

Graphing Quadratics Review

Date _____ Period _____

Identify the vertex of each.

1) $y = 3x^2 - 5$

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

Simplify.

3) $yx^2 \cdot 3x^4y^4$

Find each product.

4) $(n + 4)(2n + 5)$

5) $(4x - 3)(7x + 1)$

Factor each completely.

6) $r^3 - 15r^2 + 54r$

7) $5r^3 - 15r^2$

Solve each equation by factoring.

8) $k^2 + 40 = 13k$

9) $x^2 + 5x = 6$

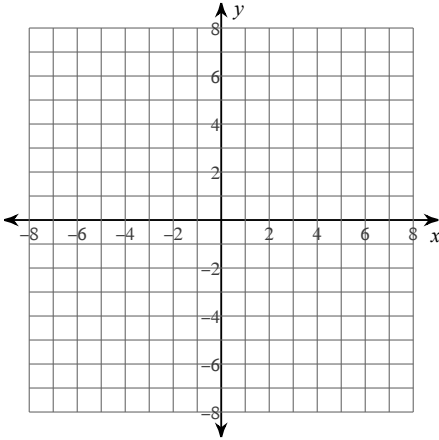
Solve each equation with the quadratic formula.

10) $5a^2 + 7a - 108 = 0$

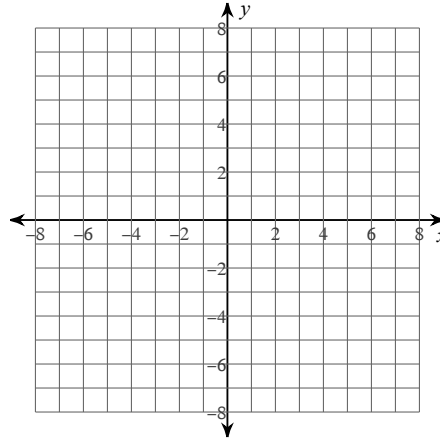
11) $6n^2 - n - 100 = 0$

Graph each equation.

12) $y = 2x^2$

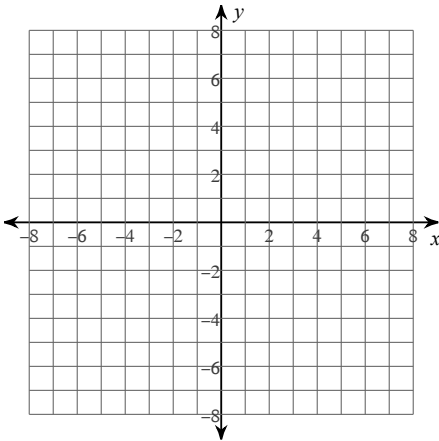


13) $y = -x^2$

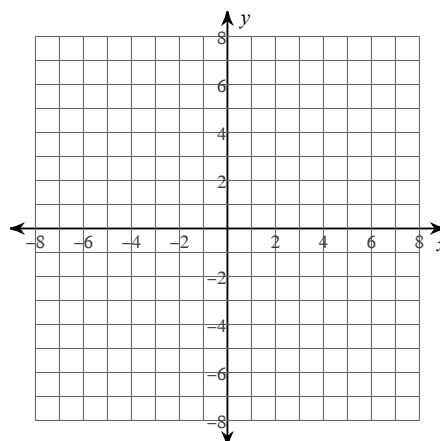


Identify the vertex and axis of symmetry of each. Then sketch the graph.

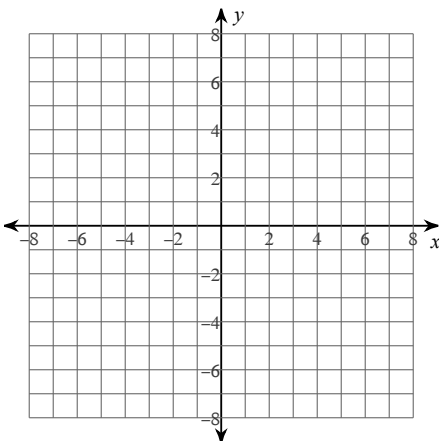
14) $y = -2x^2 - 1$



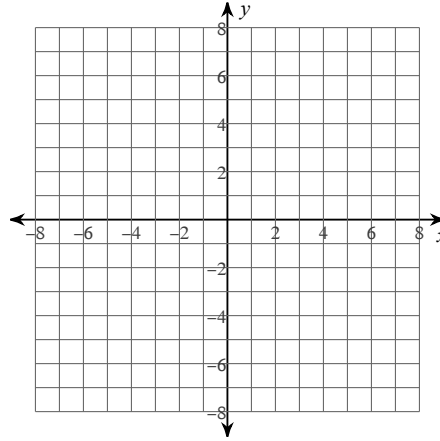
15) $y = -(x - 3)^2 - 1$



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



17) $y = 3x^2 + 12x + 6$



On your own paper, write the definitions for the following vocabulary:

- 18) GCF, Factor (noun), Factor (verb), Coefficient, Quadratic, Degree, Trinomial, Binomial, Monomial, Polynomial, Zeros, Parabola, i.