Solving Simple Equations

1. Solve for the variable.

$3x - 6 = 0$ $+6 \quad +6$ $\frac{3x}{3} = \frac{6}{3}$ $x = 2$	$2y - 6 = 0$ $+6 \quad +6$ $\frac{2y}{2} = \frac{6}{2}$ $y = 3$
$-4x - 8 = 0$ $+8 \quad +8$ $\frac{-4x}{-4} = \frac{8}{-4}$ $x = -2$	$-2y - 8 = 0$ $+8 \quad +8$ $\frac{-2y}{-2} = \frac{8}{-2}$ $y = -4$
$x + 9 = 0$ $-9 \quad -9$ $x = -9$	$-3y + 9 = 0$ $-9 \quad -9$ $\frac{-3y}{-3} = \frac{-9}{-3}$ $y = 3$

2. Solve for x when y = 0.

$2x - 5y + 10 = 0$ $2x - 5(0) + 10 = 0$ $2x + 10 = 0$ $-10 \quad -10$ $\frac{2x}{2} = \frac{-10}{2}$ $x = -5$	$3x + 4y - 24 = 0$ $3x - 24 = 0$ $+24 \quad +24$ $\frac{3x}{3} = \frac{24}{3}$ $x = 8$
$-x + 7y + 21 = 0$ $-x + 21 = 0$ $-21 \quad -21$ $-x = -21$ $x = 21$	$-4x + y - 20 = 0$ $-4x - 20 = 0$ $+20 \quad +20$ $\frac{-4x}{-4} = \frac{20}{-4}$ $x = -5$
$y = 3x - 18$ $0 = 3x - 18$ $+18 \quad +18$ $\frac{3x}{3} = \frac{18}{3}$ $x = 6$	$y = -4x + 16$ $0 = -4x + 16$ $-16 \quad -16$ $\frac{-4x}{-4} = \frac{-16}{-4}$ $x = 4$
$y = \frac{1}{2}x - 5$ $0 = \frac{1}{2}x - 5$ $2\left(\frac{1}{2}x\right) = (5)2$ $x = 10$	$y = \frac{-3}{4}x + 3$ $0 = \frac{-3}{4}x + 3$ $4\left(\frac{-3}{4}x\right) = (-3)4$ $\frac{-3x}{-3} = \frac{-12}{-3}$ $x = 4$