Warm-Up...(FRONT PAGE ONLY)

Have homework (7 board problems out so I can check it)

Substitution

$$y = -2x \qquad y = x+3$$

$$-2x = x+3$$
$$-x \qquad -x$$

$$\frac{-3x}{-3} = \frac{3}{-3}$$

$$x = -1$$

$$y = x+3$$
$$y = -1+3$$
$$y = 2$$

SOLUTION
$$(-1, 2)$$

Substitution (Type II)

- One of the equations is already solved "x=" or "y="
- Use it to substitute into the other

Solve each system:

Ex 1: 2x + 8y = 20

$y = 2$

$2x + 8(2) = 20$
$2x + 16 = 20$
$ -16 \quad -16$
$\dfrac{2x}{2} = \dfrac{4}{2}$ $\boxed{x = 2}$

SOLUTION
$(\underset{x}{2}, \underset{y}{2})$

Ex 2: 5x - 2y = 3

$y = 2x$

$5x - 2(2x) = 3$
$5x - 4x = 3$
$\boxed{x = 3}$

$y = 2x$
$y = 2(3)$
$\boxed{y = 6}$

SOLUTION
$(3, 6)$

Ex 3: x = 2y - 1

　　　3x - 2y = -3

$$3(2y-1) - 2y = -3$$

$$6y - 3 - 2y = -3$$

$$4y - 3 = -3$$
$$+3 \quad +3$$

$$\frac{4y}{4} = \frac{0}{4}$$

$$\boxed{y = 0}$$

$$x = 2y - 1$$

$$x = 2(0) - 1$$

$$\boxed{x = -1}$$

SOLUTION
$$(-1, 0)$$