

DIGITAL



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3 Find the vertex and the axis of symmetry and

then, graph $y = (x + 3)^2$.





4 Find the vertex of $y = x^2 - 8x - 3.2$.

To write $y = ax^2 + bx + c$ in the form $y = a(x - h)^2 + k$, complete the square.

Example:
$$y = x^2 + 6x + 10$$

 $y - 10 = x^2 + 6x + 10 - 10$
 $y - 10 = x^2 + 6x$
 $\frac{1}{2}(6) = 3$
 $3^2 = 9$
 $y - 10 + 9 = x^2 + 6x + 9$
 $y - 1 = (x + 3)^2$
 $y - 1 + 1 = (x + 3)^2 + 1$
 $y = (x + 3)^2 + 1$

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Module 14 Lesson 2

Guided Notes