M-PA Pre-Algebra 11/8

- commutative (C)
- associative (A)
- identity (ID)
- inverse (IN)
- distributive (D)

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

1.) $8(2a+3)$

$8*2a + 8*3$

$\boxed{16a + 24}$

$8[2(SN) + 3(RC)]$

$16(SN) + 24(RC)$

2.) $-(5b - 2)$ $\boxed{-5b + 2}$

3.) $6(3x + 8)$ $\boxed{18x + 48}$

4.) $-4(-3y - 9)$ $\boxed{12y + 36}$

$3(2x-8) - 4(7x+3)$

$6x - 24 - 28x - 12$

$6x + (-28x)$ $\quad -24 + (-12)$

$\boxed{-22x - 36}$

1.) $\underbrace{-9(2x+8)} + 8(3x+4)$

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

$\boxed{6x - 40}$

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

$6x$ $\quad -40$

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

$28x - 14 + 5x$

$\boxed{33x - 14}$

$x + 5 = 8$ $\quad$ $x = 3$

$3 + 5 = 8$

$$x + 5 = 8$$
$$-5 \quad -5$$
$$\boxed{x = 3}$$

$$x - 8 = 11$$
$$+8 \quad +8$$
$$\boxed{x = 19}$$

$$\frac{2x}{2} = \frac{18}{2}$$
$$\boxed{x = 9}$$

$$\left(\frac{x}{3}\right)^3 = (7)^3$$
$$\boxed{x = 21}$$

1.) $x \boxed{\begin{matrix} -9 \\ +9 \end{matrix}} = \boxed{\begin{matrix} 2 \\ +9 \end{matrix}}$ $\boxed{x = 11}$

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

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

4.) $x + 6 = 11$ $\boxed{x = 5}$
$\quad -6 \quad -6$

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

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

7.) $x + 7 = 13$
$\quad -7 \quad -7$ $\boxed{x = 6}$

8.) $x - 2 = -9$
$\quad +2 \quad +2$
$$\boxed{x = -7}$$