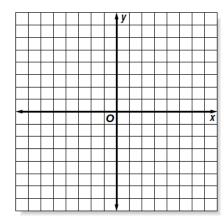
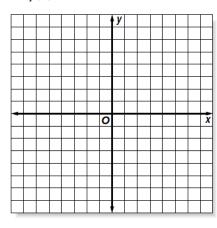
Quadratic Functions

Graph each parabola.

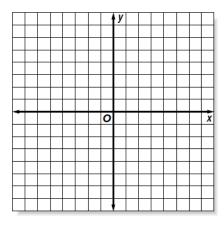
1.
$$f(x) = x^2$$



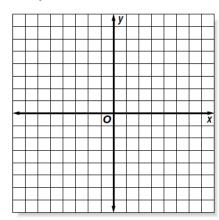
2.
$$f(x) = x^2 + 5$$



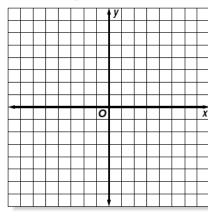
3.
$$f(x) = x^2 - 4$$



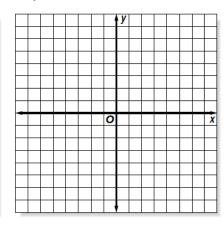
4.
$$f(x) = 4x^2$$



5.
$$f(x) = \frac{1}{4}x^2$$



6.
$$f(x) = -6x^2$$



- 7. How are graphs 1, 2, and 3 similar? _____
- 8. How are graphs 4, 5, and 6 similar?
- **9.** How do graphs 4 and 5 differ from graph 6? _____
- **10.** Give the vertex and the equation for the axis of symmetry for each graph.
 - axis of symmetry vertex
 - vertex axis of symmetry
 - axis of symmetry vertex
- axis of symmetry vertex
- vertex axis of symmetry
- axis of symmetry vertex