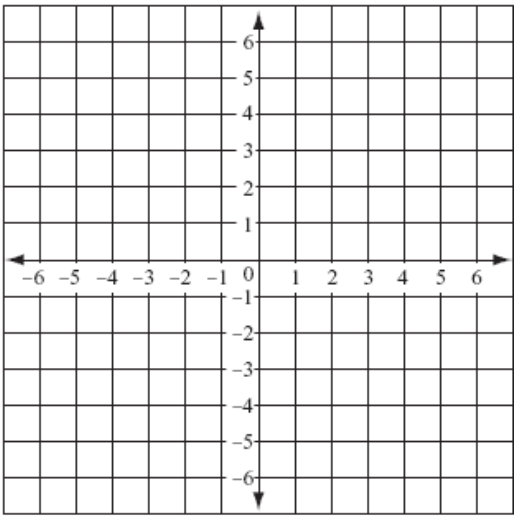
Algebra 2 NAME:_____

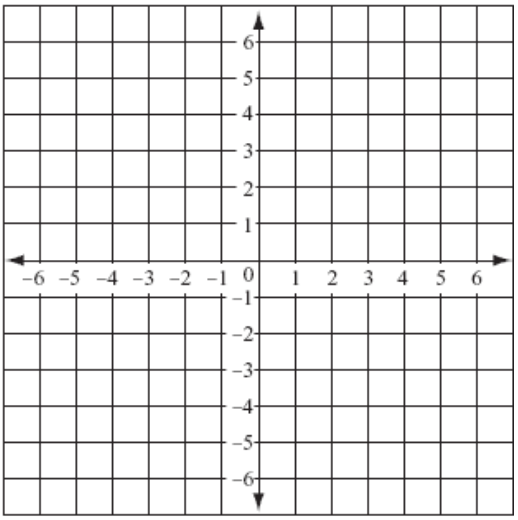
Chapter 9 **PRACTICE** Quest (9.4–9.6)

Graph the parabolas; identify vertex coordinates and equation of axis o' symmetry

