Circuit Training – Transform Ax + By = C into y = mx + b **Name** _____

Directions: Beginning in cell #1, solve each equation for y. Write in slope-intercept form (y = mx +b). Hunt for your answer. Call that cell #2 and proceed in this manner until you complete the circuit.

Answer: $y = x - 6$ #__1__ $x + y = 6$ $-x \quad -x$ $y = -x + 6$	Answer: $y = -2x + 6$ #_____ $x + 2y = 6$ $-x \quad -x$ $\frac{2y}{2} = \frac{-x+6}{2}$ $y = -\frac{1}{2}x + 3$
Answer: $y = 3x - 6$ #_____ $x - 3y = 6$ $-x \quad -x$ $\frac{-3y}{-3} = \frac{-x+6}{-3}$ $y = \frac{1}{3}x - 2$	Answer: $y = -3$ #_____ $x + y = 2y + 6$ $-x \quad -x$ $y = 2y - x + 6$ $-2y \quad -2y$ $\frac{-y}{-1} = \frac{-x+6}{-1}$ → $y = x - 6$
Answer: $y = -x - 3$ #_____ $-2x + y = 0$ $+2x \quad +2x$ $y = 2x$	Answer: $y = -x - 6$ #_____ $2x + y = 6$ $-2x \quad -2x$ $y = -2x + 6$
Answer: $y = -x + 6$ #_____ $x + y = -6$ $-x \quad -x$ $y = -x - 6$	Answer: $y = \frac{1}{3}x - 2$ #_____ $\frac{1}{2}x + 3y = -4$ $-\frac{1}{2}x \quad -\frac{1}{2}x$ $\frac{3y}{3} = \frac{-\frac{1}{2}x - 4}{3}$ $y = -\frac{1}{6}x - \frac{4}{3}$
Answer: $y = \frac{3}{2}x + 3$ #_____ $3x - y = 6$ $-3x \quad -3x$ $\frac{-y}{-1} = \frac{-3x+6}{-1}$ $y = 3x - 6$	Answer: $y = -\frac{1}{2}x + 3$ #_____ $2x + 2y = 6$ $-2x \quad -2x$ $\frac{2y}{2} = \frac{-2x+6}{2}$ $y = -x + 3$

Answer: $y = -3x - 6$

_____ $y - 2x = 6$

$+2x \quad +2x$

$y = 2x + 6$

Answer: $y = \frac{1}{2}x - 6$

_____ $y + x = -3$

$-x \quad -x$

$y = -x - 3$

Answer: $y = x$

_____ $3 - y = 6$

$-3 \quad -3$

$\frac{-y}{-1} = \frac{3}{-1}$

$y = -3$

Answer: $y = -\frac{2}{3}x + 3$

_____ $-2x + 6y = 18$

$+2x \quad +2x$

$\frac{6y}{6} = \frac{2x + 18}{6}$

$y = \frac{1}{3}x + 3$

Answer: $y = -x + 3$

_____ $-2x + 2y = 6$

$+2x \quad +2x$

$\frac{2y}{2} = \frac{2x + 6}{2}$

$y = x + 3$

Answer: $y = -\frac{1}{6}x - \frac{4}{3}$

_____ $\frac{1}{4}x - \frac{1}{2}y = 3$

$-\frac{1}{4}x \quad -\frac{1}{4}x$

$\frac{-\frac{1}{2}y}{-\frac{1}{2}} = \frac{-\frac{1}{4}x + 3}{-\frac{1}{2}}$

$y = \frac{1}{2}x - 6$

Answer: $y = \frac{1}{3}x + 3$

_____ $-6x - 2y = 12$

$+6x \quad +6x$

$\frac{-2y}{-2} = \frac{6x + 12}{-2}$

$y = -3x - 6$

Answer: $y = 2x$

_____ $x - y = 0$

$-x \quad -x$

$\frac{-y}{-1} = \frac{-x}{-1}$

$y = x$

Answer: $y = 2x + 6$

_____ $3x - 2y = -6$

$-3x \quad -3x$

$\frac{-2y}{-2} = \frac{-3x - 6}{-2}$

$y = \frac{3}{2}x + 3$

Answer: $y = x + 3$

_____ $4x + 6y = 18$

$-4x \quad -4x$

$\frac{6y}{6} = \frac{-4x + 18}{6}$

$y = -\frac{2}{3}x + 3$