

Homework #2 ~ Chapter 1**Show your work on this paper to receive credit.**

Express each statement using one of the key words sum, difference, product, or quotient:

1.) $22 + 13 = 35$	2.) $\frac{36}{4} = 9$	3.) $(5)(12) = 60$	4.) $17 - 9 = 8$
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5.) classify each as an expression or equation: a) $6x - 32 = 18$ b) $45x - 23y + 9$ c) $2(5 - 3 + 11)$		
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6.) Use the formula $x = y + 11$ to complete the table: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>y</td> <td>x</td> </tr> <tr> <td>4</td> <td></td> </tr> <tr> <td>11</td> <td></td> </tr> <tr> <td>9</td> <td></td> </tr> </table>	y	x	4		11		9		7.) What is the result of each division? a) $\frac{7}{7}$ c) $\frac{0}{9}$ b) $\frac{15}{0}$ d) $\frac{4}{1}$
y	x								
4									
11									
9									

8.) Rewrite the each number below as the product of 3 factors: a) 12 b) 21 c) 65	9.) List all the factors of 96.	10.) Give the prime factorization of 243.
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11.) Create a number line and graph the following numbers: $\left\{-4, \frac{2}{5}, 0, 5, -1.6, \frac{5}{2}\right\}$	12.) Compare by inserting $>$ or $<$ a) -11 ____ -5 b) -11 ____ 5 c) $ -11 $ ____ -5 d) $ -11 $ ____ $ -5 $	13.) Fill in the table: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Starting Point</th> <th colspan="2">#'s 3 units away from starting point</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td></td> <td>-7</td> <td>-1</td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td>0</td> <td></td> <td></td> </tr> <tr> <td></td> <td>-1</td> <td>5</td> </tr> </tbody> </table>	Starting Point	#'s 3 units away from starting point		1				-7	-1	2			0				-1	5
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1																				
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2																				
0																				
	-1	5																		

14) For the set $\left\{-\frac{2}{3}, \sqrt{2}, -4, 0.57, -1\frac{2}{5}, \Pi, 18, 0\right\}$, List all the:	
a) Natural Numbers _____	d) Rational Numbers _____
b) Whole Numbers _____	e) Irrational Numbers _____
c) Integers _____	f) Real Numbers _____

15) For the real number $-\frac{3}{5}$, Write its: a) Negative Value b) Absolute Value c) Opposite Value

16.) Simplify:
 $3 + 7 + (-3) + (-18)$

17.) Simplify:
 $[3 + (-7)] + (-4 + 9)$

18.) Simplify:
 $3 - (-6)$

19.) Simplify:
 $-5 - (-2)$

20.) Simplify:
 $12 + (-7) - (-8) + (-2)$

21.) Simplify:
 $-\frac{5}{8} + \left(-\frac{3}{5}\right)$

22.) Simplify:
 $-3.6 + (-5.4 - 1.8)$

23.) Simplify:
 $10 - 3[4 - (-6 - (-3))]$

24.) Simplify:
 $-5(-6)(-3)$

25.) Simplify:
 $\frac{-4(-3)(-1)}{-3^2}$

26.) Simplify:
 $-2\left(\frac{12}{-3}\right) + (-7 - (-5))^2$

27.) Simplify:
 $\frac{(3^4 - 10) + 6}{5 + 3(6 - 2^2)}$

28.) For the algebraic expression $2a^2b + 3ab - 15b + 4$:

- a) How many terms are there in the expression? c) List the coefficients of each term from left to right.
 b) How many factors are in the first term?

Translate into an algebraic expression

29.) Six less than a number

30.) The sum of a number and twelve

31.) Four times the difference of a number & three

32.) The quotient of 11 and a number

33.) Six more than a number and three