Honors Algebra 2
Circuit: Writing Quadratic EQs

Name: $\qquad$
Date: $\qquad$

Start with \#1 and work the problem. Find your answer and that becomes problem \#2. Continue in this manner until you have worked the whole circuit. Final answers are in written in standard form. You need to show all of the work to receive credit for doing the circuit.

| Answer: $\qquad$ \#1 Write the equation in standard form $y=-2(x+4)(x-1)$ | Answer: $x=\frac{5}{4}$ \# $\qquad$ What is the $x$-value of the vertex of the quadratic function $y=4 x^{2}-8 x+5$ ? |
| :---: | :---: |
| Answer: $x=1$ \# $\qquad$ What is the x -value of the vertex of the quadratic function $y=-\frac{1}{2}(x-7)(x+9)$ | Answer: $-\frac{1}{2}$ \# $\qquad$ Write the equation in standard form $y=(x-7)^{2}+2$ |
| Answer: $y=-2 x^{2}-6 x+8$ \# $\qquad$ Write the equation in standard form $y=\frac{1}{2}(4-x)(7+2 x)$ <br> To advance in circuit, find $a b$ | Answer: $y=x^{2}+4 x-5$ $\qquad$ Write the equation in standard form. |
| Answer: $y=x^{2}-14 x+51$ \# $\qquad$ Write the equation in standard form $y=3(x+1)^{2}-2$ | Answer: $y=x^{2}+12 x+32$ <br> \# $\qquad$ Write the equation in standard form. |


| Answer: -9 <br> \# $\qquad$ Write the equation of the quadratic function that $x$-intercepts of 2 and -8 and passes through the point $(1,18)$. <br> To advance in circuit, find y-intercept | Answer: $y=3 x^{2}+6 x+1$ \# $\qquad$ Write the equation of the quadratic function that passes through the vertex $(2,-3)$ and the point $(1,4)$. <br> To advance in circuit, find $h+k$ |
| :---: | :---: |
| Answer: $y=-\frac{1}{3} x^{2}+x$ <br> \# $\qquad$ Write the equation in standard form. | Answer: -1 $\qquad$ Write the equation of the quadratic function that passes through the points $(0,-1),(-1,6)$ and $(1,8)$. |
| Answer: $y=x^{2}-3 x+4$ \# $\qquad$ Write the equation of the quadratic function that passes through the points $(-2,2),(-1,5)$, and $(1,-1)$. <br> To advance find $a+b-c$ | Answer: $y=\frac{1}{2} x^{2}-2 x+3$ <br> \# $\qquad$ What is the axis of symmetry for the graph of $y=-2 x^{2}+5 x-1$ ? |
| Answer: 32 <br> \# $\qquad$ Write the equation of the quadratic function that has $x$-intercepts of -4 and -8 and passes through the point $(-2,12)$. | Answer: $y=8 x^{2}+x-1$ <br> \# $\qquad$ Write the equation of the quadratic function that passes through the points $(-1,8),(0,4)$, and $(1,2)$. |

