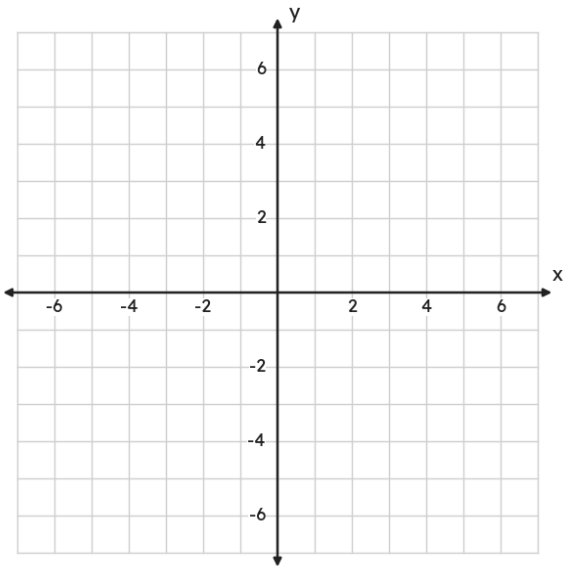
Name: _____ Date: _____

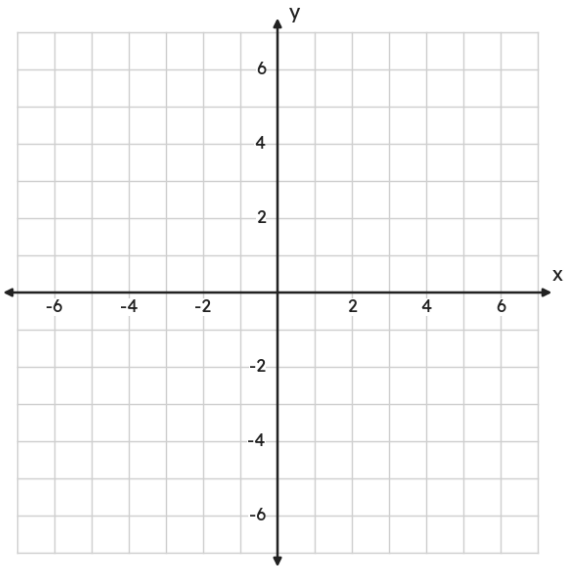
Vertex Form - Medium

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.

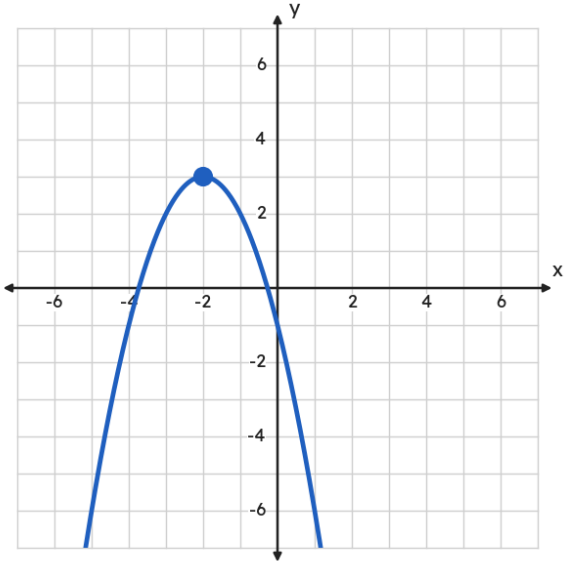
1. Graph $y = -(1/2)(x - 3)^2$.



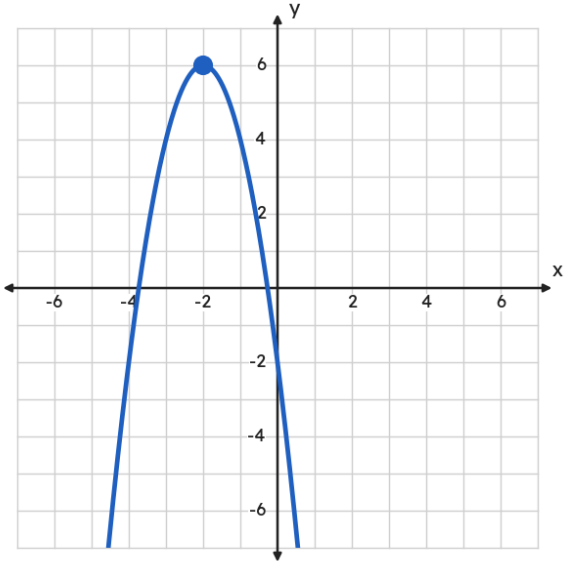
2. Graph $y = (x - 4)^2 - 6$.



