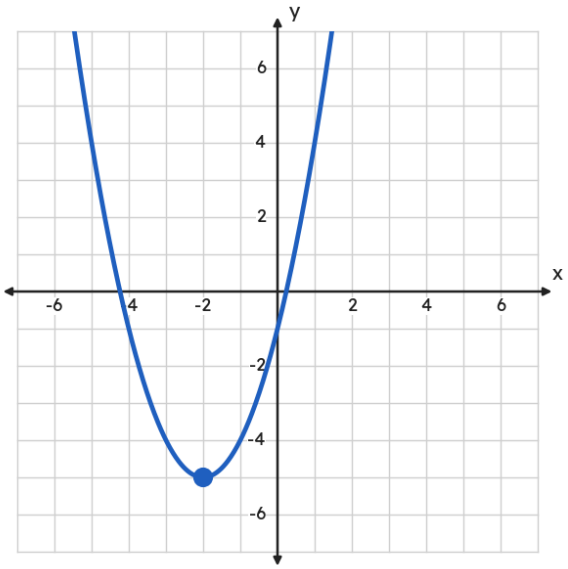
Name: _____ Date: _____

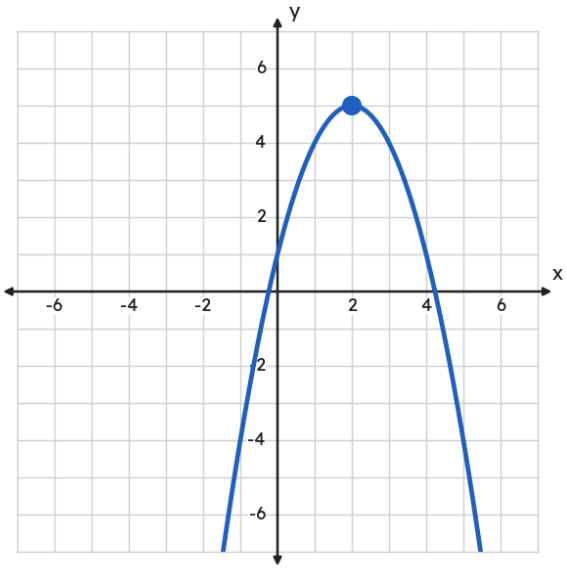
Vertex Form - Medium

Graph each function and describe how it is transformed from the graph of $y = x^2$. For a graph that is drawn, write its equation in vertex form.

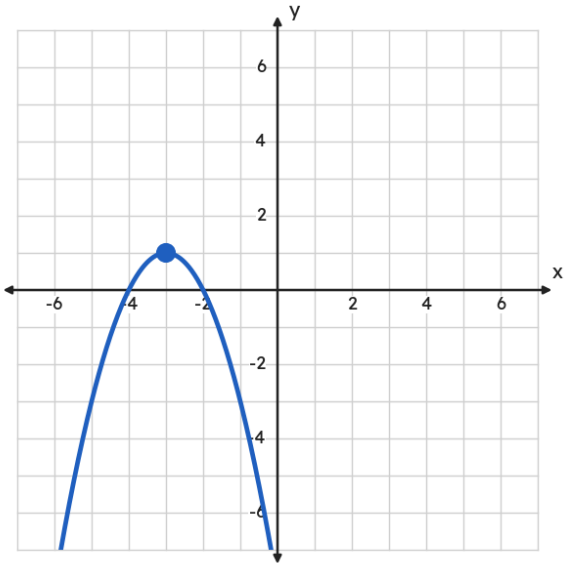
1. Write the equation of the parabola in vertex form.



