Circuit Training – Transforming to y=mx+b ; Identifying slope & y-intercept   Name_____

Directions: Beginning in the top left cell, transform the equation to slope-intercept (y=mx+b) form. Then, state the slope and y-intercept. To advance in the circuit, hunt for the slope. When you find it, mark that #2 and work the next problem in that cell. Continue in this manner until you complete the circuit. Note: There is a puzzle at the end!

Answer: $m = -4$ # ___1___ $1 + 2y = 6x - 3$	Answer: $m = 7$ # _____ $15 - \frac{1}{3}y = x + 17$
Answer: $m = -1$ # _____ $4x = y - 6$	Answer: $m = \frac{5}{2}$ # _____ $y = 6x + 4y + 9$
Answer: $m = -3$ # _____ $3(y - 7) = x$	Answer: $m = 3$ # _____ $3 - y = x + 10$

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Answer: $m = 2$	Answer: $m = 0$
#_____ $\quad 5x = 2(y-4)$	#_____ $\quad y = 4x + 2y$
Answer: $m = -2$	Answer: $m = 1$
#_____ $\quad \frac{3}{4}y + 2 = \frac{1}{4}y + \frac{1}{2}x$	#_____ $\quad 6x - 1 + x = y + 8$
Answer: $m = \frac{1}{3}$	Answer: $m = 4$
#_____ $\quad y - 4 = 5$	#_____ $\quad \frac{1}{2}y + 4 = x - 3$

Now, go back through the circuit and circle all of the y-intercepts you identified from each of the equations. Find each y-intercept below and circle the letter below it. After circling all letters, mark out the ones you did not circle. The message will reveal itself!

-5	-3	1-	0	-2	6	-1	-14	-8	-6	-9	4	-4	12	-7	8	7	9
L	A	W	L	G	E	M	B	O	R	A	R	O	T	C	L	K	S