Ratios

A _____ is a comparison of two quantities by division.

The ratio of two red paper clips to six blue paperclips can be written in the following ways:

2 to 6

2:6

2 6



Just like fractions, we usually represent a ratio in simplest form.

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red paper clips
$$\cdots$$
 $\geq \frac{1}{6} = \frac{1}{3} \leftarrow \cdots$ The GCF of 2 and 6 is 2.

Example:

Several students named their favorite flavor of gum. Write the ratio that compares the number of students who chose fruit to the total number of students.

Favorite Flavors of Gum	
<u>Flavor</u>	# of Responses
Peppermint	9
Cinnamon	8
Fruit	3
Spearmint	1

Fruit: 3

Total: 9 + 8 + 3 + 1, or 21

fruit flavor responses
$$\cdots > \frac{3}{21} = \frac{1}{7} < \cdots$$
 The GCF of 3 and 21 is 3.

The ratio is $\frac{1}{7}$, 1 to 7, or 1:7.

So, 1 out of every 7 students preferred fruit-flavored gum.

You Try:

Use the stars to answer questions 1 and 2.



1) Write the ratio of black stars to white stars in three different ways.

2) Write the ratio of white stars to black stars in three different ways.

Use the table below to answer questions 3-6.

Favorite Pets	
Snake	15
Dog	10
Cat	6
Hamster	8
Fish	1



3) What is the ratio of people who chose snakes as their favorite pet to those who chose dogs?

4) What is the ratio of people who chose **cats AND dogs** to those who chose **hamsters**?

5) What is the ratio of those who chose **snakes** as their favorite pet to **everyone** that was surveyed?

6) What is the ratio of those who chose **cats** to those who chose **fish**?