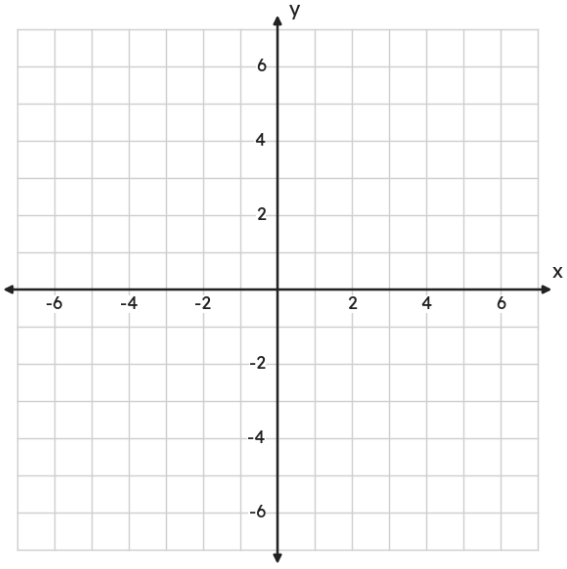
2. Write the equation of the parabola in vertex form.



3. Write the equation of the parabola in vertex form.



4. Graph $y = 2(x + 3)^2 - 3$.

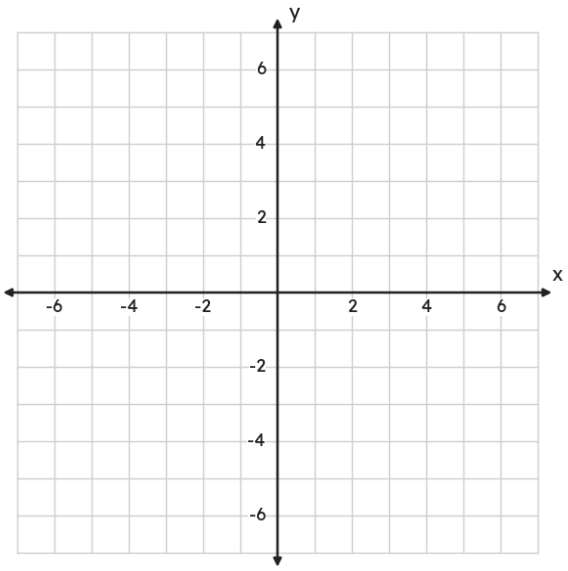


Name: _____ Date: _____

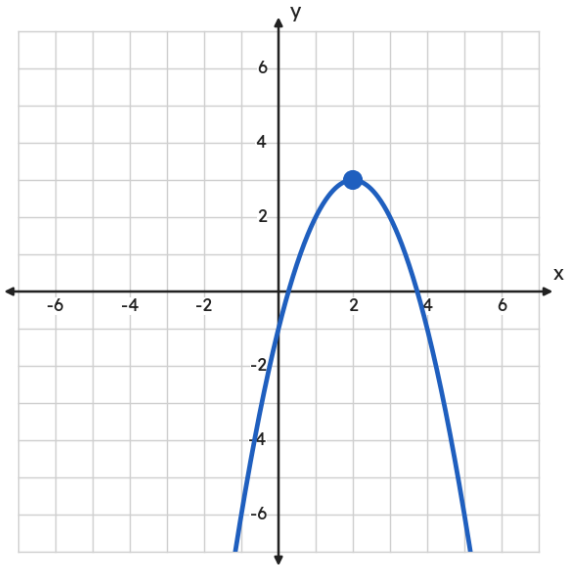
Vertex Form - Medium

Graph each function and describe how it is transformed from the graph of $y = x^2$. For a graph that is drawn, write its equation in vertex form.

