3.10.16

plane, the point (3,6) lies on the
e function $x^2 - bx + 12$.

e value of b?

(x, y)

$6 = 3(3)^2 - b(3) + 12$

$6 = 3(9) - 3b + 12$

$6 = 27 - 3b + 12$

$6 = 39 - 3b$

$-39 \quad -39$

$\frac{-33}{-3} = \frac{-3b}{-3}$

$11 = b$

(h, k)

$y = a(x - 2)(x + 4)$

In the quadratic equation above, a is a nonzero constant. The graph of the equatic in the xy-plane is a parabola with vertex (c,d). Which of the following is equal to d

A) $-9a$
B) $-8a$
C) $-5a$
D) $-2a$

$(ax - 2a)(x + 4)$

	ax	$-2a$
x	ax^2	$-2ax$
4	$4ax$	$-8a$

$ax^2 + 2ax - 8a$

$a \quad b \quad c$

$h = \frac{-b}{2a} \quad h = \frac{-2a}{2a} \quad h = -1$

$k = a(-1)^2 + 2a(-1) - 8a$

$k = a - 2a - 8a$

$k = -9a$