ALGEBRA 1 FINAL NAME:_____

For #1-4, simplify each of the following completely. Show all work! Circle your final answer.

1. $\sqrt{-\frac{4}{5}}$

2. $(5-3i)-(6+2i)$

3. $\frac{3-4i}{1-2i}$

4. $2i^{31}-i^{26}$

For #5-6, factor completely.

5. $8x^3-18x$

6. $27x^2+18x+3$

For #7-9, solve each of the following with the indicated method. Simplify COMPLETELY.

7. $2x^2-6x+5=0$

(quadratic formula)

8. $2x^2+4x=15-3x$

(factoring)

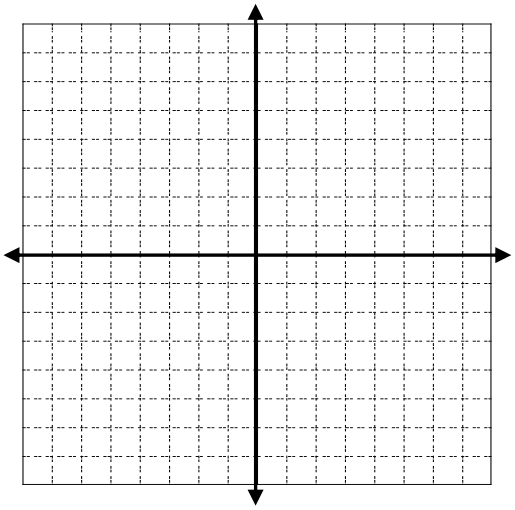
9. $x^2+4x=12$

(your choice)

For #10-11, find the information for each of the following quadratics. Then sketch the graph.

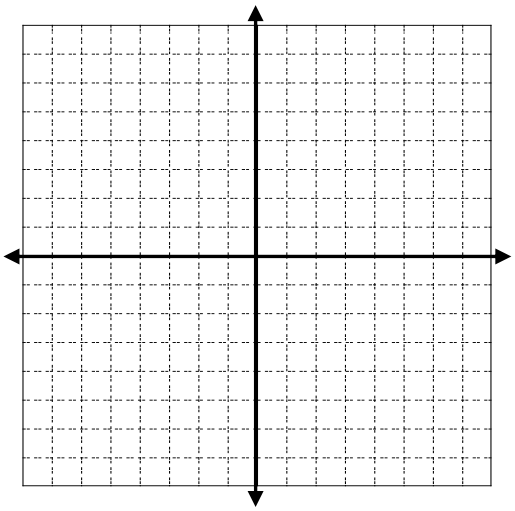
10. $y = -(x+3)^2 + 1$

Vertex		Axis of Symmetry	
Y-intercept		Reflection	
Other point		Reflection	

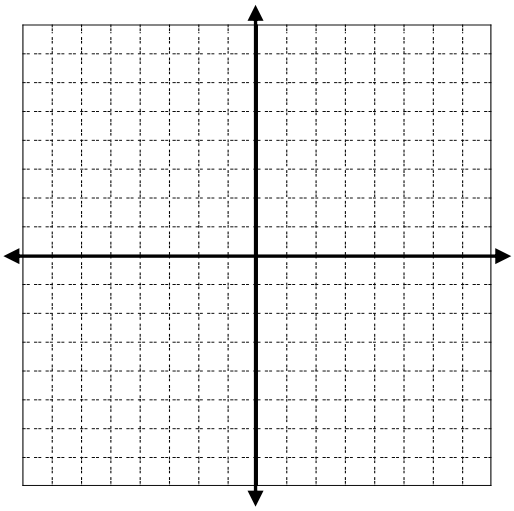


11. $y = 2x^2 - 4x + 3$

Vertex		Axis of Symmetry	
Y-intercept		Reflection	
Other point		Reflection	



12. $y = -\frac{1}{2}(x+2)(x-4)$



X-intercepts			
Vertex		Axis of Symmetry	
Y-intercept		Reflection	