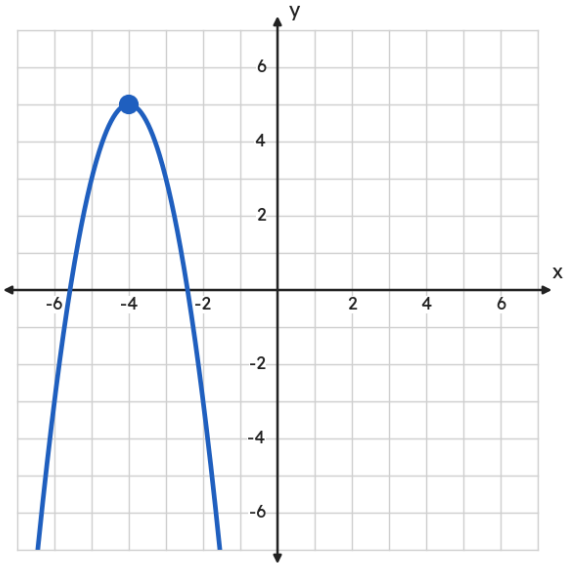
5. Graph $y = -2(x + 1)^2 + 1$.



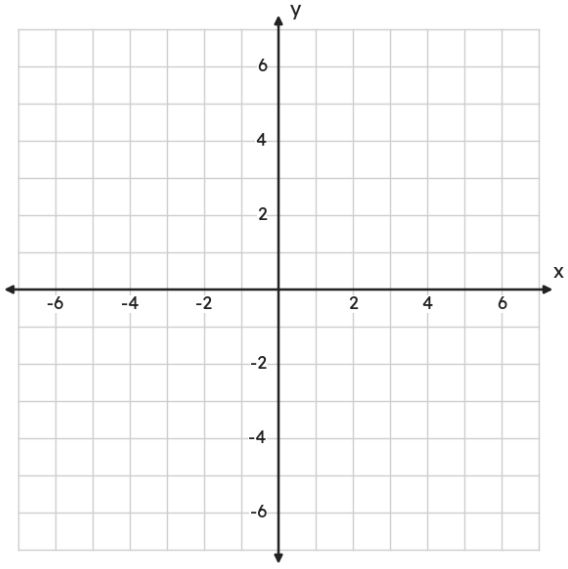
6. Write the equation of the parabola in vertex form.



