

8.8 I can use transformations to draw the graph of quadratic functions.

Write the equation of each quadratic function in vertex form.

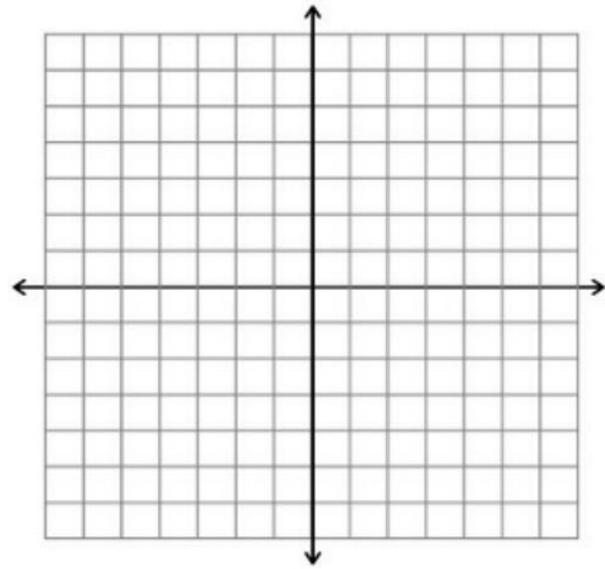
1. Parent Function  $y = x^2$

Stretch by 2

Horizontal shift left 3 units

Vertical Shift down 5 units

Equation:



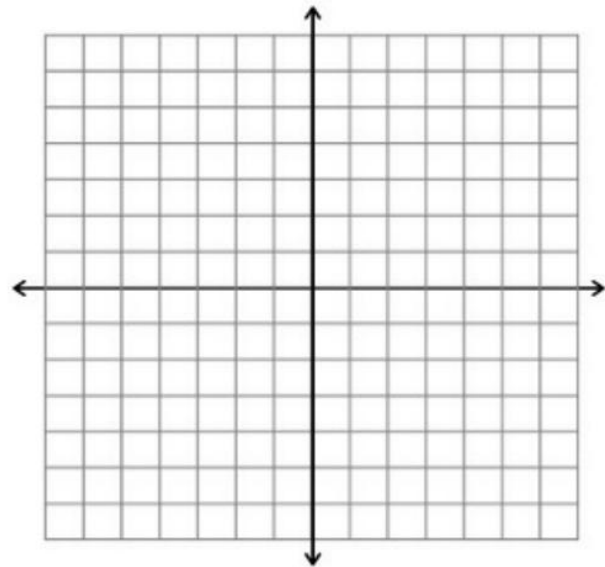
2. Parent Function  $y = x^2$

Reflection across the x axis

Horizontal shift right 4 units

Vertical Shift down 2 units

Equation:

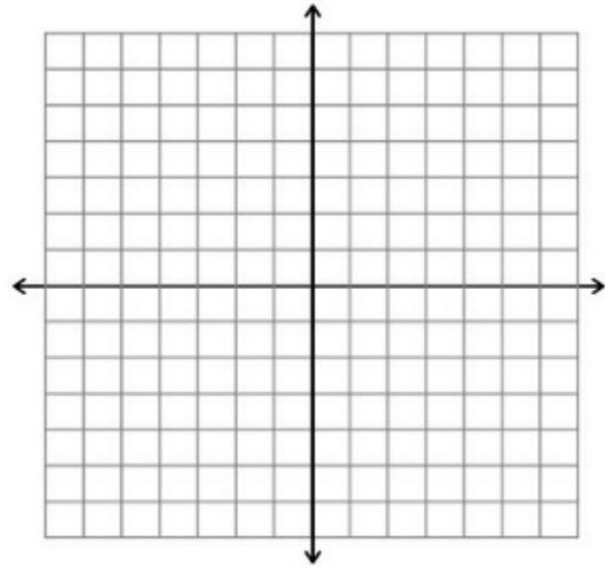


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3. Parent Function  $y = x^2$

Reflection across the x axis  
Shrink by a factor of  $1/2$   
Vertical Shift down 6 units

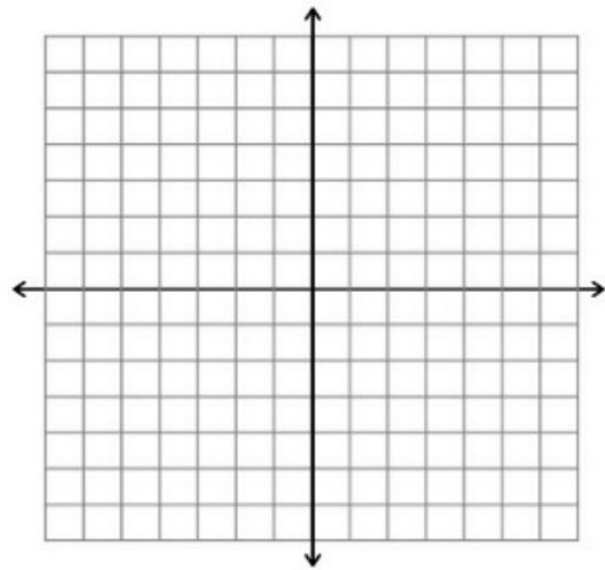
Equation:



