac{362\text{ g}}{1000\text{ mL}}$$

$$d = \frac{m}{v}$$

$$500\text{ mL}\overline{)\,181\text{ g}} \quad 0.362\text{ g/mL}$$



$$\frac{167\ g}{500\ mL} < d < \frac{350\ g}{500\ mL}$$



Which of the values are within the bounds of acceptable density for eco-bricks.

0.162 0.740 0.333 0.400