7. Write the equation of the parabola in vertex form.

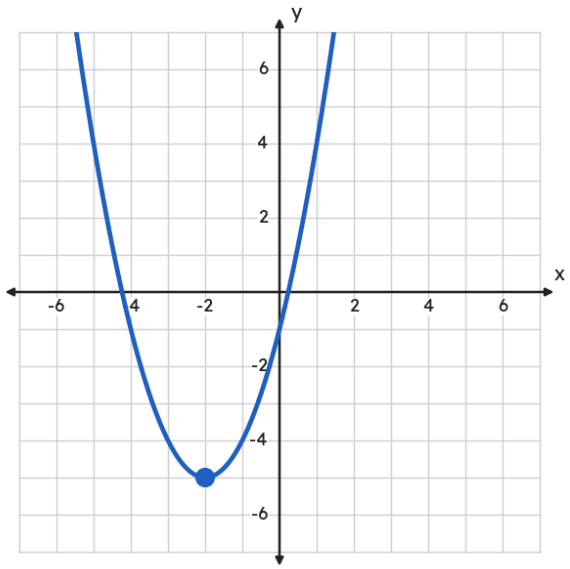


8. Graph $y = (x - 4)^2 - 1$.



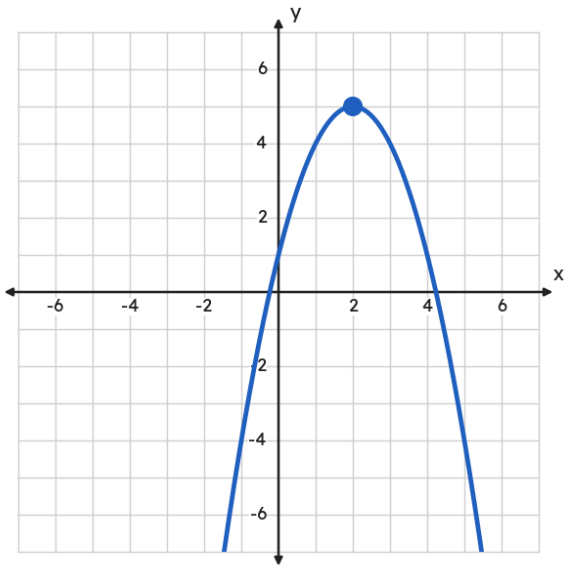
Vertex Form - Medium - Answer Key

1. Write the equation of the parabola in vertex form.



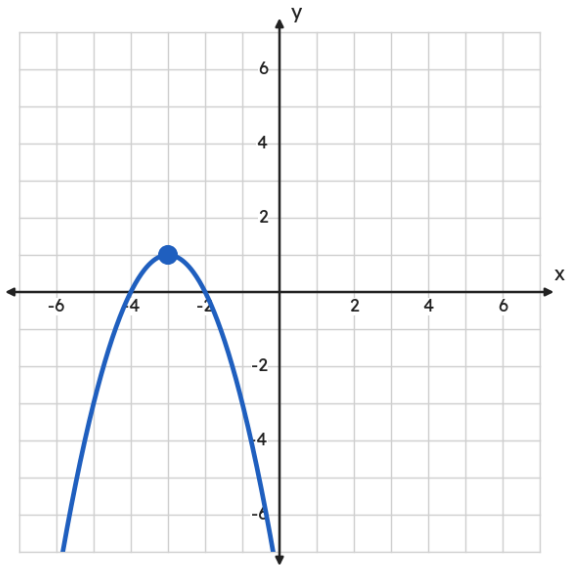
$y = (x + 2)^2 - 5$

2. Write the equation of the parabola in vertex form.



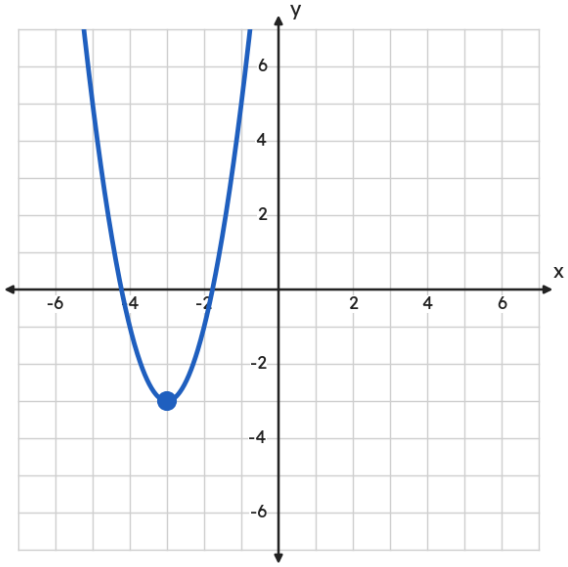
$y = -(x - 2)^2 + 5$

3. Write the equation of the parabola in vertex form.



$y = -(x + 3)^2 + 1$

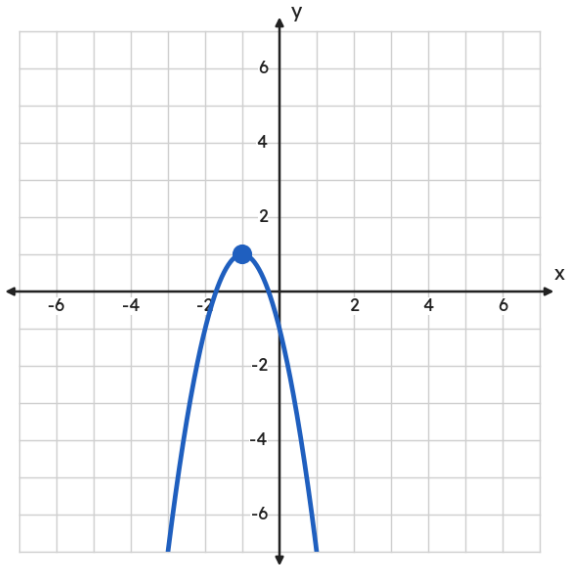
4. Graph $y = 2(x + 3)^2 - 3$.