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



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

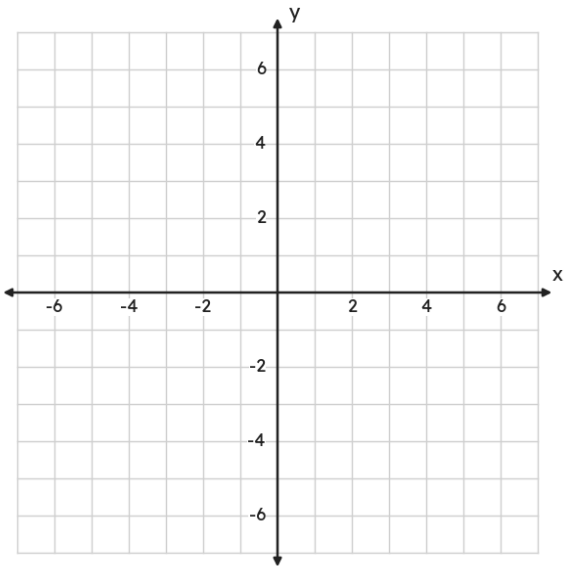


Name: _____ Date: _____

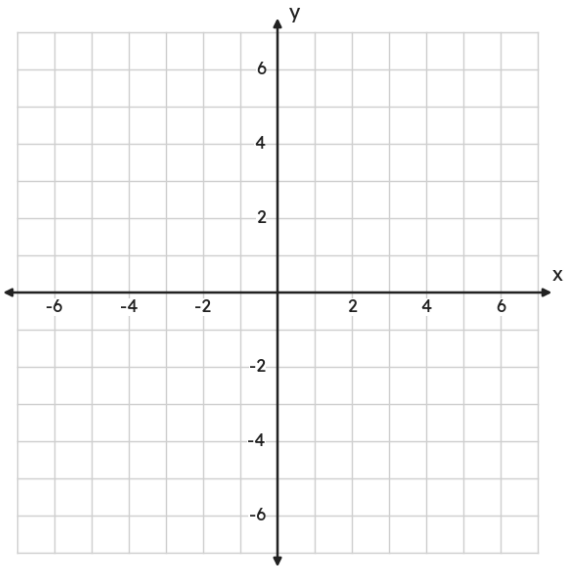
Vertex Form - Medium

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.

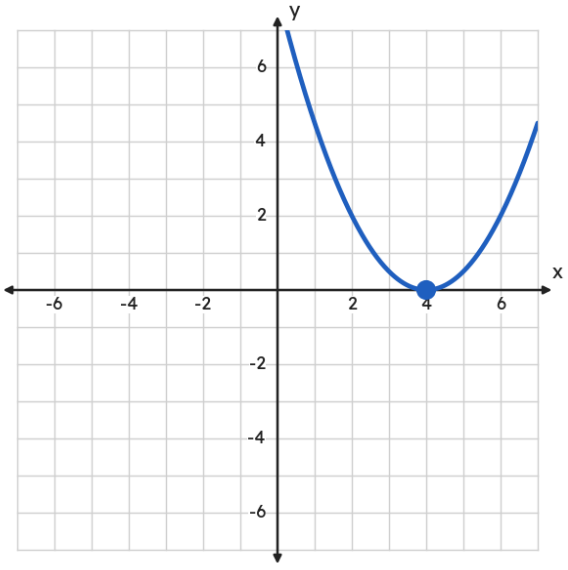
5. Graph $y = (x + 2)^2 + 1$.



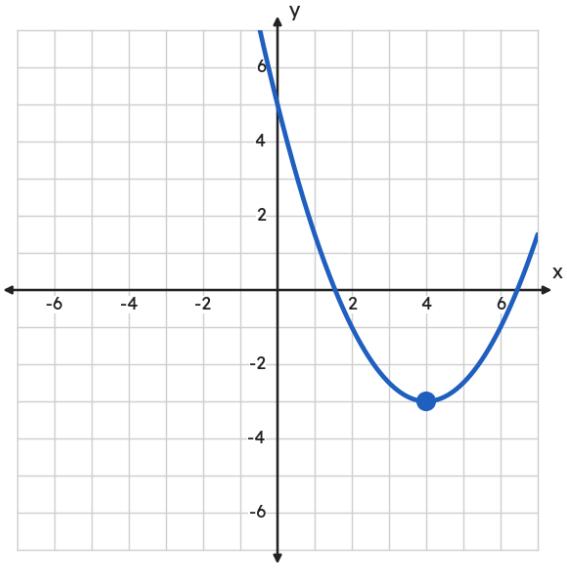
6. Graph $y = 2(x - 1)^2 + 1$.



