

Cornell Notes	Name: _____
Topic: <u>Writing Equations in One Variable</u>	Date: _____
<u>Lesson 7.1</u>	Period: _____

Essential Question: **How does rewriting a word problem help you solve the word problem?**

Questions/Main Ideas:	Notes:									
Vocabulary	Equation - a mathematical sentence that uses an equal sign, to show that two expressions are equal									
	Expression - a mathematical sentence									
	$\underbrace{1 + y}_{\text{Expression}} = \underbrace{5 - y}_{\text{Expression}}$									
	Equation									
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Expression</td> <td style="width: 10%; text-align: center;">=</td> <td style="width: 40%; text-align: center;">Equations</td> </tr> <tr> <td style="text-align: center;">$4 + 8$</td> <td></td> <td style="text-align: center;">$4 + 8 = 12$</td> </tr> <tr> <td style="text-align: center;">$X + 8$</td> <td></td> <td style="text-align: center;">$X + 8 = 12$</td> </tr> </table>	Expression	=	Equations	$4 + 8$		$4 + 8 = 12$	$X + 8$		$X + 8 = 12$
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Example 1	Writing Equations									
	Write the word sentence as an equation.									
	a.) The sum of a number n and 7 is 15.									
	$n + 7 = 15$									
	b.) A number y decreased by 4 is 3.									
	$y - 4 = 3$									
	c.) 12 times a number p equals 48.									
	$12 \times p = 48$ or $12p = 48$									
Your Turn!	1. 9 less than a number b equals 2.									
	2. The product of a number g and 5 is 30.									
	3. A number k increased by 10 is the same as 24.									
	4. The quotient of a number q and 4 is 12.									

Example 2	Writing an Equation
	Ten servers decorate 25 tables for a wedding. Let c be the total number of white and purple candles. There are 4 white candles and 6 purple candles on each table. Write an equation.
Hint:	# of Candles is # of Tables times # of candles on each table
	$c = 25 (4 \text{ white} + 6 \text{ purple})$
	$c = 25 \times (4 \text{ white} + 6 \text{ purple})$
Your Turn!	5. You enter an elevator and go down 7 floors. You exit on the 10 th floor. Write an equation you can use to find the floor where you entered the elevator.
	6. Together you and a friend have \$52. Your friend has \$28. Write an equation you can use to find how much money you have.
Summary: Students should write a summary reflecting the above essential question.	