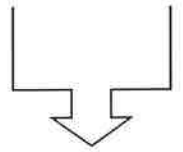


Name \_\_\_\_\_ m. of 3 = multiples of 3

**Math Plus -Homework Outline – Unit 1: Solving Equations**



***COPY PROBLEMS! USE GOOD FORMAT! SHOW ALL WORK!***

Date	Lesson/Objective	Homework
Monday  August 28	<b>Syllabus and Course Expectations</b>  Welcome and Pre-Assessment – NO Calculator  Simplify Expressions	<b>Signed Papers</b>  HW 1-1  <i>Must show all work! Use good format! Don't use calculator!</i>
Tuesday  August 29	<b>Solving Equations</b>	HW 1-2
Wednesday  August 30	<b>Solving More Multi step Equations</b>	HW 1-3
Thursday  Aug. 31	<b><i>Solve Literal Equations</i></b>	HW 1-4
Friday  Sept. 1	<b>Application Problems</b>  <b><i>QUIZ-DAYS 1-3 No Calculator</i></b>	HW 1-5
Monday  Sept. 4	<b><i>HOLIDAY</i></b>	OFF
Tuesday  Sept. 5	<b>Review for Test 1</b>	Finish Review WS
Wed.  Sept. 6	Test – Unit 1	Relations and Functions WS

**Do All work in spiral notebook!**

Writing and Simplifying Algebraic Expressions*Write each phrase as an algebraic expression.*

1. \$18 less than a number  $p$  \_\_\_\_\_
2. the quotient of  $n$  and 15 \_\_\_\_\_
3. 8 less than 25 multiplied by a number  $q$  \_\_\_\_\_
4. 5 more than the difference of 10 and a number  $m$  \_\_\_\_\_
5. 3 less than the quotient of a number 15 and  $x$  \_\_\_\_\_
6. 7 times the product of 25 and a number  $g$  \_\_\_\_\_
7. 3 plus the product of 2 and  $h$  \_\_\_\_\_
8. 3 less than the quotient of 20 and  $x$  \_\_\_\_\_

Simplify each of the following expressions:

9. $6y + (-13y)$	10. $-12z + (-9z)$	11. $-8x + 9x - 13x$
12. $15x + 2x - 12x - 13x^2 - 15$	13. $2p^4 + 3p + 12 - 18p^4 - p - 7$	14. $12m + (-9) - 45m$
15. $-8 + 8k + 14 - 19k$	16. $5(3e + 5) - 25e$	17. $-12n - 18n + 9(4n + 3)$
18. $8(z^2 + 3) - 19z^2 + 14$	19. $-6(3m + 2) - 6m + (-13)$	

how ALL of your work! Box or circle your final answer. Make sure to CHECK your work.

Solve the following:

1. $x + 5 = 4$	2. $7 = \frac{1}{4}y$
2. $2m = -2m + 20$	4. $3x + 1 - x = 1$
5. $-2 = -3y + 2$	6. $-p + 7 + 10 = 3 + p$
7. $18 = 5 - y - 4$	8. $24 = x - 17$

11. Evaluate  $x + y^2 - 2z$  if  $x = 2, y = -1,$  and  $z = 3.$

Work:

Answer: \_\_\_\_\_

Directions: Each problem has been incorrectly solved for the variable x. Identify which step the mistake was made and complete the problem to correctly solve for x. Solve the equations correctly below.

7)	8)	9)
(step 1) $-3(x+7) = 8 - (2x+4)$	(step 1) $5(x-3) = 2(x+9) - 8$	(step 1) $-3(6x+1) - 9 = -4(3x-2)$
(step 2) $-3x+7 = 8 - 2x - 4$	(step 2) $5x-15 = 2x+18-8$	(step 2) $-24x-3-9 = -12x+8$
(step 3) $-3x+7 = 4 - 2x$	(step 3) $5x-15 = 2x+10$	(step 3) $-24x-12 = -12x+8$
(step 4) $x+7 = 4$	(step 4) $3x-15 = 10$	(step 4) $-36x = 20$
(step 5) $x = -3$	(step 5) $3x = 5$	(step 5) $x = 20 / -36 = -5/9$
	(step 6) $x = \frac{5}{3}$ or $1\frac{2}{3}$	(step 6) $x = -5/9$

The mistake is in step \_\_\_\_\_      The mistake is in step \_\_\_\_\_      The mistake is in step \_\_\_\_\_

The correct answer is x = \_\_\_\_\_      The correct answer is x = \_\_\_\_\_      The correct answer is x = \_\_\_\_\_

Solve each of the following equations for  $x$ :

1)  $x + 9(x - 2) = -5 + 5x - 3$

2)  $3(r + 2) - 5 = 4(r + 2)$

3)  $-(1 - 4g) + 10 - g = 2(g + 3)$

4)  $-2(x + 9) = -(6 - 5x) + 2x$

5)  $7(x + 4) - 2x = 10 + (4x - 2)$

6)  $8 - (3 + 5x) = 7(2 + 5x)$

Using the process we did in class solve each of the following problems. Remember to state your variables and clearly label your equation and answer.