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

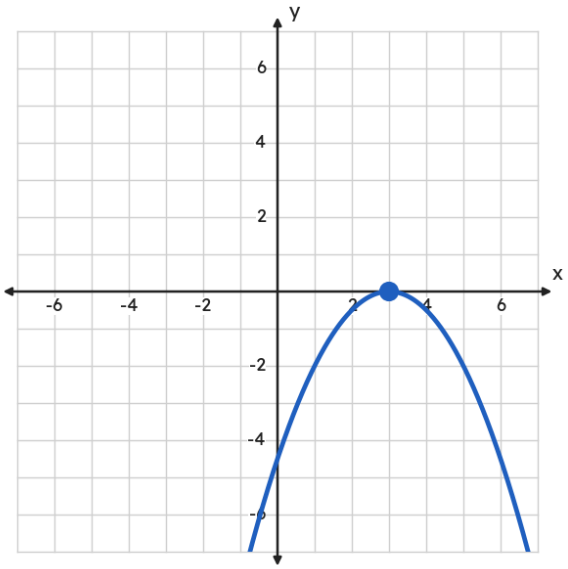


8. Write the equation of the parabola in vertex form.



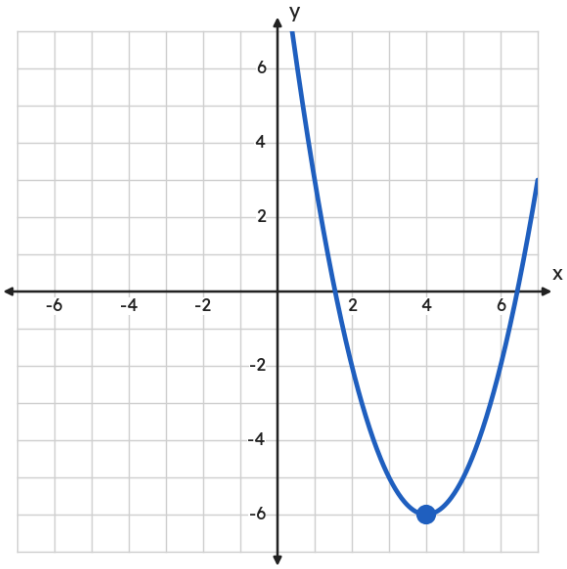
Vertex Form - Medium - Answer Key

1. Graph $y = -(1/2)(x - 3)^2$.



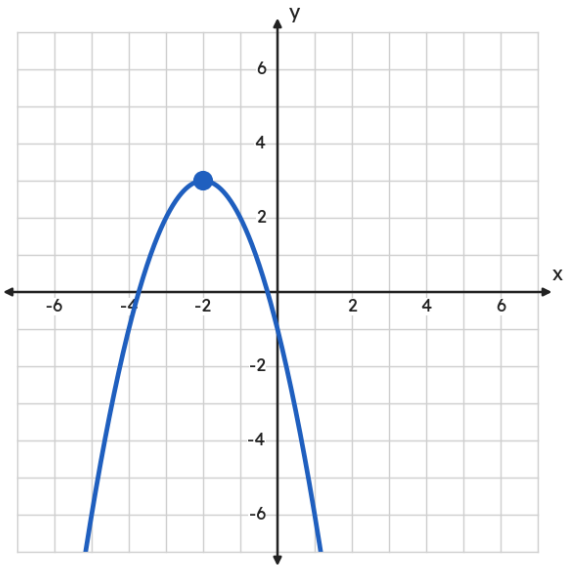
vertex (3, 0); right 3, vertical shrink by 1/2, reflect in x-axis

