Algebra 2 Honors - Mr. Allen-Black Name_____ ID: 1

Quadratics in Standard Form - Converting & Graphing

Period____

Use the information provided to write the standard form equation of each parabola.

1) $f(x) = (x + 10)^2 + 8$

2) $f(x) = 8(x - 3)^2$

3) $f(x) = -(x - 8)^2 + 5$

4) $f(x) = 3(x + 2)^2 - 9$

5) $f(x) = -\frac{1}{2}(x - 10)^2 - 3$

6) $f(x) = 3(x + 7)^2 + 8$

Use the information provided to write the vertex form equation of each parabola.

7) $y = -3x^2 + 24x - 39$

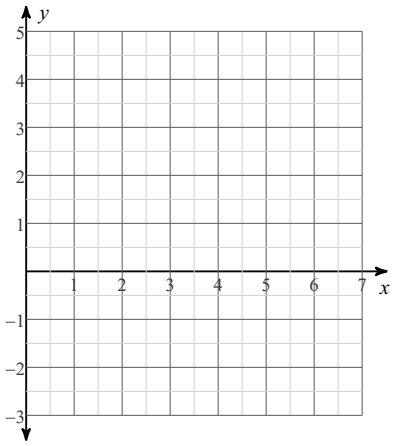
8) $y = x^2 - 6x + 1$

9) $y = x^2 - 14x + 59$

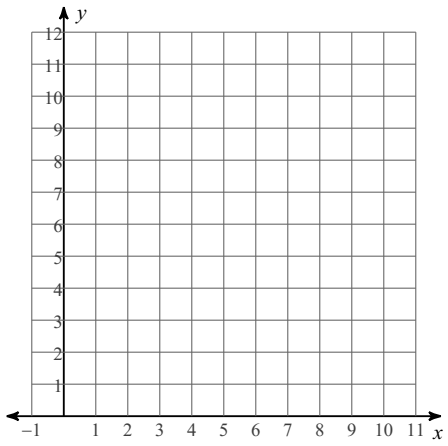
10) $y = -3x^2 + 5$

For each quadratic function, find the vertex, then sketch the graph of each function.

