## Ratios and Unit Rates

### What is a Ratio?

<u>**Ratio**</u> = comparison of 2 _____

<u>Writing Ratios:</u> A ratio can be written 3 ways.

<u>Example:</u> A bowl of fruit contains 8 oranges and 5 lemons. What is the ratio of oranges to lemons?

$$8:5 \qquad 8 \text{ to } 5 \qquad \frac{8}{5}$$

### Writing Ratios

A group of students had a choice of either hamburgers or pizza for lunch. There were 12 students - five chose pizza and seven chose hamburgers.

What is the ratio of pizza to hamburgers?

What is the ratio of hamburgers to pizza?

What is the ratio of pizza to students?

### Writing Ratios

In basketball you make 15 out of 25 free throws. Show the ratio of free throws made to free throws taken 4 different ways.

### Equivalent Ratios

Match the equivalent ratios. Not all cards have a match.

| | | | |
|---|---|---|---|
| 6:60 | 9:12 | 6 to 8 | 1:10 |
| $\frac{5}{2}$ | $\frac{5}{6}$ | 3:15 | $\frac{10}{4}$ |
| $\frac{3}{4}$ | 10:12 | $\frac{10}{5}$ | 1 to 5 |

ANSWER

### Rates

<u>**Rate**</u> = a ratio that compares 2 quantities measured in _____ units.

<u>Example:</u> $\dfrac{75 \text{ miles}}{3 \text{ hours}}$

## Unit Rates

**<u>Unit rate</u>** = a ratio that compares 2 quantities where one of the quantities is 1

To change rate to unit rate, _____ the numerator and denominator by the

_____.

<u>Example:</u>    $\dfrac{75 \text{ miles}}{3 \text{ hours}}$    **Unit rate =** _____

## Find the Unit Rate

$\dfrac{36 \text{ miles}}{4 \text{ hours}}$

$\dfrac{1 \text{ tablespoon}}{2 \text{ quarts}}$

## Using Unit Rates

Find the price per ounce for each box of cereal to determine which is the better deal.

**18 oz box**

$3.96

**24 oz box**

$4.80

## Using Unit Rates

If John can paint 1/8 of a wall in 11 minutes, how long will it take him to paint a room with 3 walls?

## Using Unit Rates

A 3-pound package of ground beef is $7.80.  A ½-pound package is $1.28.  What is the difference in the cost per pound between the larger and smaller packages of beef?

# Attachments

mental math division.ppt