1. $y = 3x^2$



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



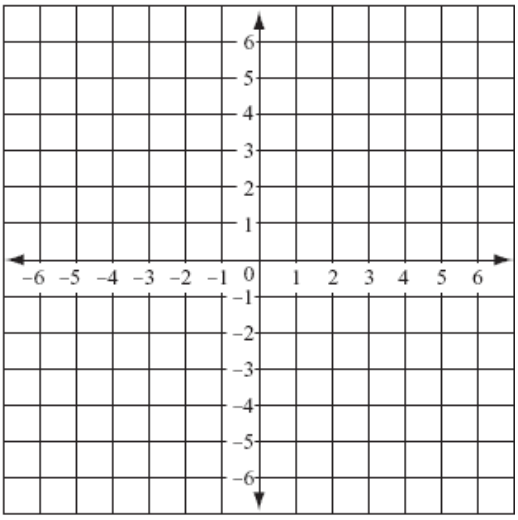
1. Vertex_____

Axis of Symmetry: _____

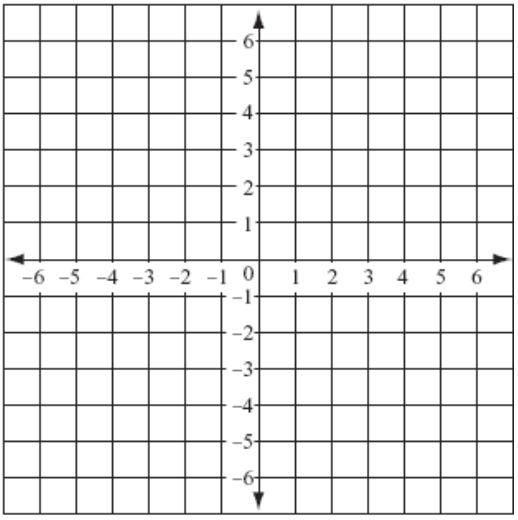
2. Vertex_____

Axis of Symmetry: _____

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



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



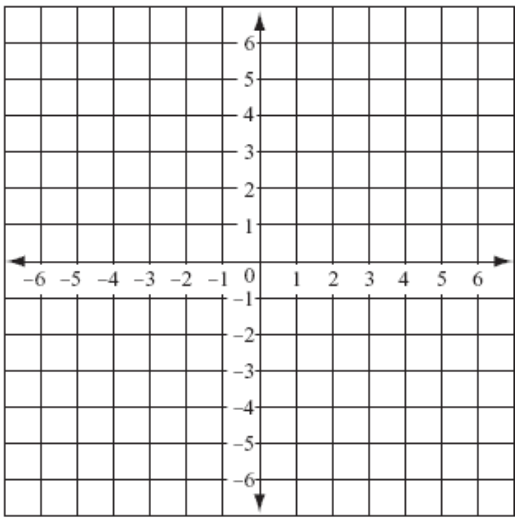
3. Vertex_____

Axis of Symmetry: _____

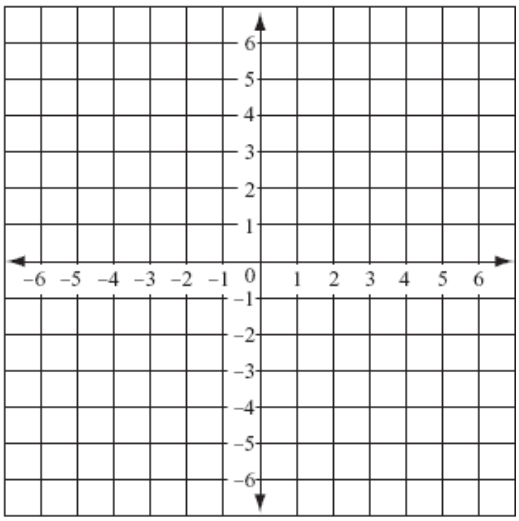
4. Vertex_____

Axis of Symmetry: _____

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



6. $2(x+2)^2=y$



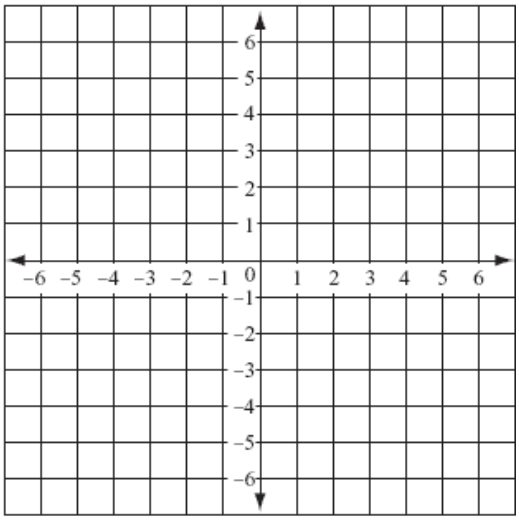
5. Vertex_____

Axis of Symmetry: _____

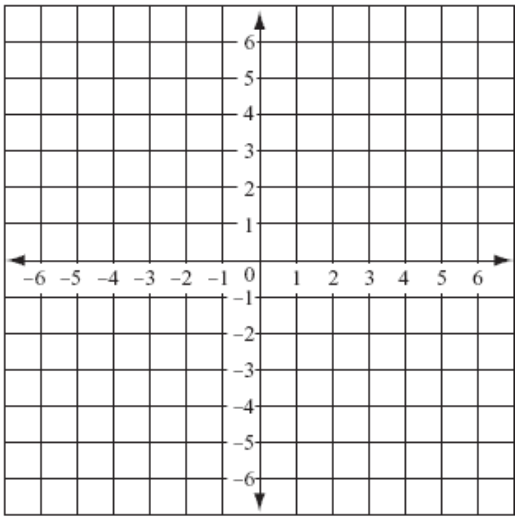
6. Vertex_____

Axis of Symmetry: _____

7. $x^2+6x+8=f(x)$



8. $x^2-5x+6=f(x)$



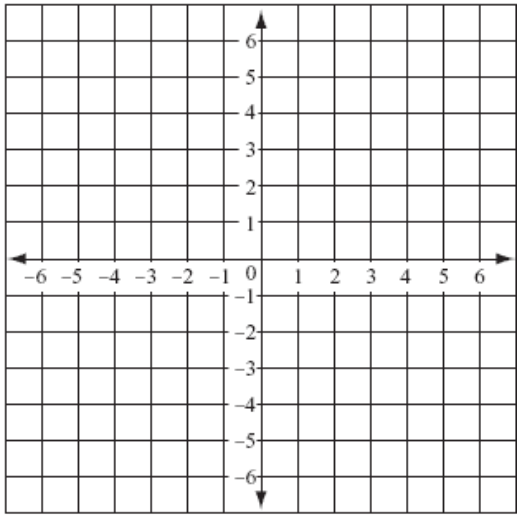
7. Vertex_____

Axis of Symmetry: _____

8. Vertex_____

Axis of Symmetry: _____

9. $y = -6x^2 + 18x + 5$



9. Vertex_____

Axis of Symmetry: _____

*10._____

BONUS

Simplify using properties of exponents

*10. $\left(6x^{\frac{1}{2}}y\right)^2 \cdot x^{-3}y^{\frac{1}{4}}$

*11. $\left(125^{\frac{1}{3}} \cdot y^{\frac{1}{3}}x^2\right)^2$

*11._____