

DAY 1

AGENDA

Warm-Up
Cake Time

Cornell Notes:
**Ratios/
Proportions
Proportion
or Not?**

HINT:

D \Rightarrow F

number (w/o deci pt.) / 100

then reduce

D \Rightarrow P

move decimal point
two places right

**WARM UP COMPLETE YOUR PRE-TEST ON
CASTLE LEARNING AND COMPLETE THE
TABLE BELOW IN YOUR BINDER**

| FRACTION | DECIMAL | PERCENT |
|---------------|------------------|---------|
| $\frac{1}{2}$ | | |
| | .25 | |
| | | 20% |
| $\frac{1}{3}$ | | |
| | . $\overline{6}$ | |



Ratios, Rates, Unit Rates and Proportions



| | |
|--|--|
| Topic: Ratios & Proportions | <u>Lesson Essential Question:</u> How can ratios and proportions help us with simple measurements? |
| What are they? | <p style="text-align: center;"><u>RATIO</u> used to compare parts of a whole or to compare amounts.</p> |
| Looks Like... | <p>written in the order that is stated in the question.</p> <p style="text-align: center;"><i>sugar to milk</i> = 2 to 1 <i>eggs : flour</i> = 4 : 3</p> |
| What do I do? | <p style="text-align: center;">Similar to fractions, ratios should be reduced (if possible)</p> |

Three ways to write ratios:

1) 6:2 simplified to 3:1

2) 6 to 2 simplified to 3 to 1

3) $\frac{6}{2}$ simplified to $\frac{3}{1}$



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|--|---|
| Topic: Ratios & Proportions | <p><i>Lesson Essential Question:</i> How can ratios and proportions help us with simple measurements?</p> |
| What is are they? | <p><u>PROPORTIONS</u> also know as equivalent ratios</p> |
| Looks Like... | <p>compares two or more ratios at the same time.</p> $\frac{\text{cups of flour}}{\text{cups of sugar}} = \frac{3 \text{ cups}}{2 \text{ cups}} = \frac{9 \text{ cups}}{x \text{ cups}}$ |
| What do I do? | <p>Cross Multiply: If the products are equal, then the ratios are in proportion.</p> |

A **proportion** is an equation that shows two equivalent ratios.

$$\frac{2}{1} = \frac{4}{2}$$

$$\frac{4}{2} = \frac{8}{4}$$

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

Read as $2/1 = 4/2$ as "two is to one as four is to two"

Cross Products in Proportions are equal

$$\frac{4}{8} = \frac{2}{4}$$

$$8 \times 2 = 4 \times 4$$

$$16 = 16$$

$$\frac{3}{5} = \frac{9}{15}$$

$$5 \times 9 = 3 \times 15$$

$$45 = 45$$

$$\frac{9}{6} = \frac{3}{2}$$

$$6 \times 3 = 9 \times 2$$

$$18 = 18$$

Lets see if we can find the missing \

$$\frac{5}{6} = \frac{N}{18}$$



Determine if the following are equivalent ratios.

$$\frac{2}{3} = \frac{10}{15}$$

$$\frac{4}{5} = \frac{8}{15}$$

✓ PROPORTION
or
NOT X

Which of the following are equivalent ratios?

$$1) \frac{2}{5} = \frac{6}{10}$$

$$2) \frac{8}{10} = \frac{4}{5}$$

$$3) \frac{4}{9} = \frac{10}{22.5}$$

$$4) \frac{6}{4} = \frac{3}{2}$$

Lets find the missing value in each proportion

A. $\frac{3}{5} = \frac{N}{1}$

B. $\frac{3}{8} = \frac{12}{x}$

C. $\frac{1}{6} = \frac{E}{4}$

D. $\frac{3}{9} = \frac{E}{2}$



**click the world
go to the last pag**

Mrs. Withers is baking a cake, that feeds eight people, for her cousin's birthday party. Below is the recipe:

**one cup of milk
two cups of sugar
three cups of flour
four eggs, beaten**

**Mix thoroughly.
Bake at 350° until done**

• What's the comparison of:

1) milk to sugar?

2) sugar to eggs?

3) eggs to flour?

4) flour to eggs?

• Suppose Mrs. Withers wants to bake a cake for twenty-four people. What happens to the amounts of each ingredient? Explain.