7. The selling price of a television in a retail store is \$66 less than 3 times the wholesale price. If the selling price of a television is \$899, write and solve an equation to find the wholesale price of the television.
8. The fare for a taxicab is \$5 per trip plus \$0.50 per mile. The fare for the trip from the airport to the convention center was \$11.50. Write and solve an equation to find how many miles the trip is from the airport to the convention center.
9. The cost of a gallon of gas is \$3.25 less than 2 times the cost of a gallon of diesel  $d$ . If a gallon of gas costs \$3.95, what is the cost of a gallon of diesel?

# LITERAL EQUATIONS WORKSHEET

HW  
1-4

Solve for the indicated variable in the parenthesis ON A SEPARATE SHEET OF PAPER!

1)  $P = IRT$  (T)

2)  $A = 2(L + W)$  (W)

3)  $y = 5x - 6$  (x)

4)  $2x - 3y = 8$  (y)

5)  $\frac{x+y}{3} = 5$  (x)

6)  $y = mx + b$  (b)

7)  $ax + by = c$  (y)

8)  $A = h(b + c)$  (b)

9)  $V = LWH$  (L)

10)  $A = 4r^2$  ( $r^2$ )

11)  $V = \pi r^2 h$  (h)

12)  $7x - y = 14$  (x)

13)  $A = \frac{x+y}{2}$  (y)

14)  $R = \frac{E}{I}$  (I)

15)  $x = \frac{yz}{6}$  (z)

16)  $A = \frac{r}{2L}$  (L)

17)  $A = \frac{a+b+c}{3}$  (b)

18)  $12x - 4y = 20$  (y)

19)  $x = \frac{2y-z}{4}$  (z)

20)  $P = \frac{R-C}{N}$  (R)

# HW 1-5

Math Plus MORE APPLICATIONS

NAME

<p>1) A high school marching band has 55 male members. It is determined that five-eighths of the band members are male. How many total members are in the band?</p>	<p>2) The fare for a taxi is \$5 per trip plus \$0.50 per mile. The fare for the trip from the airport to the convention center was \$11.50. How many miles is the trip from the airport to the convention center?</p>
<p>3) An ice cream sundae costs \$1.75 plus an additional \$0.35 for each topping. If the total cost is \$2.80, how many toppings did the sundae have?</p>	<p>4) The cost of a gallon of gasoline is \$3.25 less than 2 times the cost of a gallon of diesel fuel. If a gallon of gas costs \$3.95, what is the cost of a gallon of diesel?</p>
<p>5) General admission tickets to the fair cost \$3.50 per person. Ride passes cost an additional \$5.50 per person. Parking costs \$6 for the family. The total costs for ride passes and parking was \$51. How many people in the family attended the fair?</p>	<p>6) Find 2 consecutive integers whose sum is 45.</p>
<p>7) Find 2 consecutive odd integers whose sum is 72.</p>	<p>8) Find 2 consecutive odd integers whose sum is -88.</p>
<p>9) Andy is twice as old as Kate. Andy is 24. How old is Kate?</p>	<p>10) Ally is 4 years older than twice the age of Sam. Ally is 14. How old is Sam?</p>

**Math Plus Unit 1 Test Review**

Name: \_\_\_\_\_

Simplify each expression		
1. $3x + 4 - 2x + 7$	2. $-(2x + 9) - 2$	3. $4 + 2x - 2(x - 1)$
4. $4(x - 4) + 2(2x + 9) + 1$	5. $4x(2x - 3) - 7x^2 - 6x + 1$	6. $2x^2 - 5x - 9x^2 - 4(x - 2)$
Solve		
1. $-4x - 2 = -14$	2. $-3(p - 2) = -3p + 2$	3. $r = 3(r - 2) + 7$
4. $13n - 6 = 7n + 3(2n - 2)$	5. $\frac{3}{2x-4} = \frac{7}{3x+1}$	6. $\frac{m}{5} - 4 = -7$

Solve each literal equation for the variable that is indicated.			
1. $m = \frac{1}{3}rph ; p$	2. $n - 3p = 9 ; p$	3. $\frac{a+b}{2} = y ; b$	4. $\frac{x+y}{2} - 3 = 6 ; y$
Three less than one fifth of a number is 2. Find the number.		Equation: Answer:	

Look over other application problems as well!!