Identity Property of Addition:

$a + 0 = a$

Inverse Property of Addition:

$b + -b = 0$

The additive inverse of any number is its OPPOSITE

The sum of any number and its opposite is always ZERO

Subtracting Numbers:

Subtracting is the same as

adding the opposite.

Therefore, every subtraction problem can be turned into an addition problem to be simplified using the addition rules.

Simplify each using the Order of Operations. Show your work! NO CALCULATOR

1. $15 - 8 + 4 - 1 + 3$

$7 - 4 - 1 + 3$

$11 - 1 + 3$

$10 + 3$

$= \boxed{13}$

2. $24 \div 6 \cdot 4 \div 2 \cdot 3$

$4 \cdot 4 \div 2 \cdot 3$

$16 \div 2 \cdot 3$

$8 \cdot 3 = \boxed{24}$

3. $5 - 24 \div 6 \cdot 2 + 1$

$5-4\cdot 2+1$

$5-8+1$

$=-2$

4. $5(14 - 2 \cdot 3^2 + 1)^2$ PEMDAS

$5(296-4\cdot 81+1)$

$5(296-324+1)$

$5(-171)$

$=-855$

$5(14-2\cdot 9+1)^2$

$5(14-18+1)^2$

$5(-4+1)^2$

$5(-3)^2 = 45$

5. $15 + 5(22 - 36 \div (4-1)^2 \cdot 3)$

$15+5(22-36\div 3^2\cdot 3)$

$15+5(22-36\div 9\cdot 3)$

$15+5(22-4\cdot 3)$

$15+5(22-12)$

$15+5(10)$

$15+50$

65

Hwk #2 Answers:

page 29.

63. –5
64. 7
65. 5
66. –1
67. 1

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25. –64
26. –87
27. 4
28. 24
29. 36

Is each answer positive or negative?

$(-4)(9)(-15)(36)(-2)(75)$ Negative

$(21)(13)(-5)(-8)(47)(-3)(-62)$ Positive

$(-93)^2(-4)^8(-6)^1(-18)^4(-6)^3$ Positive

+ + − + −

GCF

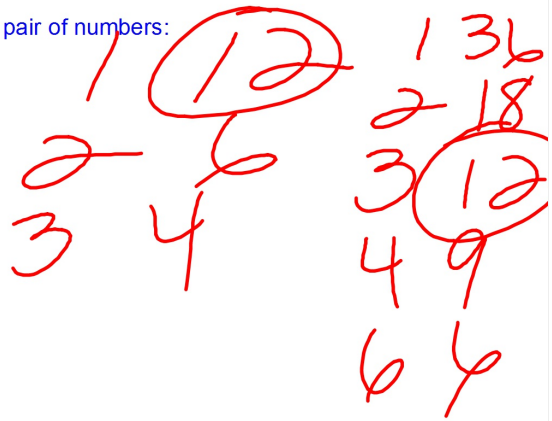
Greatest Common Factor

LCM

Least Common Multiple

Find the GCF of the following pair of numbers:

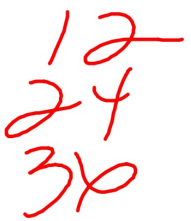
12 and 36



16 and 42

Find the LCM of each pair of numbers:

3 and 13



12 and 18

Section 1-1: Variables

Example 1: Write an expression to model each statement.

1. The difference of twenty and the quotient of five and an unknown number.

$20 - \frac{5}{x}$

2. Eight less than three times a number.

$3x - 8$

3. Six times the quantity Seven plus a number.

$6(7 + x)$

4. The product of two and the cube of a number.

$2x^3$

Example 2: Track One Media sells all CDs for $12 each. Write an equation for the total cost of a given number of CDs.

Relate: The total cost is $12 the number of CDs bought.

Define: Let n = # CDs bought

Let c = cost

Write:

$12n = C$

Your Turn: The perimeter of a square equals 4 times the length of a side.

EQ: $4l = P$

Variables: l = length of a side

P = perimeter

Your Turn: You have 20 dollars more than me. Write an equation to find out how much money we both have.

EQ: $x + (20 + x) = T$

Variables: x = $ I have

T = total

Your Turn: The amount of money you would have spent at the store if you bought some cans of pop for $1.5 each and some bags of chips for $2 each.

EQ: $1.5p+2c=T$

Variables: p = pop, c = chips, T = total

Example 3: Write an equation to represent the data in the table.

#miles drive	Distance remaining on 100 mile bike ride
20	80
35	65
58	42
75	25

EQ: $100-m=d$

Variables:

m = mi driven

d = distance remaining

Your turn: Write an equation to represent the data in the table.

Number of people	Amount of money raised
6	$300
8	$400
10	$500
12	$600

EQ: $M=50p$

Variables: p = ppl, m = $ raised

$\frac{50}{M}=P$

$\frac{P}{2}*100=M$

Your Turn: Write an equation that represents Amani's age.

Mary's age	Amani's age
6	8
9	11
12	14
15	17

EQ: $2+M=A$

Variables:

m = mary's age

A = Amani's Age

Hwk #3

pages 6-7

problems 1, 6-8, 14, 23, 24, 26, 27