DAY1

AGENDA

Warm-Up
Cake Time
Cornell Notes:
Ratios/ Proportions
Proportion or Not?

HINT:

D ⇨ F

number (w/o deci pt.)/100

then reduce

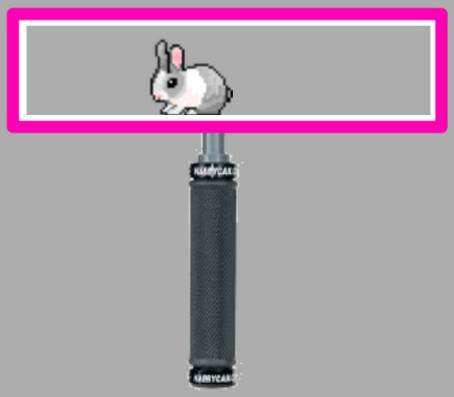
D ⇨ P

move decimal point two places right

WARM UP COMPLETE THE TABLE BELOW IN YOUR NOTEBOOK

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

Ratios, Rates, Unit Rates and Proportions



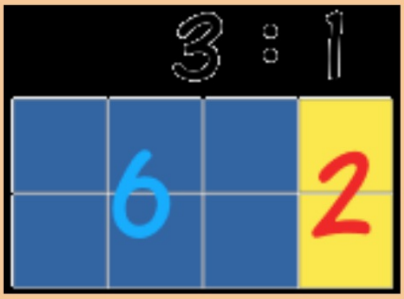
Topic: Ratios & Proportions	*Lesson Essential Question:* **How can ratios and proportions help us with simple measurements?**
What are they?	**RATIO** **used to compare parts of a whole or to compare amounts.**
Looks Like...	**written in the order that is stated in the question.** *sugar to milk = 2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

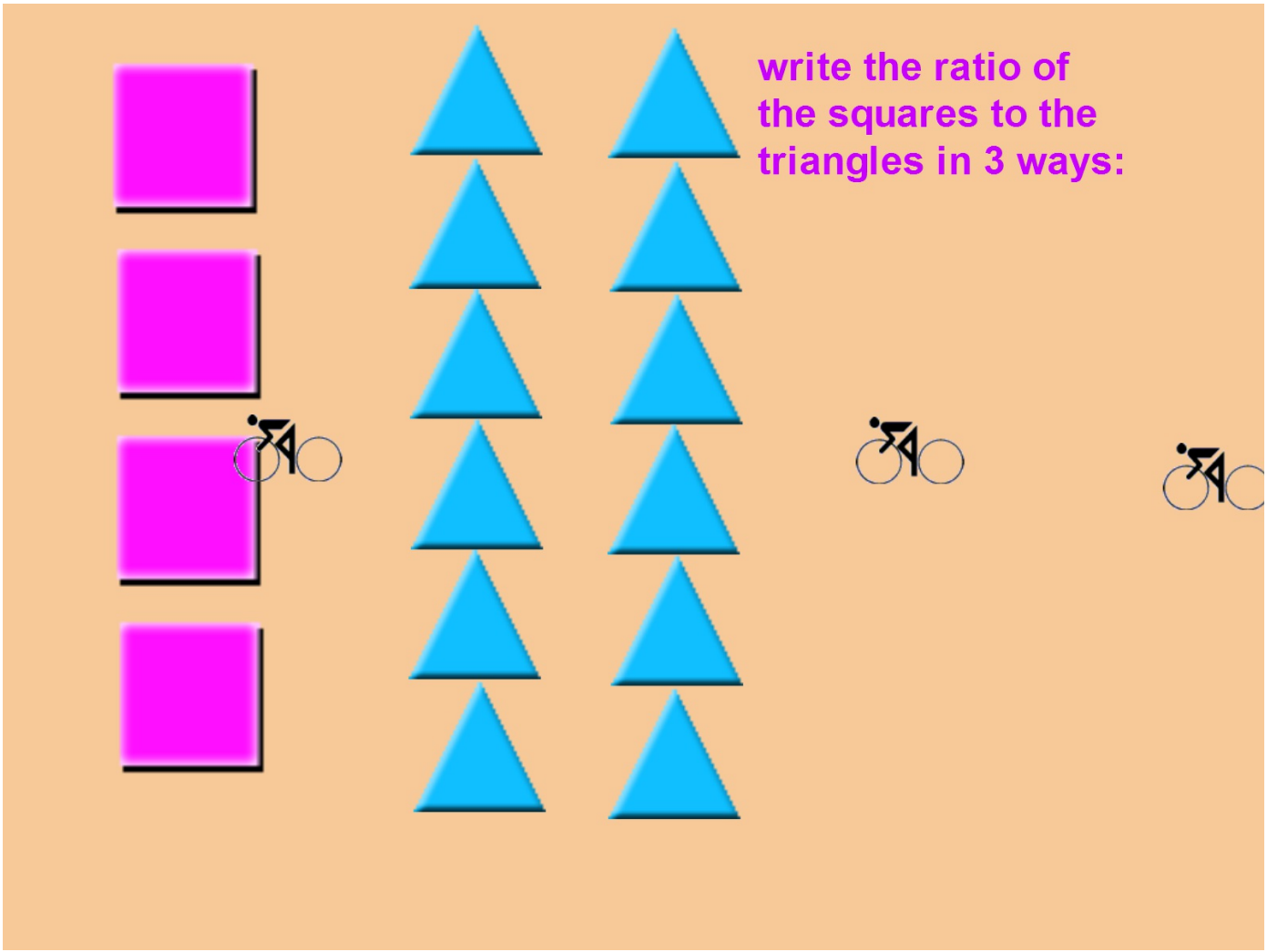
Thre ways to write ratios:

