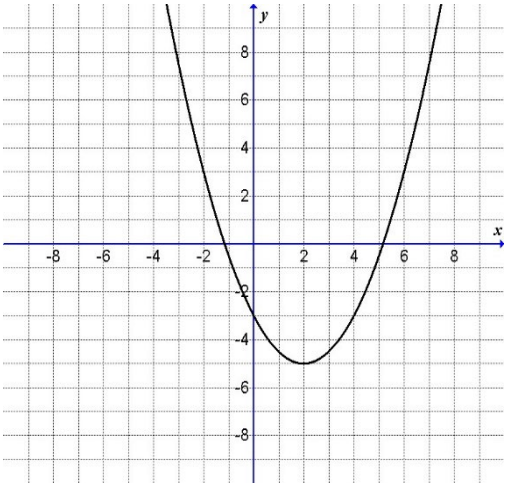
GRAPH USING KEY POINTS

Key points on a Parabola:

Draw the **axis of symmetry** and state its equation	
Draw and state the **zeroes** (x-intercepts)	
Draw and state the **y-intercept**	
State the **direction of opening** of the parabola	
Draw and state the **vertex** as an (x, y) point	

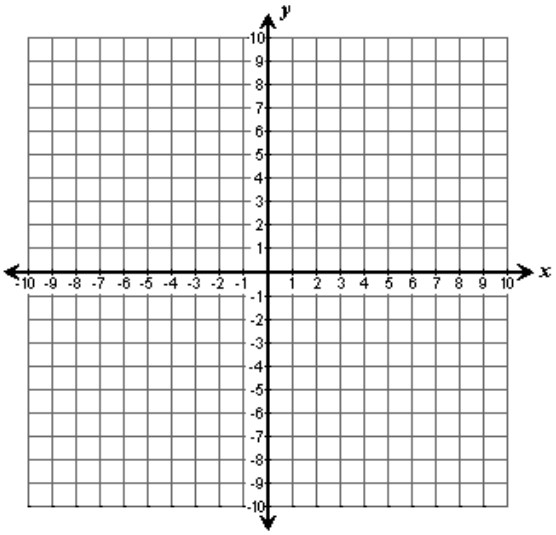


If we know the location of the axis of symmetry, then we can find the coordinates of the vertex.

EX: Given the following information, determine the location of the vertex and graph the parabola.

$y = x^2 + 6x + 8$

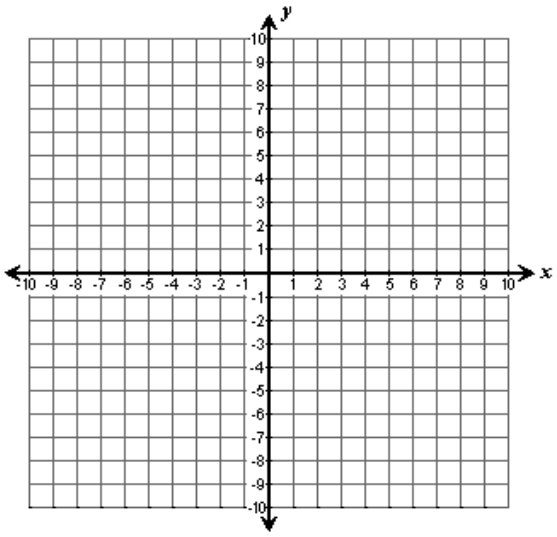
y-int	8
x-int: zeros	(-2,0) (-4,0)
A of S	X = -3
Vertex	



EX: Complete each of the following questions by determining the key features required to complete a graph of the quadratic.

$y = -x^2 + 4x - 3$

y-int	
x-int: zeros	
A of S	
Vertex	



$y = 2x^2 - 4x - 6$

y-int	
x-int: zeros	
A of S	
Vertex