Classwork Answer Key

1) $-4x + y = 3$
$8x = 2y - 6$

• I choose to solve by elimination!

$2(-4x + y = 3)$ → $-8x + 2y = 6$
$8x - 2y - 6$ → $+ 8x - 2y = -6$

$\boxed{0 = 0}$ ✓

This is always true, so (Infinitely Many Solutions)

⇒ When graphed, we would see the same line for both.

2) $x + 2y = 11$
$x + 2y = 2$

• I choose to solve by elimination!

$-1(x + 2y = 11)$ → $-x - 2y = -11$
$x + 2y = 2$ → $+ x + 2y = 2$

$\boxed{0 = -9}$

This is never true, so (No Solution)

⇒ When graphed, we would see parallel lines or no intersection.

#16
$x + y = 12$
$+ x - y = 4$

$2x = 16$
$\boxed{x = 8}$

$8 + y = 12$
$\boxed{y = 4}$

#21 $5y + 2x = 30$ $y - 3 = |x - 5|$

* To put these in t calculator, I neec solve for y

$5y + 2x = 30$

$5y = 30 - 2x$

$y = 6 - \frac{2}{5}x$

$y - 3 = |x - 5|$

$y = |x - 5| + 3$

(5.71, 3.71) and (3.33, 4.67)

#23 $3(x+4)^2 = 4 - y$ $\frac{y+5}{2} = |x+5|$

$3(x+4)^2 = 4 - y$

$3(x+4)^2 - 4 = -y$

$-3(x+4)^2 + 4 = y$

$\frac{y+5}{2} = |x+5|$

$y + 5 = 2|x+5|$

$y = 2|x+5| - 5$

(-5.61, -3.78) and (-2.77, -0.54)