1) 6: 2 simplified to 3 : 1

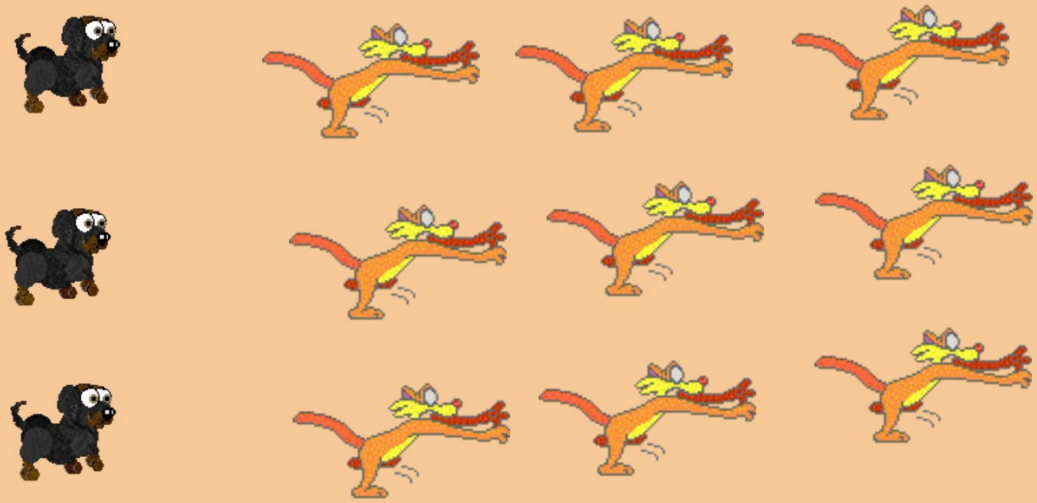
2) 6 to 2 simplified to 3 to 1

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




write the ratio of
the squares to the
triangles in 3 ways:

write the ratio of dogs to cats:



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

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

$$\frac{2}{1} = \frac{4}{2} \qquad \frac{4}{2} = \frac{8}{4} \qquad \frac{2}{1} = \frac{6}{3}$$

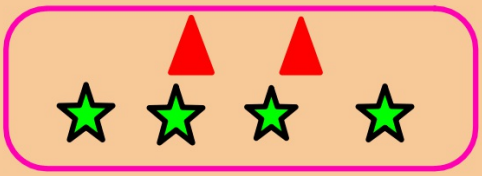
Read 2/1 = 4/2 as ...
"two is to one as four is to two"

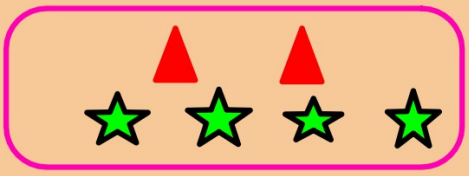
Lets write a proportion for the model...

