

## Section 5.1 Notes: Ratios

### Key Vocabulary:

#### Ratio

a comparison of two quantities  
 → can be written a to b or a:b  
                           ↑          ↑  
                           quantity  quantity  
                           1          2

Based on the results to the favorite's questions in this hour, write the following ratios:

- |                     |                            |
|---------------------|----------------------------|
| 1) Pizza to Cheetos | 5) Math to Subject         |
| 2) Color to Green   | 6) Pasta : Food            |
| 3) Blue : Red       | 7) Science : Language Arts |
| 4) Cat to Rabbit    | 8) Animal to Dog           |

Ratios will depend on data collected in the different hours

Based on the ratios you wrote above, group them into the following ratio categories:

<u>Part to Part</u>	<u>Part to Whole</u>	<u>Whole to Part</u>
Pizza to Cheetos Blue to Red Cat to Rabbit Science : Language Arts	Math to Subject Pasta : Food	Color to Green Animal to Dog

## Key Vocabulary:

### Tape Diagram

diagram that looks like a segment of tape and can show the relationship between two quantities

### Using Tape Diagrams to solve ratio problems

Example) The ratio of **your monthly allowance** to **your friend's monthly allowance** is **5 : 3**. The monthly allowances total \$40. How much is each allowance?

To help visualize the problem, express the ratio 5 : 3 using a tape diagram.

\$25 ← YOU 

\$15 ← YOUR FRIEND 

8 total pieces of tape

$$\frac{\text{Larger/Whole total}}{\text{total}} = \frac{\text{total pieces of tape}}{\text{total}} = \text{what 1 piece of tape represents}$$
$$40 \div 8 = 5$$

### Example (you try)

In a recent survey, 50 students were asked what their favorite candy was. The ratio of **Snickers** to **Kit-Kats** was **7 : 3**. How many students preferred each of the candy options? Create a tape diagram to help you visualize the information and solve.

35 students Snickers

15 students Kit-Kats

Snickers 

Kit-Kats 

10 total pieces of tape

$$50 \div 10 = 5$$