4. Parent Function  $y = x^2$

Reflection across the x axis  
Horizontal shift right 8 units

Equation:

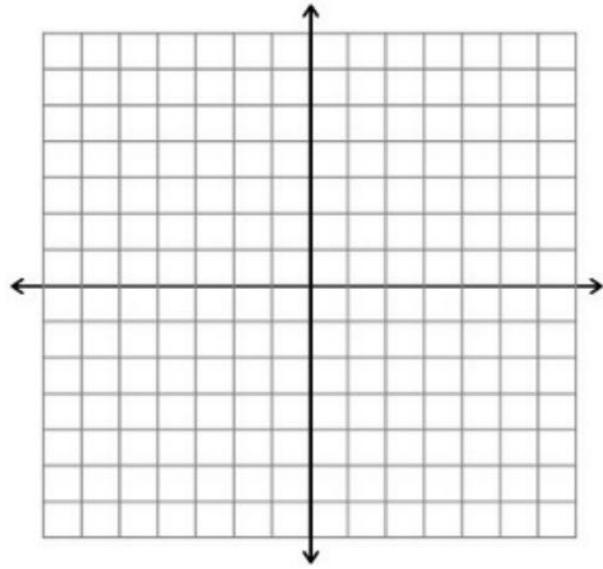


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5. Parent Function  $y = x^2$

Reflection across the x axis  
Shrink by a factor of  $1/3$   
Horizontal shift right 4  
Vertical Shift down 9

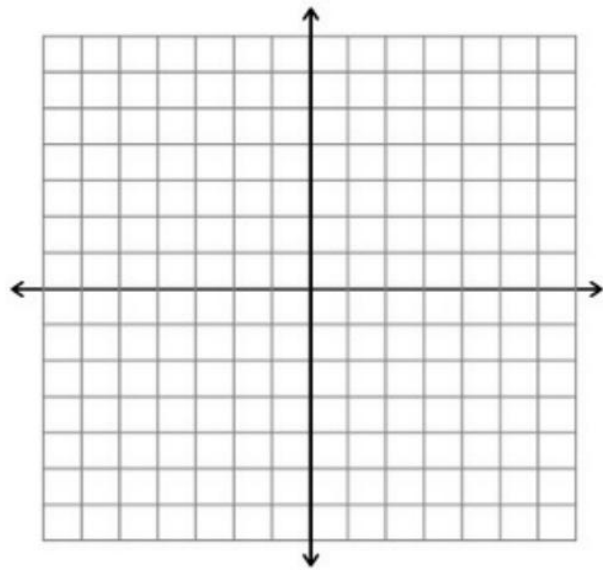
Equation:



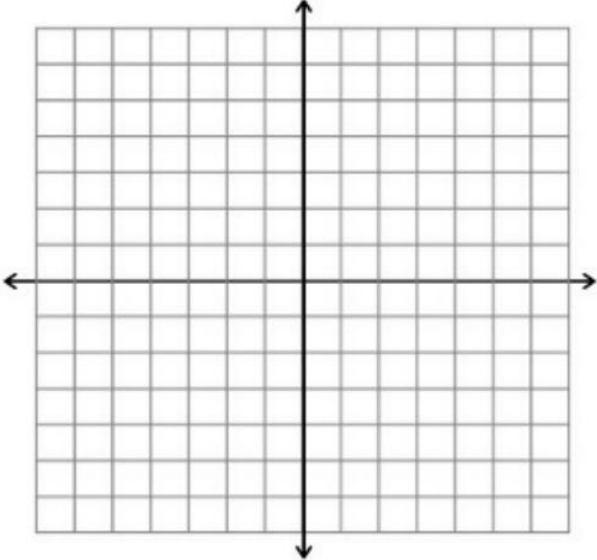
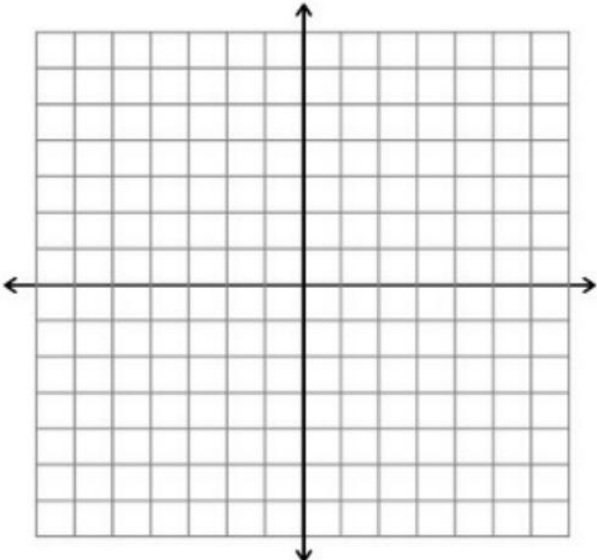
6. Parent Function  $y = x^2$

