Quadratic Transformations Worksheet

1. Write an equation for the quadratic relation that results from each transformation.

   a. The graph of $y = x^2$ is translated 4 units up

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   b. The graph of $y = x^2$ is translated 5 units down

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   c. The graph of $y = x^2$ is translated 8 units to the left

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   d. The graph of $y = x^2$ is translated 6 units to the right

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2. Sketch the graph of each parabola using at least three points at sufficient distances. Describe the transformation from the graph of $y = x^2$

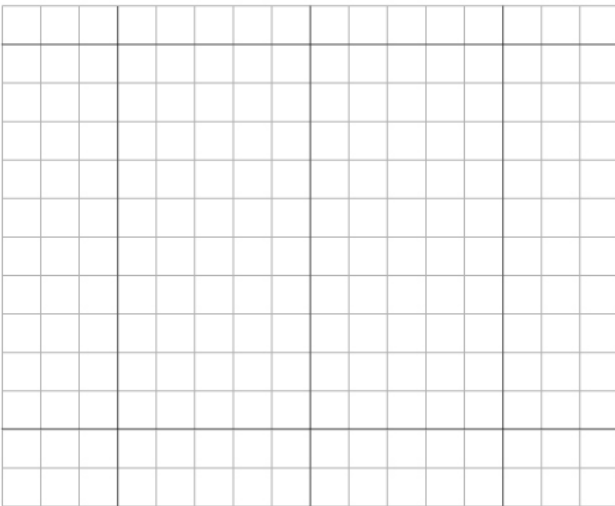   a. $y = x^2 - 5$

   b. $y = (x - 6)^2$

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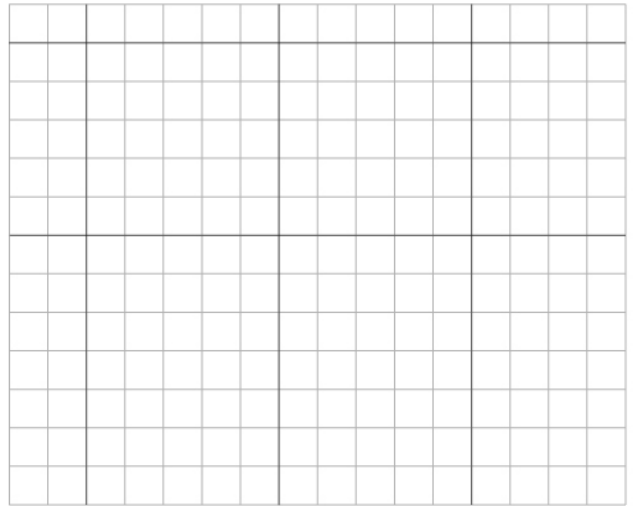
   c. $y = 3x^2$

   d. $y = x^2 + 0.5$

Quadratic Transformations Worksheet

MATH MONKS

1. Write an equation for the quadratic relation that results from each transformation.

   a. The graph of $y = x^2$ is translated 4 units up — $y = x^2 + 6$

   b. The graph of $y = x^2$ is translated 5 units down — $y = x^2 - 5$

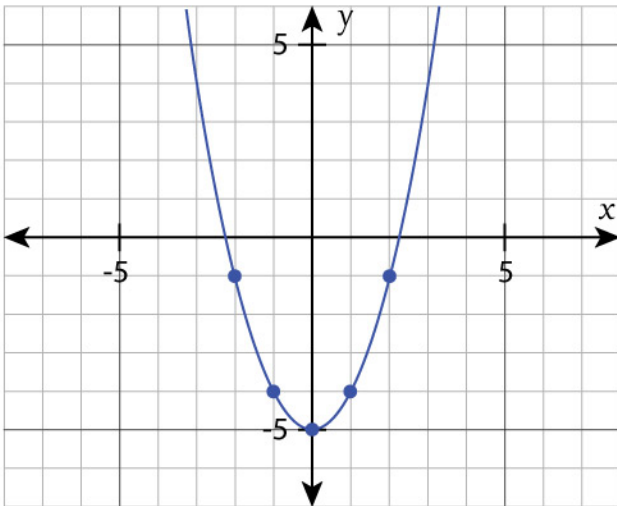   c. The graph of $y = x^2$ is translated 8 units to the left — $y = (x + 8)^2$