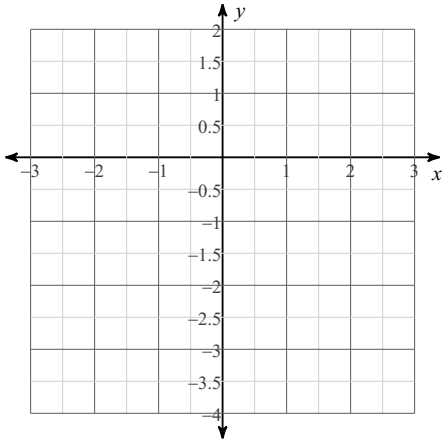
11) $y = x^2 - 8x + 15$



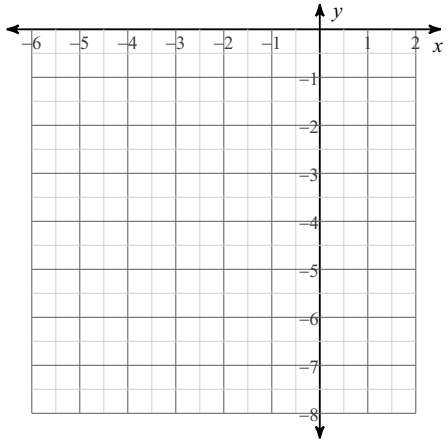
12) $y = 2x^2 - 8x + 11$



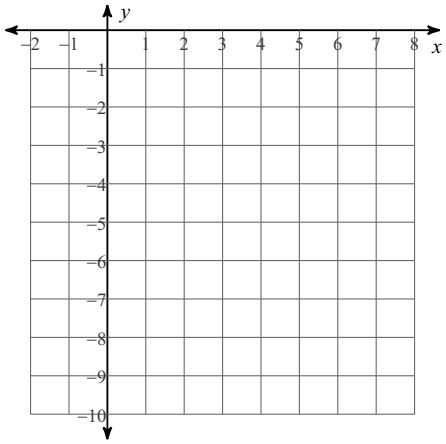
13) $y = -x^2 - 2x$



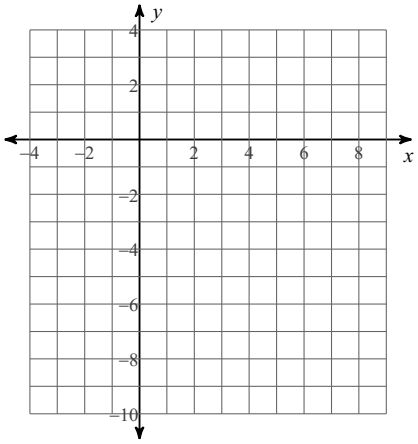
14) $y = -x^2 - 4x - 7$



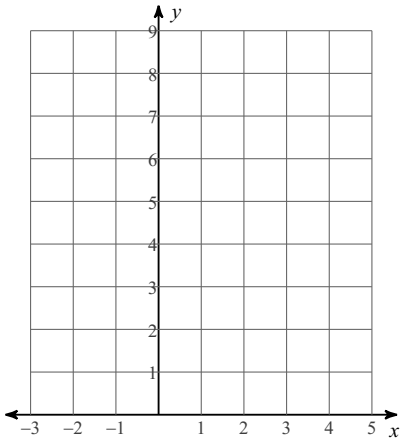
15) $y = -2x^2 + 4x - 3$



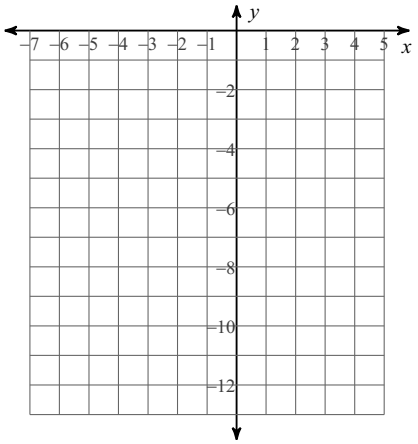
16) $y = -3x^2 + 24x - 45$



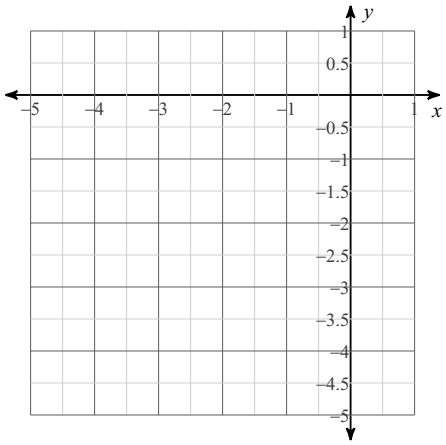
17) $y = x^2 + 2x + 5$



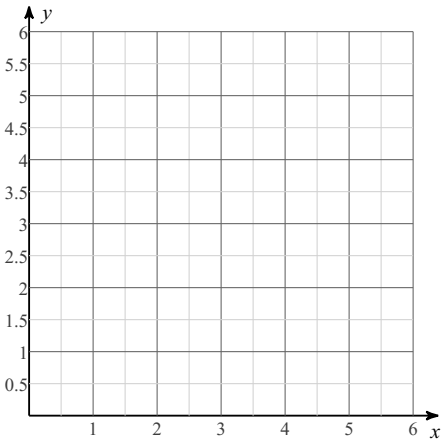
18) $y = -2x^2 - 4x - 6$



19) $y = \frac{1}{2}x^2 + 2x - 1$



20) $y = x^2 - 4x + 5$



Answers to Quadratics in Standard Form - Converting & Graphing (ID: 1)

1) $f(x) = x^2 + 20x + 108$

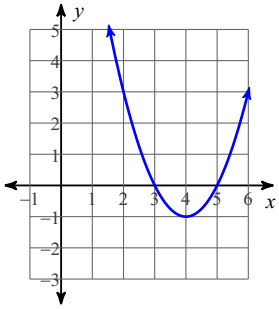
3) $f(x) = -x^2 + 16x - 59$

5) $f(x) = -\frac{1}{2}x^2 + 10x - 53$

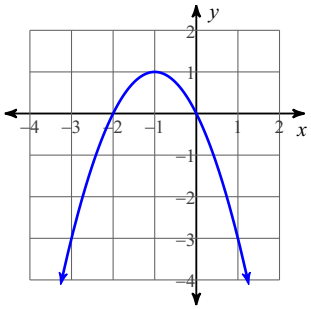
7) $y = -3(x - 4)^2 + 9$

9) $y = (x - 7)^2 + 10$

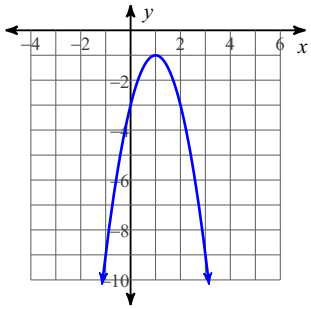
11)



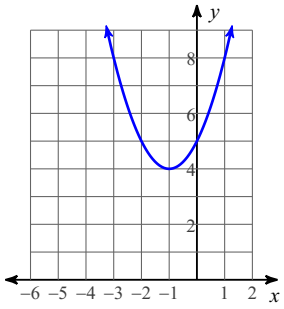
13)



15)



17)



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