Stretch by 5  
Horizontal shift left 7  
Vertical Shift up 4

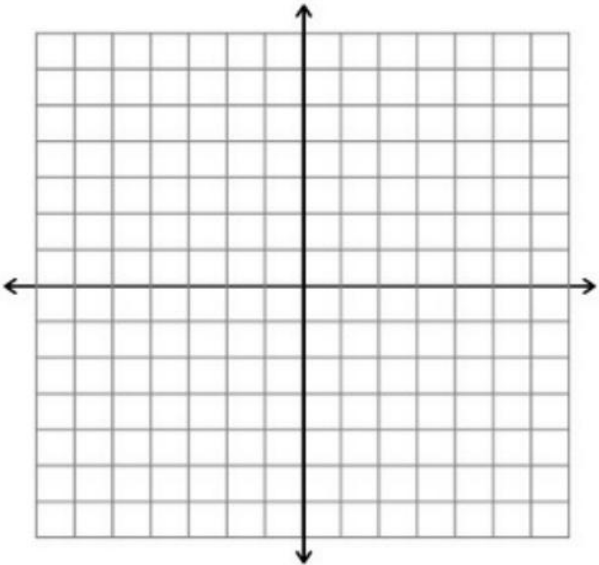
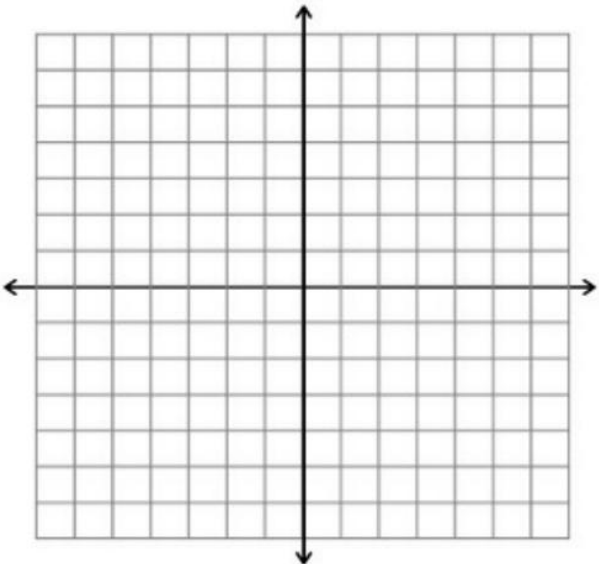
Equation:



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<p>7. Parent Function <math>y = x^2</math></p> <p>Shrink by a factor of .25 Horizontal shift right 2 Vertical Shift up 6</p> <p>Equation:</p>	
<p>8. Parent Function <math>y = x^2</math></p> <p>Reflection across the x axis Shrink by a factor of 5/8 Horizontal shift left 1 unit Vertical Shift down 11 units</p> <p>Equation:</p>	

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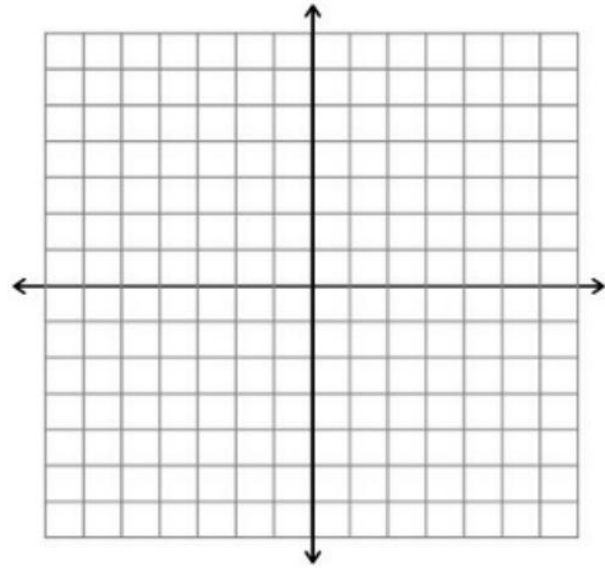
<p>9. Parent Function <math>y = x^2</math></p> <p>Reflection across the x axis Stretch by 7 Horizontal shift left 8 Vertical Shift up 6</p> <p>Equation:</p>	 A blank coordinate plane with a grid. The x-axis and y-axis are shown with arrows at their ends. The grid consists of 14 columns and 14 rows of squares, centered around the origin (0,0).
<p>10. Parent Function <math>y = x^2</math></p> <p>Reflection across the x axis Horizontal shift left 6 Vertical Shift down 7</p> <p>Equation:</p>	 A blank coordinate plane with a grid. The x-axis and y-axis are shown with arrows at their ends. The grid consists of 14 columns and 14 rows of squares, centered around the origin (0,0).

