

S-PA Pre-Algebra Session 7 6/29

- 1.) $7 + 0 = 7$ *identity*
- 2.) $3(a+b) = 3a + 3b$ *distributive*
- 3.) $8 * 9 = 9 * 8$ *Commutative*
- 4.) $4 * \frac{1}{4} = 1$ *inverse*
- 5.) $2 + (8 + 13) = (2 + 8) + 13$ *associative*
- 6.) $12 * 1 = 12$ *identity*
- 7.) $8 + (-8) = 0$ *inverse*

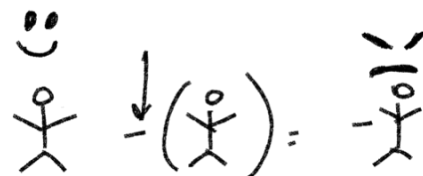
Commutative (c)
 associative (a)
 identity (ID)
 inverse (IN)
 distributive (d)

$$8(2a + 3) = 16a + 24$$

$$1.) - (5b - 2) = -5b + 2$$

$$2.) 6(3x + 8) = 18x + 48$$

$$3.) -4(-3y - 9) = 12y + 36$$



$$3(2x-8) - 4(7x+3) \quad \text{"simplify"}$$

$$\boxed{6x} - \boxed{24} \quad \boxed{-28x} - \boxed{12}$$

$$\boxed{-22x - 36}$$

$$6x - 28x \quad -24 - 12$$

$$-22x \quad -36$$

$$-9(2x+8) + 8(3x+4)$$

$$-18x - 72 + 24x + 32$$

$$-18x + 24x = 6x \quad -72 + 32 = -40$$

$$\boxed{6x - 40}$$

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

$$28x - 14 + 5x$$

$$\boxed{33x - 14}$$

$$X + 5 = 8$$

$-5 \quad -5$

$$X = 3$$

$$X - 8 = 11$$

$+8 \quad +8$

$$X = 19$$

$$\overset{*}{2}X = \frac{18}{2}$$

$$X = 9$$

$$3\left(\frac{X}{3}\right) = (7)3$$

$$X = 21$$

$$X + 5 = 8$$

$-5 \quad -5$

$$X + \underbrace{5 + (-5)} = 8 - 5$$

inverse property (doing opposite)

$$\underbrace{X + 0} = 3$$

identity property

$$X = 3$$

$$2 * X = 18$$

$$2X * \frac{1}{2} = 18 * \frac{1}{2}$$

inverse property

$$\underbrace{2 * \frac{1}{2} * X} = 18 * \frac{1}{2}$$
$$\underbrace{1 * X} = 9$$

identity property

$$X = 9$$

$$1.) \quad x - 9 = 2$$

$+9 \quad +9$

$$\boxed{x = 11}$$

$$3.) \quad 8 \left(\frac{x}{8} \right) = (12) 8$$
$$\boxed{x = 96}$$

$$5.) \quad \frac{9x}{9} = \frac{54}{9}$$
$$\boxed{x = 6}$$

$$7.) \quad x + 7 = 13$$

$-7 \quad -7$

$$\boxed{x = 6}$$

$$2.) \quad \frac{8x}{8} = \frac{32}{8}$$
$$\boxed{x = 4}$$

$$4.) \quad x + 6 = 11$$

$-6 \quad -6$

$$\boxed{x = 5}$$

$$6.) \quad 3 \left(\frac{x}{3} \right) = (17) 3$$
$$\boxed{x = 51}$$

$$8.) \quad x - 2 = -9$$

$+2 \quad +2$

$$\boxed{x = -7}$$

