

• I can explain the relationship that a ratio represents

What is a ratio?			
A <u>RATIO</u> is a <u>comparison of two</u> <u>numbers by division</u> .			
How do I write a ratio? Looks like			
<u>Words</u> using the word "to"	Colon using the symbol	<u>Fraction</u> using a fraction bar	









Explain What Ratios Represent

Begin with →"For Every..." Grammar Spelling "For every... Punctuation

27 students there are 2 teachers."

"For every...

15 ducks there were 7 turkeys."

Writing Ratios in Simplest Form $\frac{2}{4} \stackrel{>}{_{\sim}} \frac{2}{3}$ 6 chickens, 4 ducks, and 3 turkeys What is the ratio of chickens to ducks? for every 3 chickens there are 2 dudy What is the ratio of chickens to turkeys? Torevery two chickens there is I turkg What is the ratio of ducks to all the birds? For every 4 ducks there are thirteen birds *Remember start with "For Every ... "





Rates & Unit Rates 5-2 I can write a unit rate for a real world problem. I can give examples of a unit rate.



A rate is a ratio <u>of two quantities</u> measured <u>in different units</u>.





7















An equation stating that two ratios are equal.



Find the missing value (x)



X



Applying Proportions









Megan gets \$15 a week for doing her chores. How much will she make after 4 weeks of chores?



Proportions Day 2

Do the two ratios form a proportion (are the ratios equal)?



Find the missing value (x)





When spraying for weeds, the weed killer uses a ratio of 12 oz of weed killer to 4 gallons of water. I put 18 oz of weed killer in my sprayer, how much water do I need to add?



The ratio of "saves to goals" in hockey is 50 saves for every 5 goals. If eight goals are scored, how many saves is that?





•A unit rate is the rate for <u>one unit of</u> <u>a given quantity.</u>

•Rates are divided to find the Unit

<u>Rate</u>.

•Unit rates have a denominator of 1.



 \bigcirc







Find the Unit Rate Round your answer to the nearest hundredth.			
2.6 pounds of carrots for \$7.05	322.7 miles in 7 hours R_tc 3.22.7 7 hrs 7 4 7 4 7 4 7 4 7 4 7 4 7	\$90.48 for 12 hours of work \$40.48 12 hrs 7.54 12 54 12 55 12 55	
A unit rates have a denominator of 1 unit			
Unit Rate: Characteristics (+op) • \$\$Money\$\$ is usually a numerator • Time() is usually a denominator • Divide: numerator in, denominator out den)num • Denominator: ALWAYS is a 1			
Common Sonse gas(gallons) distance (mi)			
-	gels. Imi ?	miles lgel	



Fractions Decimals Divide the numerator by the denominator. n_{unn} $3\frac{3}{8}$ $3\frac{3}$

0









$$25\% \rightarrow \frac{25}{100} \div \frac{25}{25} - \frac{1}{4}$$



- I can use proportions to <u>find the whole</u> when given the
- part & percent.
 Find percent to solve real-life problems (sales tax, sale price, tipping...)



Page 5 5-5 Notes Solving Percent Questions With Percents, the word "of " means to multiply.

When solving equations, write a proportion.





Finding the Percent of the Whole

15 girls are on the CMS volleyball team.
20% of the girls also play on a travel team.
How many of the girls on the middle school team also play on a travel team?



Finding the Whole, given the % or Part

28 is 40% of what number? (same question worded differently) 40% of what number is 28?



Steps to Solving Percent Story Problems

1. Determine what you are solving: the whole, the part, or the percent.

- 2. Set up your proportion.
- 3. Solve for the missing value in your proportion.



Finding the Whole, given the % or Part

The CMS Volleyball team wor 85% of its game this season. In total, they won 17 games. How many games did they play?





Finding the % of a Number

The Coopersville Middle School Volleyball team lost 12 of its 30 games.

What is the percentage of games they lost?



This problem to the end is your homework due tomorrow.

Types of Percent Story Problems

• The sale price of items,

such as 20% off \$50.

The <u>tip on a dinner bill</u>,

the 30% tip on a \$50 food bill.

• The sales tax of an item,

such as 6% sales tax rate.



Percent Story Problems



Percent Story Problems

Best Buy has a 70" TV on sale for 10% off the current price. The current price is \$1000.00. What will be the price you pay <u>after the discount</u>?

$$\frac{10}{100} \xrightarrow{\text{part (ie)}} X = Sav; as \rightarrow $100 \ -$$

What is the final price with the 6% MI Sales tax?

