

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  $a = 2$  and  $b = -8$ :

$$-\frac{b}{2a} = -\frac{-8}{2(2)} = \frac{8}{4} = 2$$

This tells you that the  $y$ -coordinate of the vertex is  $f(2)$ . Now:

$$f(2) = 2(2)^2 - 8(2) + 3 = 2(4) - 16 + 3 = 8 - 16 + 3 = -8 + 3 = -5$$