

Symmetries of Graphs – in book: Section 3.4 p. 172

Determine whether each function is an even function, an odd function, or neither.

1. $y = x^5 - 4x$

2. $y = 6x^3 - 3x + 5$

3. $y = x^2 - 64$

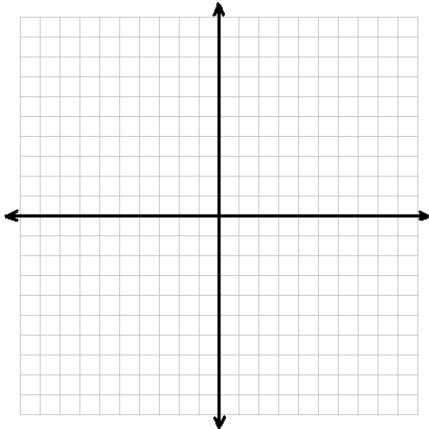
4. $y = 6 - 6x^2 + x^8$

5. $y = 5x^2 + 6x - 9$

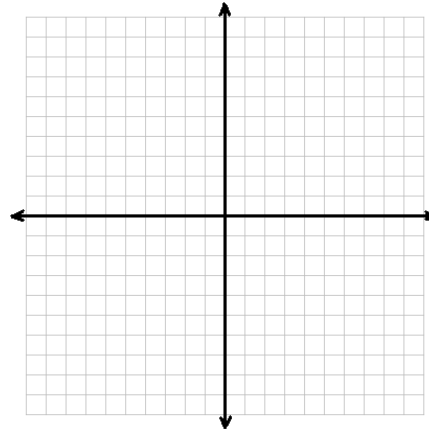
6. $y = -3x^9 + 4x^5$

Graph each equation and determine whether the graph is symmetric with respect to the x -axis, the y -axis, or the origin.

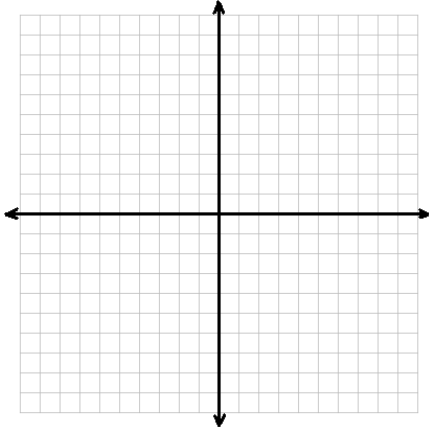
7. $y = -6x$



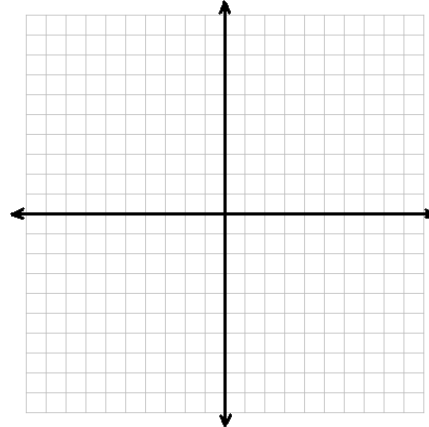
8. $y = 6x^4 - 3x^2 + 1$



9. $x = y^2 + 4$

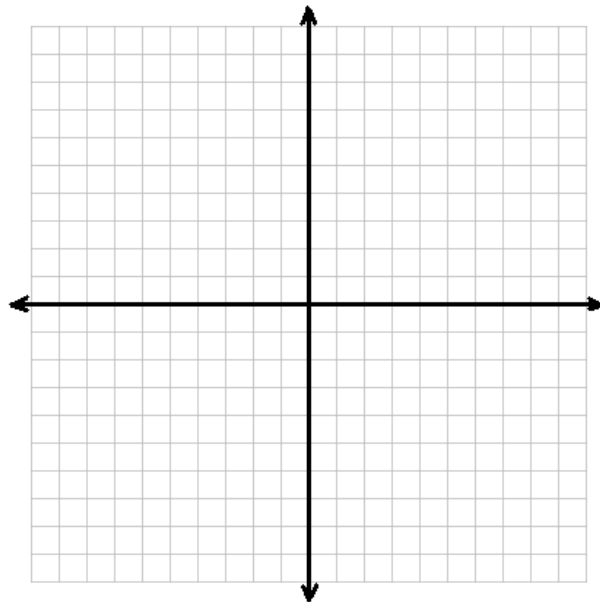


10. $x^2 + y^2 = 9$

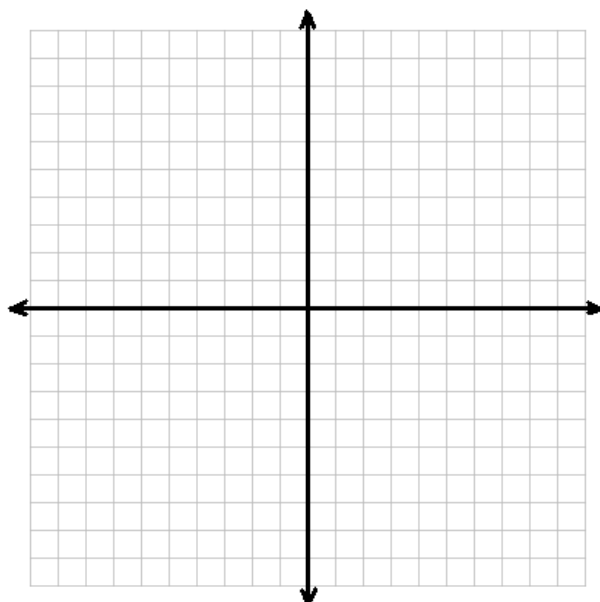


Find the equations for the asymptotes of each equation below and draw the asymptotes on the graph. Then graph the function.

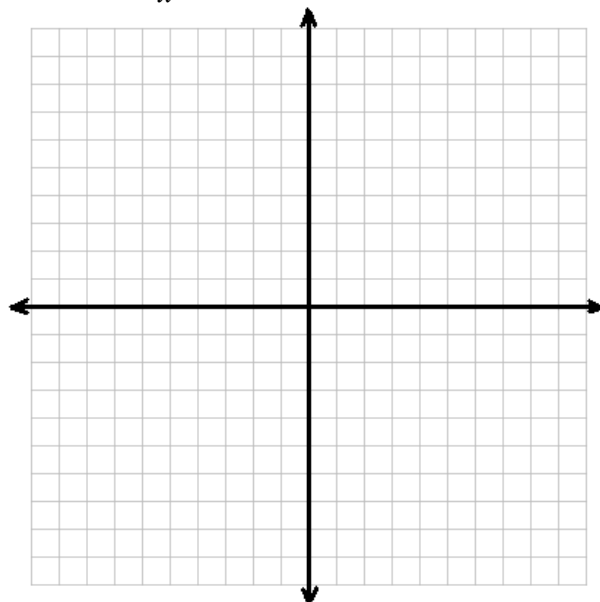
11. $f(x) = \frac{1}{x-1}$



12. $f(x) = \frac{1}{x+4}$



13. $f(x) = \frac{1}{x} + 5$



14. $f(x) = \frac{1}{x-2} - 3$

