

Correct. For $f(x) = ax^2 + bx + c$, the vertex is: $\left(-\frac{b}{2a}, f\left(-\frac{b}{2a}\right)\right)$

First find the x -coordinate by using the values $a = -1$ and $b = 6$:

$$-\frac{b}{2a} = -\frac{6}{2(-1)} = \frac{-6}{-2} = 3$$

This tells you that the y -coordinate of the vertex is $f(3)$. Now:

$$f(3) = -3^2 + 6(3) - 7 = -9 + 18 - 7 = 2$$