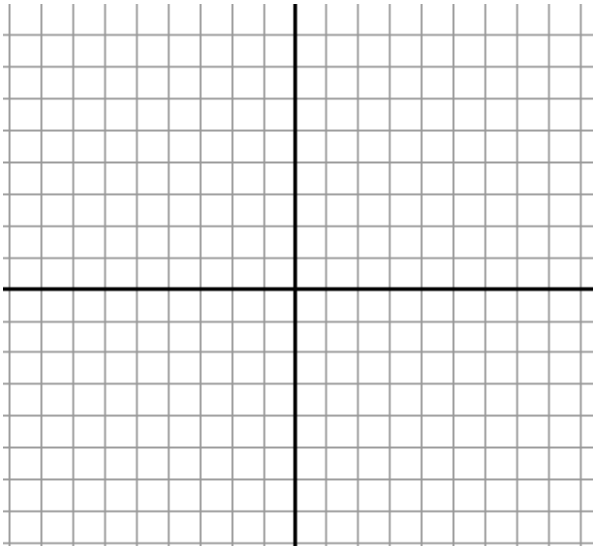
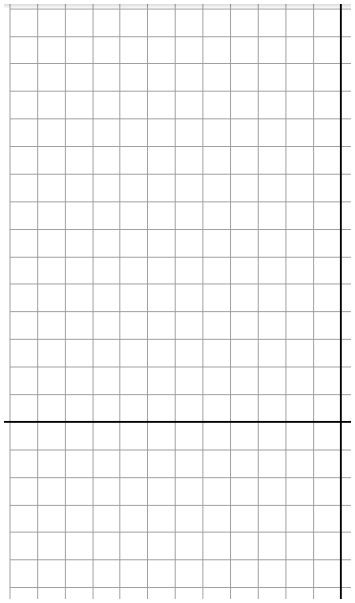
Name:_____ **Date:**_____

Graph each function.

1. $y = 4x^2 + 16x + 7$



2. $y = (x + 8)^2 - 3$



Identify the axis of symmetry, maximum or minimum value, and the domain and range of each function.

3. $y = \frac{1}{2}(x - 6)^2 + 7$

_____

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

_____

Write each expression in factored form.

5. $-x^2 + 3x$

_____

6. $k^2 - 5k - 24$

_____

7. $4y^2 - 9$

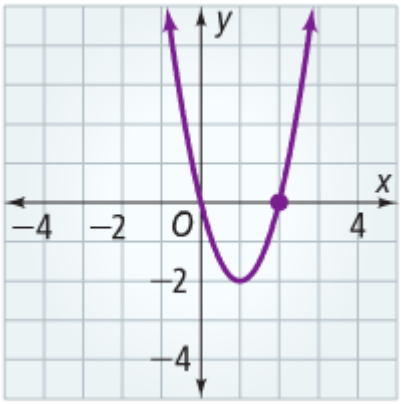
8. $2x^2 + 7x + 6$

Find a quadratic model in standard form for each set of values.

9. $(0, 3), (1, 10), (2, 19)$

Write the equation of each parabola in vertex form.

10.



11. Write the expression $3x^4 - 12x^3 - 36x^2$ in factored form.