DAY 2

AGENDA

Warm-Up

7-ELEVEN
SLURPEE

Cornell Notes:

Unit Rates

THINK-PAIR-
SHARE

WARM UP COMPLETE THE TABLE BELOW

| FRACTION | DECIMAL | PERCENT |
|---------------|---------|---------|
| $\frac{2}{5}$ | | |
| | .60 | |
| | | 85% |
| $\frac{1}{8}$ | | |
| $\frac{3}{9}$ | | |

HINT:

D \leftrightarrow F

number (w/o deci pt.)/100
then reduce

D \leftrightarrow P

move decimal point
two places right

• Write 1.11 as a percent?

• Write 1.11 as a fraction?

7-ELEVEN SLURPEES

are sold in four sizes

| <u>size</u> | <u>price</u> |
|-------------|--------------|
| 8 oz. | \$3.60 |
| 12 oz. | \$5.52 |
| 16 oz. | \$7.44 |
| 20 oz. | \$9.15 |

Which size would
you choose?
Explain.

• *What is the cost per ounce
of the:*

1) 8 oz. cup?

2) 12 oz. cup?

3) 16 oz. cup?

4) 20 oz. cup?

• *To make a 20 ounce
SLURPEE, Jaylen purchased
an 8 ounce and a 12 ounce.
Justify Jaylen's decision.*

| | | |
|-------------------------------------|--|--|
| Topic: Unit Rates | <u>Lesson Essential Question:</u> How can unit rates help us make an better decisions about our money? | |
| What is a UNIT RATE? | <p style="text-align: center;"><u>UNIT RATES</u> a special comparison between a measurement to one unit.</p> | |
| Looks Like... | <p>written with a denominator of one.</p> <p><i>45 miles per hour = 45 ^{miles}/_{hour}</i> <i>\$2 per pound = \$2/_{pound}</i></p> | |
| What do I do? | <p style="text-align: center;">Divide:</p> <p>$\frac{2}{3}$ <u>meters</u> = $\frac{2}{3} \div \frac{1}{6}$ $\frac{1}{6}$ hour $\frac{2}{3} \bullet \frac{6}{1}$ $\frac{12}{3} = \frac{4}{1}$</p> <p><i>Ans: 4 meters per hour</i></p> | |

**As a TEAM, tell whether each situation is a
DEAL or a STEAL...**

Kevin:
pack of 20
pencils for \$2.

Tyce:
pack of 30
pencils for \$2.70.

Alex:
case of 50
pencils for \$4.60.

**DEAL
By How
Much?**

SAME

**As a TEAM, tell whether each situation is a
DEAL or SAME...**

**Jordan:
one subject
notebook for \$0.79.**

**Jaysha:
three one subject
notebooks for
\$2.25.**

**Cory:
five one subject
notebooks for
\$3.75.**

DEAL

SAME

**As a TEAM, rank each person from
FASTEST or a SLOWEST...**

Hezekiah:
runs 100-meters in
14.1 seconds

Kierra:
runs 50-meters in
7.03 seconds.

Cory:
runs 75-meters in
10.5 seconds

Jessica:
runs 25-meters in
3.5 seconds.

Lacey:
runs 100-meters in
14 seconds

FASTEST

SAME RATE

SLOWEST

DAY 3

WARM UP (PAGE 9) COMPLETE THE TABLE BELOW

AGENDA

Warm-Up

ELEVEN

MURPEE

Journal Notes:

Unit Rates

LINK-PAIR-

SHARE

MEWORK

Proportion

Self-Sheet

| OF | 10% | 20% | 30% | 50% | 80% |
|-----|-----|-----|-----|-----|-----|
| 100 | | | | | |
| 80 | | | | | 0 |
| 50 | | | | | |
| 40 | | | | | |
| 20 | | | | | |

How can this table help you find 130% of a number?

| | |
|---|--|
| <p>Topic: Unit Rates</p> | <p><u><i>Lesson Essential Question:</i></u> Why is it important to use colors while solving unit rate word problems? PAGE 10</p> |
| <p>STEPS: HIGHLIGHT / ormation.</p> <p>SET-UP oportion. hat are you mparing)?</p> <p>CROSS ULTIPLY to ive for x.</p> | <p>Three liters of soda cost \$3.00. At this rate, how much would 10 liters of soda cost?</p> |
| | |

| | |
|--|---|
| <p>Topic: Unit Rates</p> | <p><u><i>Lesson Essential Question:</i></u> Why is it important to use colors while solving unit rate word problems? PAGE 10</p> |
| <p>STEPS: HIGHLIGHT Information. SET-UP proportion. What are you comparing)? CROSS MULTIPLY to solve for x.</p> | <p>Four gallons of gasoline cost \$ 5.50. At this rate, how many gallons of gasoline did you purchase if it cost \$20.00?</p> |
| | |