

7-1**RATIOS AND PROPORTIONS****RATIO**

The comparison of two numbers using division
(typically in reduced form)

$$\frac{a}{b} \quad a \text{ to } b \quad a : b$$

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most common

PROPORTIONS

An equation that states two ratios are equal

$$\frac{a}{b} = \frac{c}{d}$$

** Typically solved using Cross Multiplication*

Solve:

$$1) \frac{x}{4} = \frac{11}{-6}$$

$$2) \frac{-4}{7} = \frac{6}{2y + 5}$$

$$3) \frac{7}{z - 1} = \frac{9}{z + 4}$$

RATIO SAMPLE

Thirty girls tried out for 15 spots on the basketball team. What is the ratio of open spots to the number of girls competing?

The ratio of the measures of three sides of a triangle is 2:5:4, and its perimeter is 165 units. Find the measure of each side of the triangle.

The ratios of the measures of three angles of a triangle are 4:6:8. Find the measure of each angle of the triangle.