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11. Parent Function  $y = (x + 2)^2$

Horizontal shift right 4

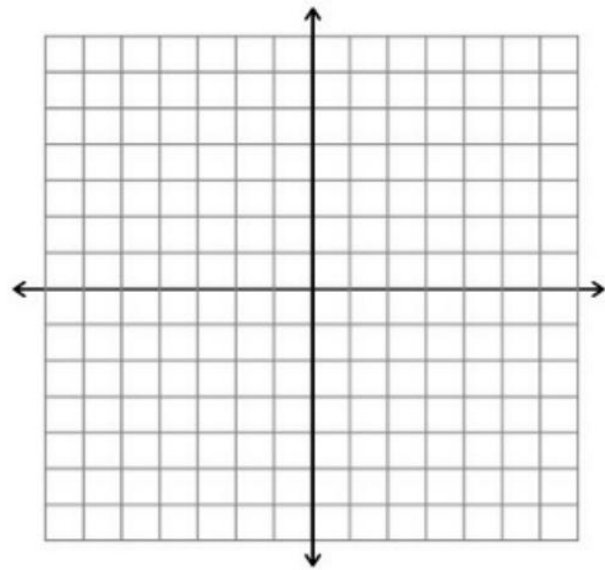
Equation:



12. Parent Function  $y = (x - 5)^2$

Horizontal shift left 9

Equation:

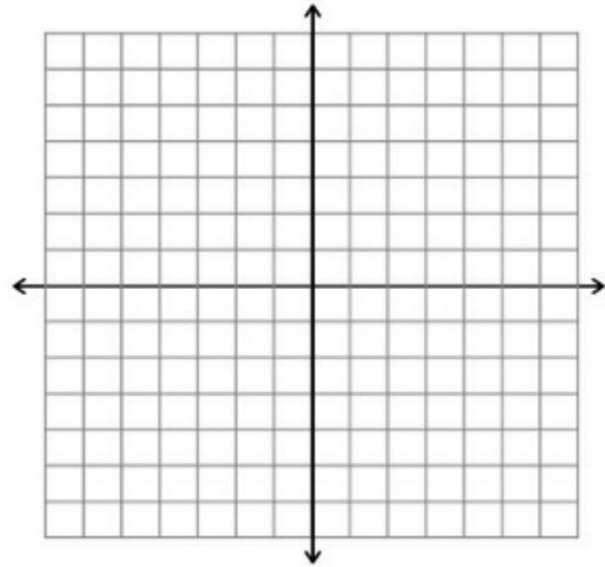


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13. Parent Function  $y = x^2 + 3$

Vertical shift up 2

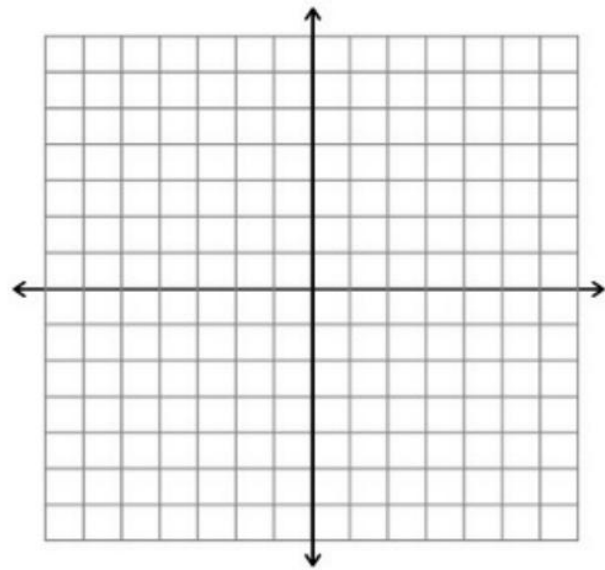
Equation:



14. Parent Function  $y = x^2 - 5$

Horizontal shift up 6

Equation:



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15. Parent Function  $y = (x + 2)^2 + 1$

Horizontal shift right 3

Vertical Shift down 2

Equation:

