6.

Solution

To find the vertex, we look at the coefficients in the function $x(e) = ae^2 + be + c$
in this equation, $a = 1$ and $b = 2$
The first coordinate of the vertex has the formula: $\frac{-b}{2a}$ now, plugging into formula to get:

$\frac{-b}{2a} = -\frac{2}{2(1)} = -1$

The second coordinate of the vertex is $x(-1) = 1(-1)^2 + 2(-1) - 3$
$= -4$
Therefore, the vertex of the graph of f is $(-1, -4)$