Functions Name_____

Find the vertex using -b/2a **and** by completing the square

Find the vertex using 2 different methods. Show all work. Graphs #'s 1, 3, and 5

1) $f(x) = x^2 - 8x + 17$

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

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

4) $f(x) = -3x^2 + 6x$

5) $f(x) = -2x^2 - 7x - 31$

6) $f(x) = -\frac{1}{2}x^2 - 4x - 6$

7) $f(x) = -2x^2 + 11x - 22$

8) $f(x) = x^2 - 8x + 20$

9) $f(x) = 3x^2 - 24x + 46$

10) $f(x) = x^2 + 2x + 2$

11) $f(x) = -\frac{1}{2}x^2 + 4x - 10$

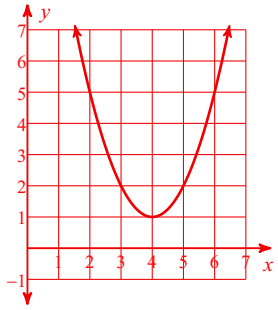
12) $f(x) = 2x^2 + 8x + 5$

Functions Name_____

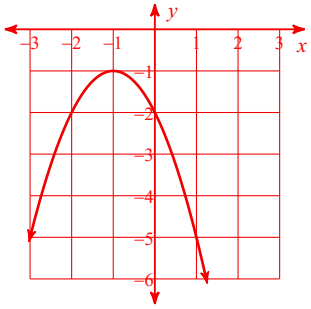
Finding vertex when given standard form

Name a, b, and c for each parabola. Then find the vertex.Show all work.

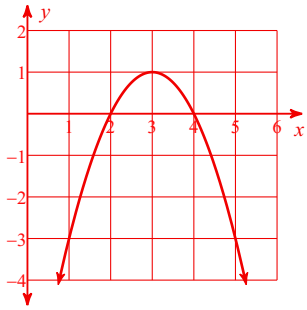
1) $f(x) = x^2 - 8x + 17$



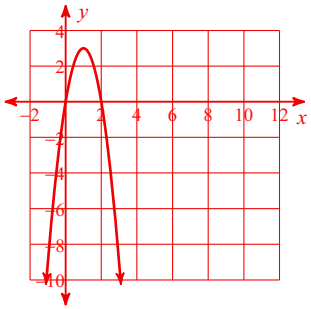
2) $f(x) = -x^2 - 2x - 2$



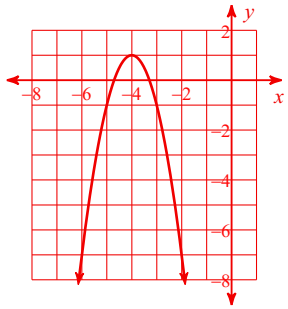
3) $f(x) = -x^2 + 6x - 8$



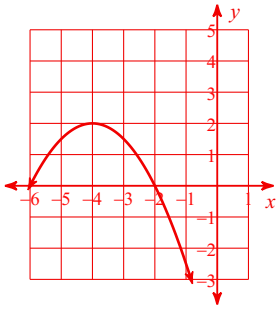
4) $f(x) = -3x^2 + 6x$



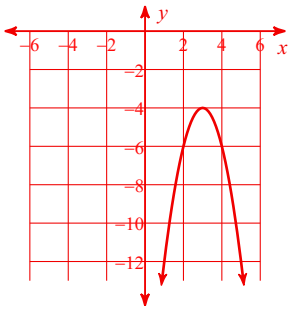
5) $f(x) = -2x^2 - 16x - 31$



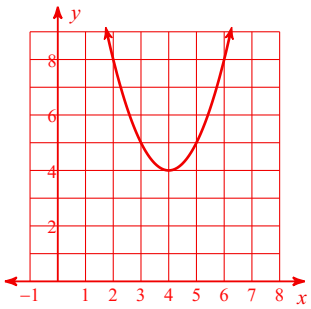
6) $f(x) = -\frac{1}{2}x^2 - 4x - 6$



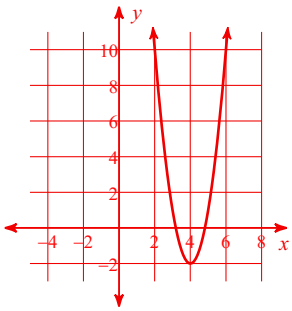
7) $f(x) = -2x^2 + 12x - 22$



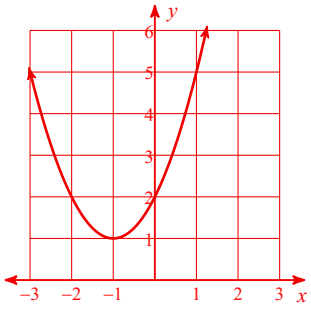
8) $f(x) = x^2 - 8x + 20$



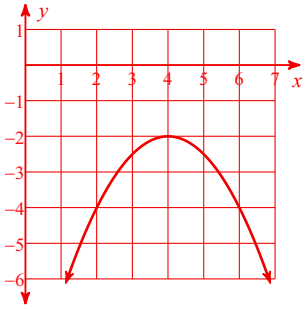
9) $f(x) = 3x^2 - 24x + 46$



10) $f(x) = x^2 + 2x + 2$



11) $f(x) = -\frac{1}{2}x^2 + 4x - 10$



12) $f(x) = 2x^2 + 8x + 5$