First, write the ratio of triangles to s

$$\frac{\text{\# of triangles}}{\text{\# of stars}} =$$

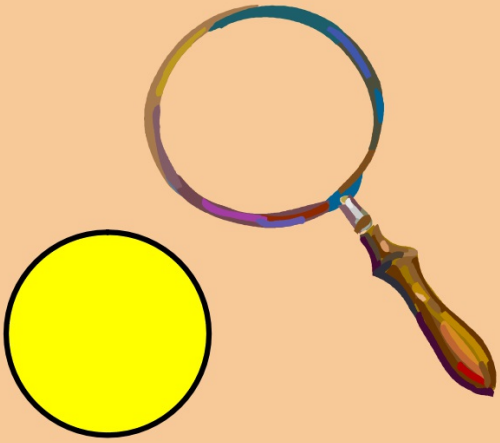
Next, separate the triangles and stars into 2 equal





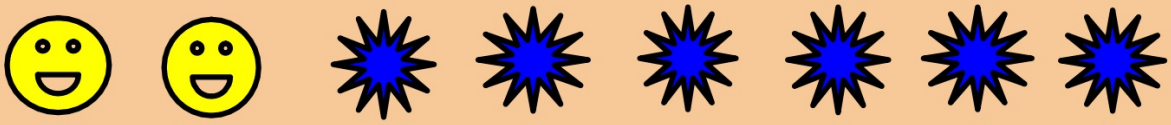
Now, write the ratio of triangles to stars in each group.

$$\frac{\text{\# of triangles}}{\text{\# of stars}} =$$



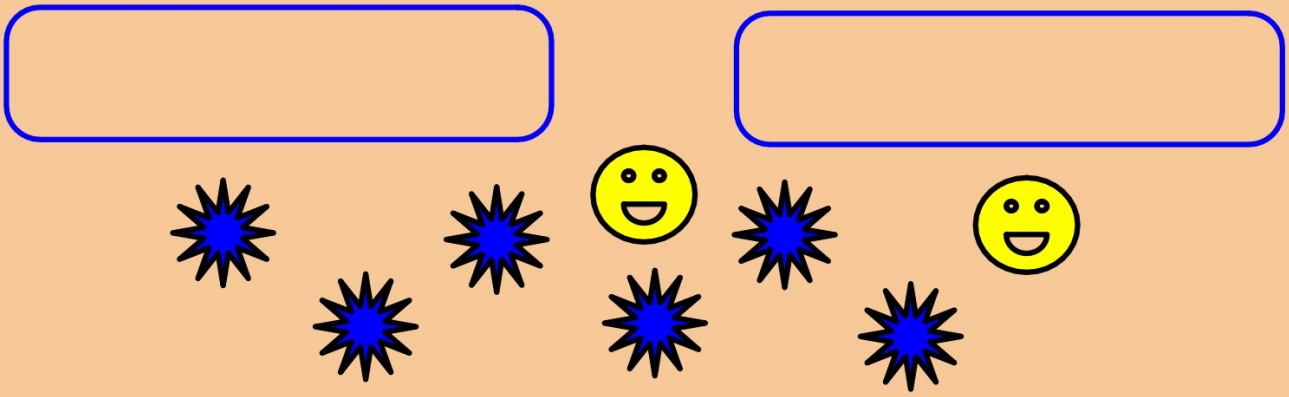
A proportion shown by the model is

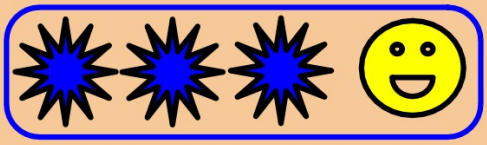
Write a proportion for the model

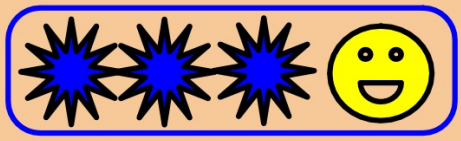


$$\frac{\text{\# of faces}}{\text{\# of spikey circles}} =$$

Separate into equal groups







Now, write the ratio of faces to spikey circles in each group.

