

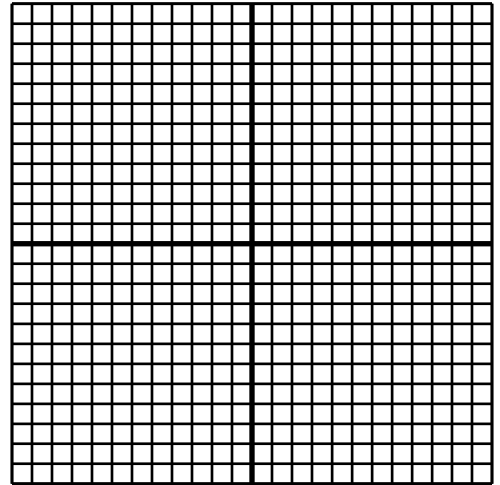
Finding the Vertex of Quadratic Functions by Completing the Square A

Name: _____

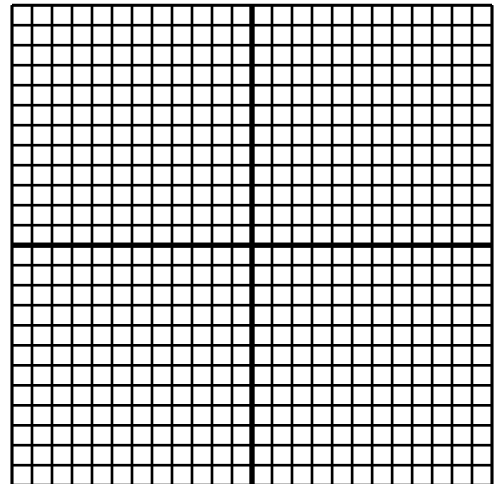
Period: _____

Directions: Find the vertex of each quadratic function using completing the square. Then graph the function.
Show all work.

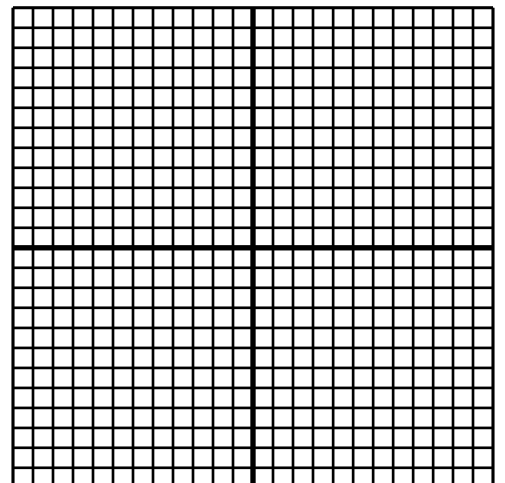
1. $f(x) = x^2 + 8x + 20$



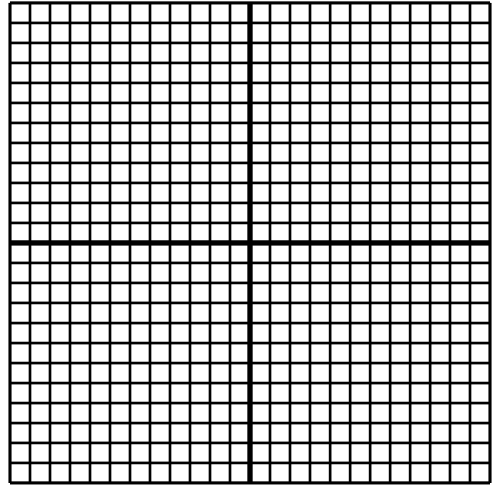
2. $f(x) = x^2 - 12x + 32$



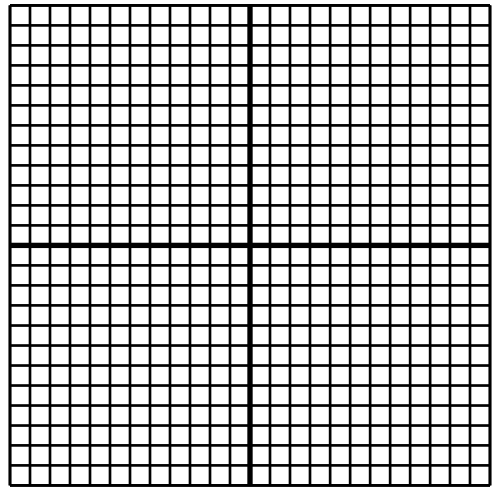
3. $f(x) = x^2 + 9x + 14$



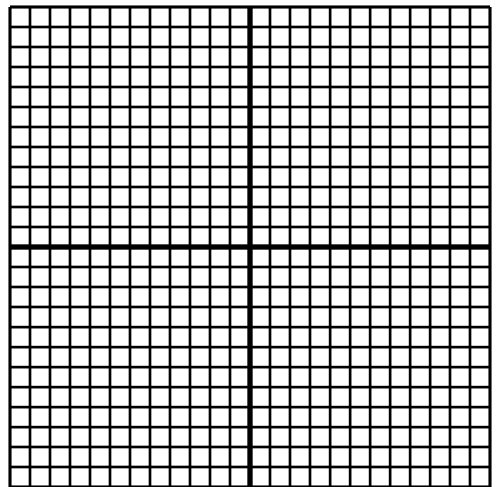
4. $f(x) = x^2 + 4x + 6$



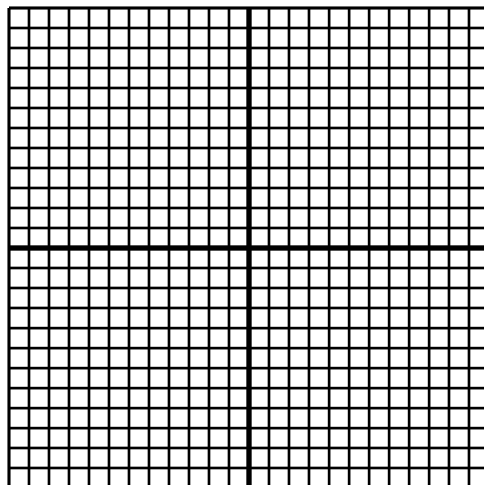
5. $f(x) = x^2 - 5x - 3$



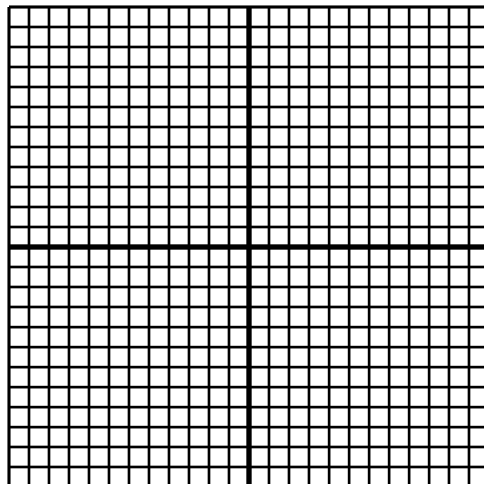
6. $f(x) = x^2 - 6x + 9$



7. $f(x) = x^2 + 3x + 2$



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



9. $f(x) = x^2 + 2x - 4$

