

1.2 Notes

Translating verbal phrases to mathematical operations

Addition	Subtraction	Multiplication	Division

Translate the following phrases

Rate:

Unit rate:

EX:

Useful Conversions

Write Equations and Inequalities

Equation:

Inequality:

Symbol	Meaning	Other Words


Solution of an Equation or Inequality:

Ex:

Use mental math to solve:

You try!

Practice Problems

Translate the verbal phrase into an expression.		
1) 8 more than a number x	2) 50 divided by a number y	
3) The quotient of twice a number t and 12	4) 5 more than 3 times a number w	
Write an expression for the situation.		
5) Number of tokens needed for v video games if each game takes 4 tokens.	6) Amount you spend if you buy a shirt for \$20 and jeans for j dollars	7) Number of months in y years
Find the unit rate in feet per second.		
8) $\frac{180 \text{ miles}}{2 \text{ hours}}$		
Describe and correct the error in the units.		
9) $9 \text{ yards} \cdot \frac{3 \text{ feet}}{1 \text{ yard}} \cdot \frac{\$2}{\text{foot}} = \frac{\$4}{\text{foot}}$		
Write an equation or an inequality		
10) The sum of 42 and a number n is equal to 51.	11) The sum of 12 and the quantity 8 times a number k is equal to 48	12) The sum of a number b and 3 is greater than 8 and less than 12.
13) Write an inequality for the price p (in dollars) described.		
		

Describe and correct the error in writing the verbal sentence as an equation or an inequality.		
14) The quotient of a number t and 4.2 is at most 15.		
$\frac{t}{4.2} > 15$		
Check whether the given number is a solution of the equation or inequality.		
15) $9 + 4y = 17; 1$	16) $\frac{r}{3} - 4 = 4; 12$	
17) $y - 3.5 < 6; 9$	18) $4z - 5 < 3; 2$	
Solve the equation using mental math.		
19) $y + 16 = 25$	20) $8b = 72$	
QUICK REVIEW		
1) $\frac{2}{5} + \frac{3}{4}$	2) $\frac{11}{9} \left(\frac{6}{11} \right)$	3) Find the Greatest Common: 10, 40

1.2 Application

1) Find the unit rate in feet per second:

$$\frac{240 \text{ yards}}{1 \text{ hour}}$$

2) Check to see whether 5 is a solution:

$$10 + 7g < 44$$

3) The football team needs to buy Gatorade for Saturday's big game. They have two options. The first option is they can buy it pre-made in 48 ounce bottles for \$3.84 for each bottle. Or they can buy packets and mix with water. Each packet makes 64 ounces and will cost \$4.80.

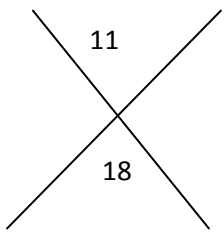
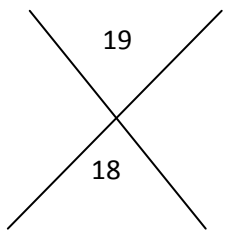
a) Find the cost per ounce of each.

b) Which size costs less?

c) The team will need to buy 192 ounces of Gatorade. How much do you save using the choice from answer b?

4) Your family takes a road trip to Berlin for the weekend. You've driven 120 miles so far, but need to travel 400 miles total. How many more miles must you travel?

5) You and a friend are discussing how many sections you've completed so far in Algebra I. You tell your friend "I've finished 3 times as many sections as you." Your friend replies "You've only finished 4 more sections than I have". How many sections have you and your friend completed?

Coming up...MAGIC X. (What two numbers add to the top # and multiply to the bottom #?)		
1) 	2) 	3) 