<u># of faces</u>
# of spikey circles **=**

A proportion shown by the model is

Cross Products in Proportions are equal

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

$8 \times 2 = 4 \times 4$

$16 = 16$

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

$5 \times 9 = 3 \times 15$

$45 = 45$

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

$6 \times 3 = 9 \times$

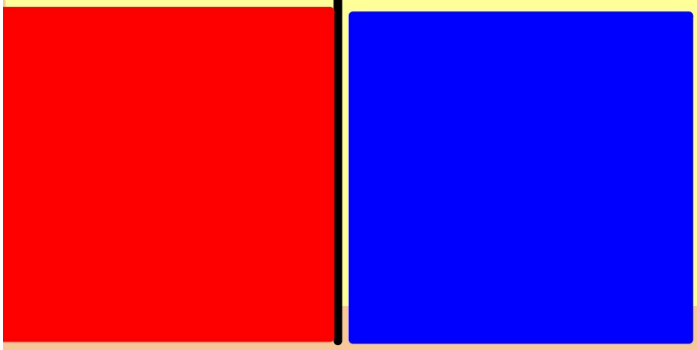
$18 = 18$

Lets see if we can find the missing value…

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

Determine if the following are equivalent ratios.

$\frac{2}{3} = \frac{10}{15}$ $\quad \frac{4}{5} = \frac{8}{15}$



✓ 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