vertex (-3, -3); left 3, down 3, vertical stretch by 2

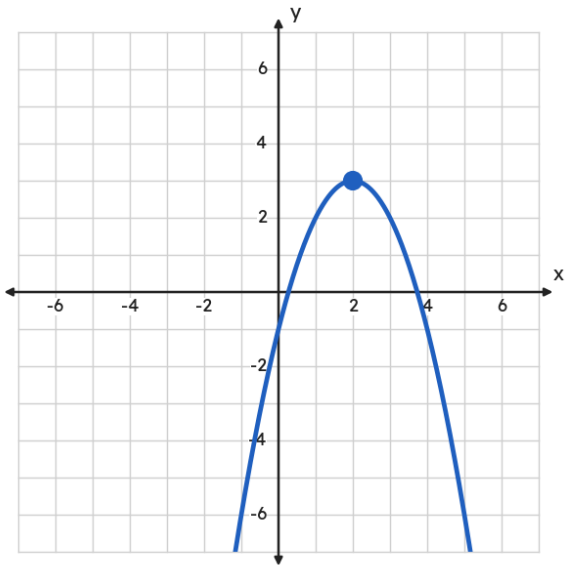
Vertex Form - Medium - Answer Key

5. Graph $y = -2(x + 1)^2 + 1$.



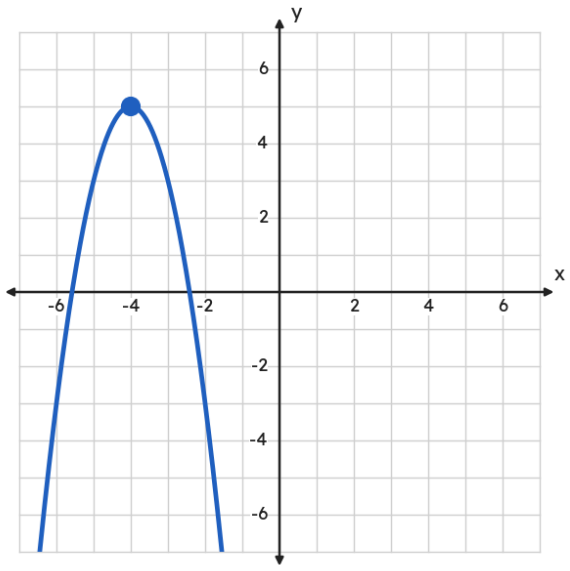
vertex (-1, 1); left 1, up 1, vertical stretch by 2, reflect in x-axis

6. Write the equation of the parabola in vertex form.



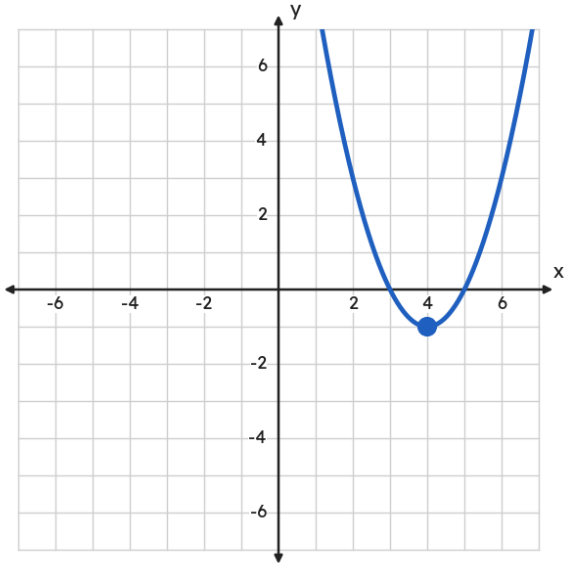
$y = -(x - 2)^2 + 3$

7. Write the equation of the parabola in vertex form.



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

8. Graph $y = (x - 4)^2 - 1$.



vertex (4, -1); right 4, down 1