Practice 18.1

Name_____

Find the vertex of the parabola.
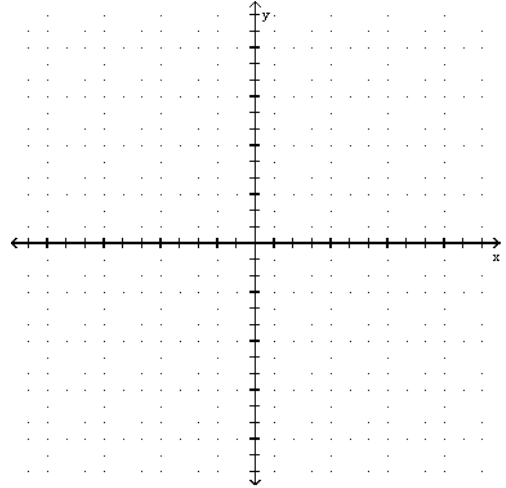
    1) $f(x) = 3x^2 - 2$

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

    3) $f(x) = \frac{1}{3}x^2 - \frac{2}{3}x - \frac{11}{3}$
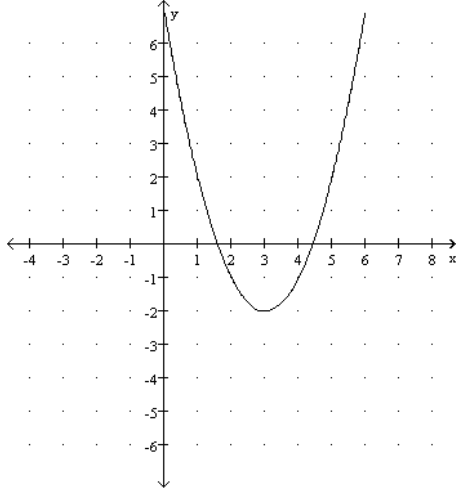
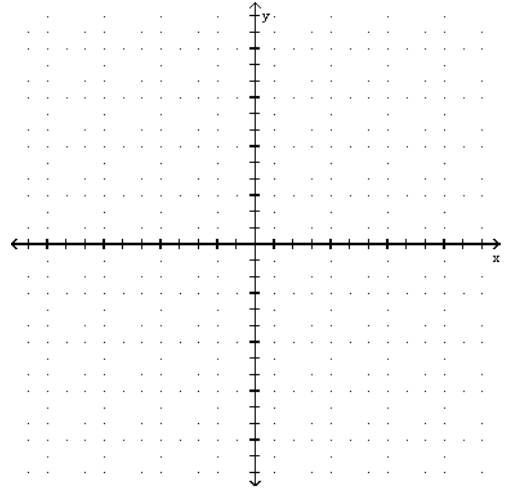Use the graph of f to evaluate each expression.

    4) $f(4), f(1)$

Find the minimum y-value on the graph of $y = f(x)$.

    5) $f(x) = x^2 - 12x$

Find the maximum y-value on the graph of $y = f(x)$.

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

Graph.

    7) $f(x) = x^2 + 2x - 1$

    8) $f(x) = 3x^2 + 2x - 2$
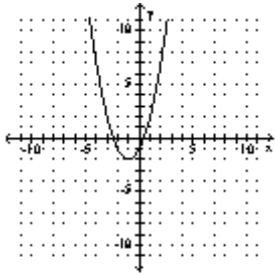
1) (0, -2)

2) $\left(\dfrac{5}{2}, \dfrac{25}{4} \right)$

3) (1, -4)

4) -1, 2

5) -36

6) 4

7)

8)