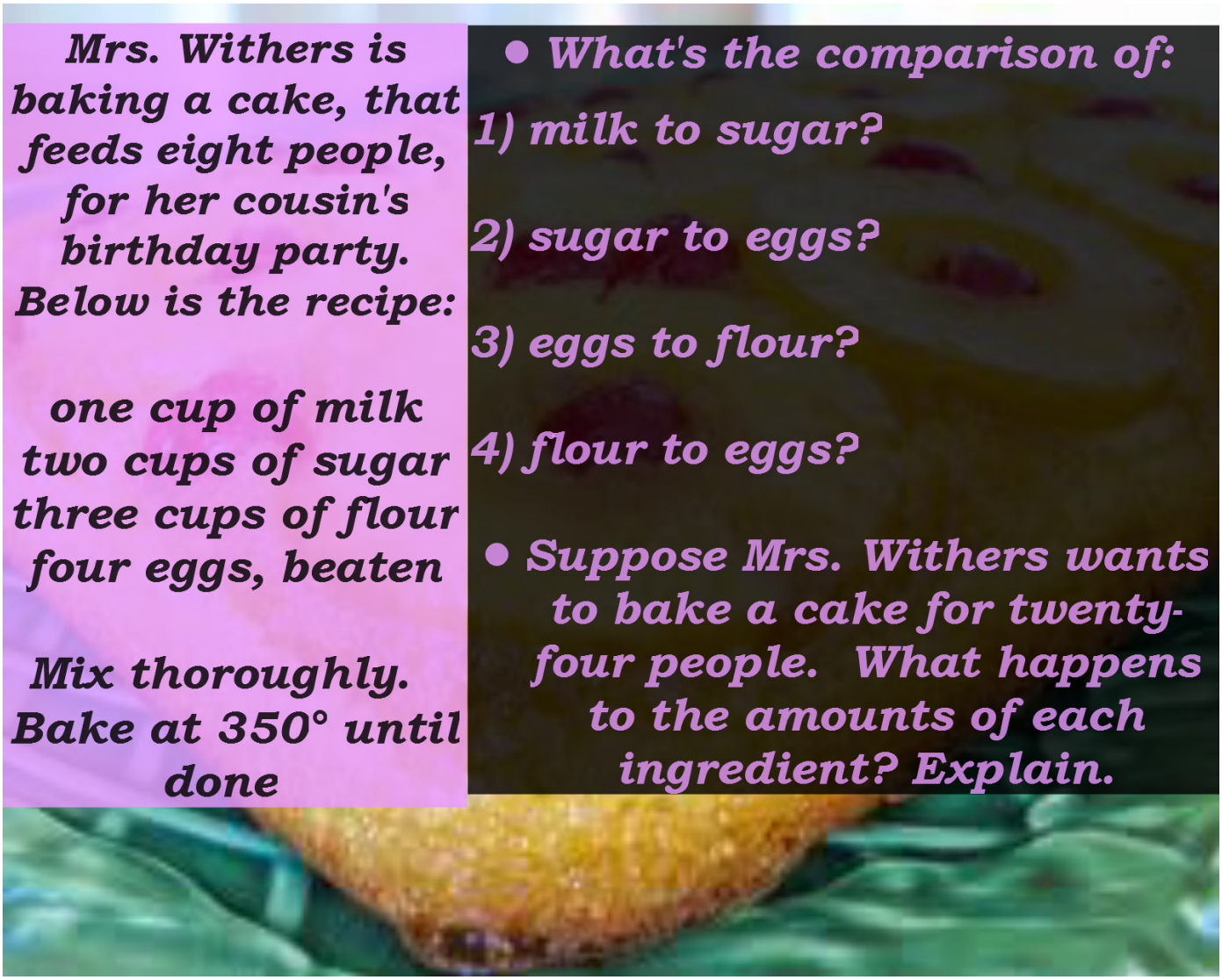
A. $\frac{3}{5} = \frac{N}{1}$

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

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

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

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.

DAY2

AGENDA

Warm-Up

7-ELEVEN SLURPEE

Cornell Notes:

Unit Rates

THINK-PAIR-SHARE

HINT:

D ⇨ F

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

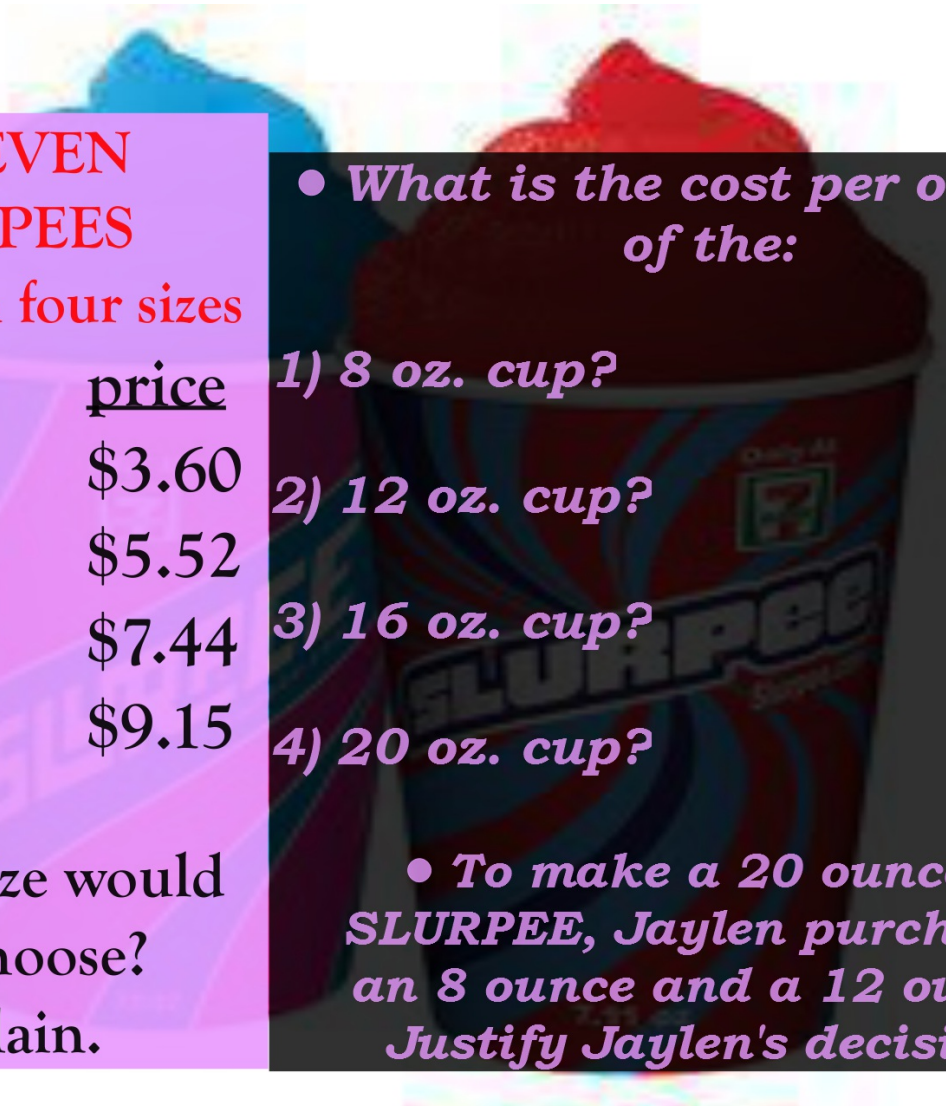
D ⇨ P

move decimal point two places

WARM UP COMPLETE THE TABLE BELOW

FRACTION	DECIMAL	PERCENT
$^{2}/_{5}$		
	.60	
		85%
$^{1}/_{8}$		
$^{3}/_{9}$		

- Write 1.11 as a percent?
- Write 1.11 as a fraction?



