

A **ratio** shows a relationship between two quantities.

Ratios are **equivalent** if they can be written as the same fraction in lowest terms.

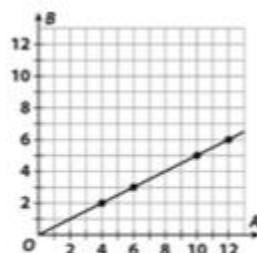
A **rate** is a ratio that shows the relationship between two different units of measure in lowest terms.

You can make a table of equivalent ratios. You can graph the equivalent ratios.

A	4	6	10	12
B	2	3	5	6

$$\frac{4}{2} = \frac{2}{1} \quad \frac{6}{3} = \frac{2}{1}$$

$$\frac{10}{5} = \frac{2}{1} \quad \frac{12}{6} = \frac{2}{1}$$



Tables help us organize information.

Number of gallons of gas	Gas (gallons)	3	4	7	10	16
Number of miles traveled	Miles traveled	102	136	238	340	544

Traveled 238 miles on 7 gallons of gas

Use the columns to write ratios.

$$\frac{\text{gas}}{\text{miles}} = \frac{7}{238}$$

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Use the ratios to write ordered pairs.

$$\frac{7}{238} \longrightarrow (7, 238)$$

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Problem 1

The table shows the cost of cereal and the amount of cereal for each amount of money. Write the ratios of ounces to cost.

Cereal (oz)	8	32	48	64	96
Cost	\$1	\$4	\$6	\$8	\$12

$$\frac{\text{ounces}}{\text{cost}} = \frac{8}{\$1} = \frac{32}{\$4} = \frac{48}{\$6} = \frac{64}{\$8} = \frac{96}{\$12}$$

Problem 2

Write the ratios as ordered pairs. Graph the ordered pairs and draw the line.

(8, 1), (32, 4), (48, 6), (64, 8), (96, 12)