2. Graph $y = (x - 4)^2 - 6$.



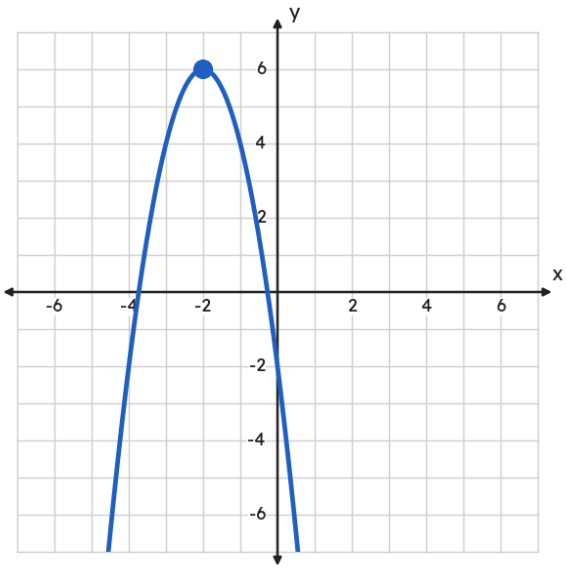
vertex (4, -6); right 4, down 6

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



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

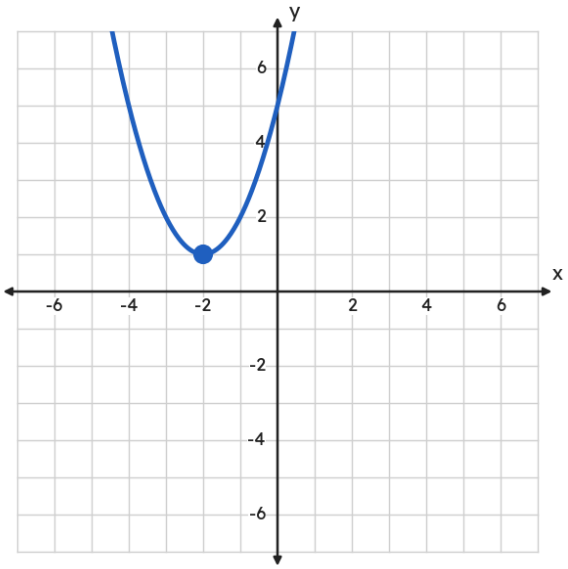
4. Write the equation of the parabola in vertex form.



$y = -2(x + 2)^2 + 6$

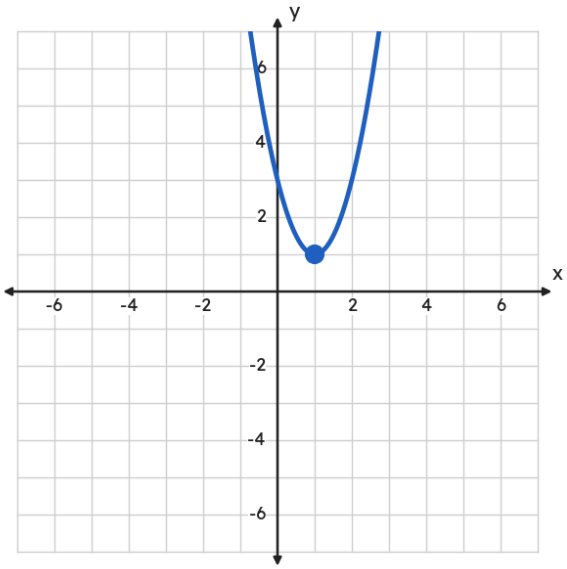
Vertex Form - Medium - Answer Key

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



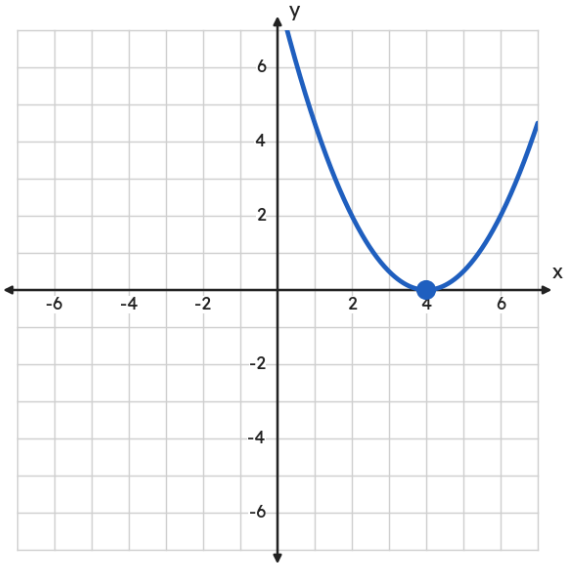
vertex (-2, 1); left 2, up 1

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



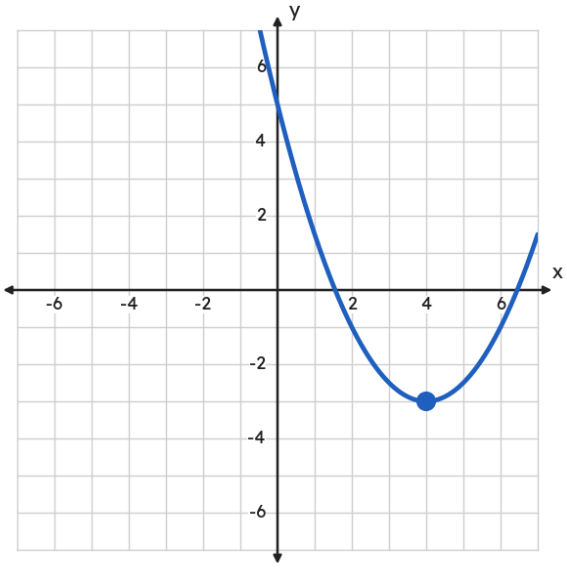
vertex (1, 1); right 1, up 1, vertical stretch by 2

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



$y = (1/2)(x - 4)^2$

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



$y = (1/2)(x - 4)^2 - 3$