7-ELEVEN SLURPEES

are sold in four sizes

size	price
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

Lesson Essential Question:

How can unit rates help us make an better decisions about our money?

What is a UNIT RATE?

UNIT RATES
a special comparison between a measurement to one unit.

Looks Like...

written with a denominator of one.

45 miles per hour = 45 $^{miles}/_{hour}$

\$2 per pound = \$2/$_{pound}$

What do I do?

Divide:

$^{2}/_{3}$ **meters** = $^{1}/_{6}$ **hour**

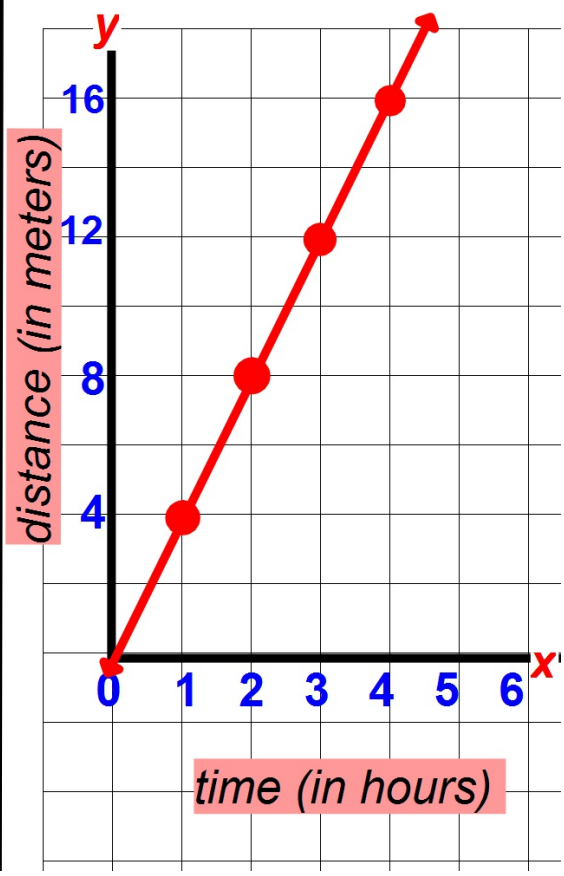
$^{2}/_{3} \div {}^{1}/_{6}$

$^{2}/_{3} \bullet {}^{6}/_{1}$

$^{12}/_{3} = {}^{4}/_{1}$

Ans: 4 meters per hour

GRAPHICALLY



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

GENDA

/arm-Up

ELEVEN

LURPEE

nell Notes:

nit Rates

INK-PAIR-SHARE

MEWORK

oportion

lf-Sheet

WARM UP (PAGE 9) COMPLETE THE TABLE BELOW

OF	10%	20%	30%	50%	80%
100					
80					
50					
40					
20					

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

Topic: Unit Rates	*Lesson Essential Question:* **Why is it important to use colors while solving unit rate word problems?**
STEPS: **GHLIGHT** **y** **ormation.** **SET-UP** **oportion.** **/hat are** **u** **mparing)?** **CROSS** **JLTIPLY to** **lve for x.**	**Three liters of soda cost $3.00. At this rate, how much would 10 liters of soda cost?**

Topic: Unit Rates	*Lesson Essential Question:* **Why is it important to use colors while solving unit rate word problems?**
STEPS: **GHLIGHT** **y** **ormation.** **SET-UP** **oportion.** **/hat are** **u** **mparing)?** **CROSS** **JLTIPLY to** **lve for x.**	**Four gallons of gasoline cost $ 5.50. At this rate, how many gallons of gasoline did you purchase if it cost $20.00?**