   d. The graph of $y = x^2$ is translated 6 units to the right — $y = (x - 6)^2$
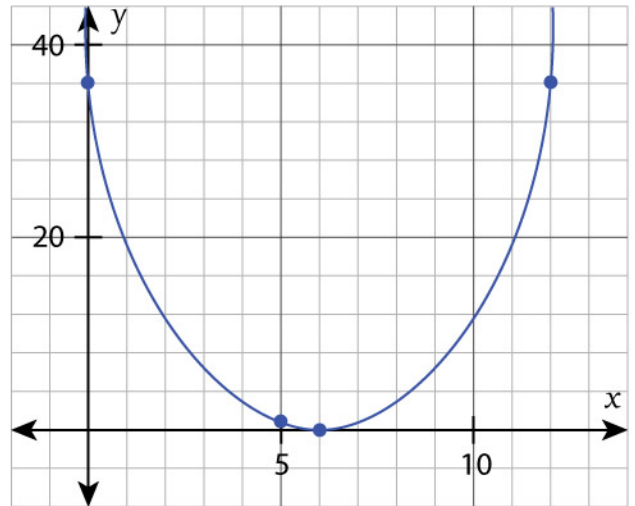
2. Sketch the graph of each parabola using at least three points at sufficient distances. Describe the transformation from the graph of $y = x^2$
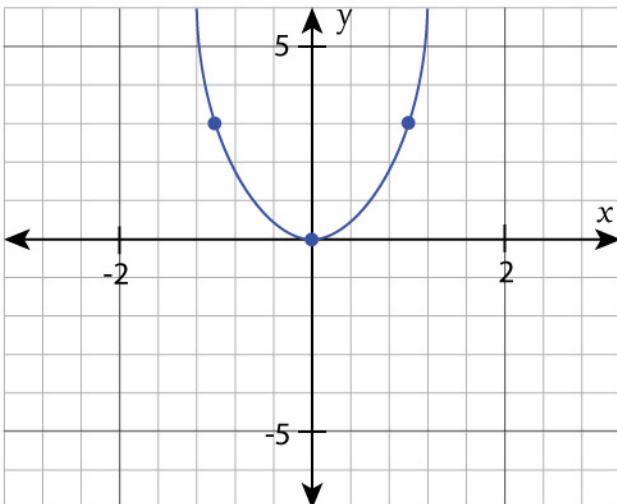
   a. $y = x^2 - 5$

   The parabola is translated 5 units downwards

   b. $y = (x - 6)^2$
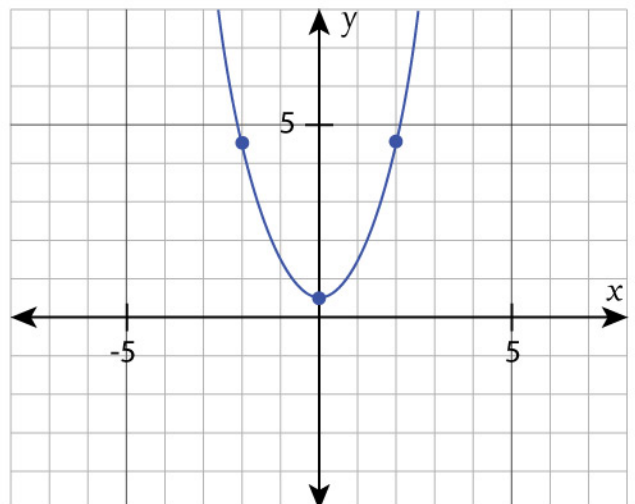

   The parabola is translated 6 units to the right

   c. $y = 3x^2$

   The parabola is stretched by a factor of 3

   d. $y = x^2 + 0.5$

   The parabola is translated 0.5 units upwards