Steps used to solve an equation are
the steps required to UNDO all the math operations needed in order to get the variable by itself on one side of the equal sign.

To UNDO a math operation in mathematics you use the INVERSE operation.

Inverse operations:

Addition and Subtraction
Multiplication and Division
Squaring and Square Root

Solve each equation.

1. $5 + \frac{c}{3} = 9$

$-5 \quad -5$

$\frac{c}{3} = 4 \cdot 3$

$\frac{3}{3}$

$c = 12$

2. $\frac{m+1}{6} = 9 \cdot 6 = 54 - 1 = 53$

$m = 53$

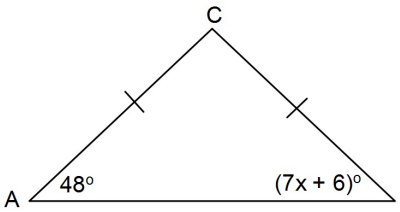
3. $\frac{11}{4}m = 8$ ·4

4 · 2.90

$11m = 32$

$m = \frac{32}{11}$

4. The measure of $\angle A$ equals the measure of $\angle B$.
Write and solve an equation to find the value of x



$7x + 6 = 48$

$-6 \quad -6$

$7x = 42$

$\frac{7x}{7} = \frac{42}{7}$

$x = 6$

1.) You earn $7.50 per hour at a restaurant. Last week your paycheck was for $262.50 before taxes were taken out. Write and solve an equation to find out the number of hours you worked.

$7.50h = 262.5$

$\frac{\$262.50}{\$7.50} = 35$ h=hrs

Solve each equation.

1. $56 = 4 - 5p$

2. $-w - 12 = -19$

3. $13 - \frac{k}{6} = 2$

4. $\frac{-6 + b}{3} = 4$

5. $1 + \frac{4}{3}a = 25$

6. $\frac{m}{3} + \frac{5}{7} = 11$

What is the error in the work?

a.)

$$12 - 3y = 15$$
$$-3y = 3$$
$$y = 1$$

What is the error in the work?

b.)

$$\frac{m}{3} - 9 = -21$$
$$\frac{m}{3} - 9 + 9 = -21 + 9$$
$$3 \cdot \frac{m}{3} = -12 \cdot 3$$
$$m = -4$$
$$-36$$

Algebra I

1.) Evaluate each expression for: $A = 4$ $B = 3$ $C = -5$

a. $-C + 2A$

$-(-5) + 2(4)$

$5 + 8$

13

b. $A - BC$

$4 - (3)(-5)$

$4 - (-15)$

$4 + 15$

$= 19$

c. $B^2 + A - C$

$3^2 + 4 - (-5)$

$9 + 4 + 5$

$= 18$

2.) Evaluate each expression for: $X = -2$ $Y = 7$ $Z = -3$

a. $2X^2 + Y$

$2(-2)^2 + 7$

$2 \cdot 4$

$8 + 7 = 15$

b. $XY - Z$

$(-2)(7) - (-3)$

$-14 + 3 = -11$

c. $XZ^2 + |YX - Z|$

$(-2)(-3)^2 +$

$|(7)(-2) - (-3)|$

$|-14 + 3|$

$|-11|$

$(-2)(-3)^2 + 11$

$-2(9) + 11$

$-18 + 11$

-7

3.) Simplify each.

a. $|-9.1|$

9.1

b. $|11 - 4|$

7

c. $|-5| - |7 - 2|$

0

4.) Classify using these: **Rational Numbers, Irrational Numbers, Natural Numbers, Integers, Whole Numbers**. Give the set(s) to which each belongs to.

a. $\sqrt{25}$

R, all 3

b. $-\frac{24}{12}$ R, I

c. -3

R, I

d. 2.5

R

e. $\sqrt{17}$

IRR

d. 0

I W R

5.) Simplify each.

a. $9 + 2(6 - 2(4 - 7)^2) \div 4 \cdot 3$

$9 + 2(6 - 2(-3)^2) \div 4 \cdot 3$

$(6 - 2 \cdot 9)$

$6 - 18$

$9 + 2(-12) \div 4 \cdot 3$

$9 + (-24) \div 4 \cdot 3$

b. $30 - (40 - 5)$

$30 - 35$

-5

$9 + (-6) \cdot 3$

$9 + -18$

$9 - 18$

-9

c. $10 - (24 \div (2 \cdot 4)) + 2$

$10 - (24 \div 8) + 2$

$10 - (3) + 2$

$7 + 2 = 9$

d. $[9 - 2(4 - 3)^2] - 1 + 9$

$19 - 2$

$7 - 1 + 9$

$6 + 9$

15

e. $36 \div 9 \cdot 4 \div 2$

8

f. $[2 + 4 \cdot (6 - 3)] \div 2 \cdot 3$

$[2 + 4(3)] \div 2 \cdot 3$

$[2 + 12] \div 2 \cdot 3$

$14 \div 2 \cdot 3$

$7 \cdot 3$

21

6.) Write a variable expression to EXACTLY model each statement.

a. The sum of a number and six.

$x + 6$

b. Three more than the quotient of twelve and a number.

$\frac{12}{n} + 3$

c. The cube of a number times eight.

$x^3 \cdot 8$

d. Five times the quantity of eight plus a number.

$(8+x)5$

e. Eleven less than the product of two and a number.

$2x - 11$

Write an equation **and define the variables** for each situation.

7.) There are 24 hours in each day. Write an equation for the number of days in an unknown number of hours.

$\frac{y}{24} = x$ hours = y, days = x

8.) There are 12 inches in a foot. Write an equation for the number of inches in an unknown number of feet.

$12f = i$ inches: i, feet: f

9.) Bob went grocery shopping and decided to buy some bags of chips for $1.25 each and some Coke bottles for $2 each. Write an equation for the total amount of money Bob would have spent at the grocery store.

$1.25x + 2y = T$ x = chips, y = Coke, T = total

10.) Write an equation **and define your variables** to model the table below.

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

$50x = a$, x = # of ppl, a = $

No bookwork!

IXL #3 - A.2 & I.3 (I.2 can be done for extra credit)

Study for Monday's test!