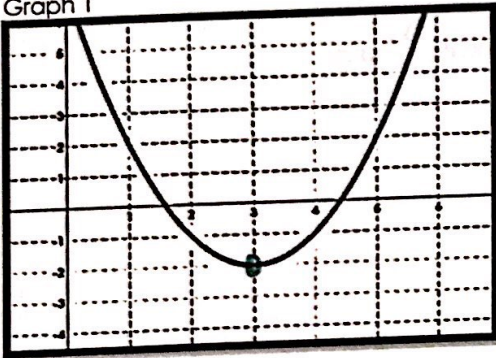


Practice Assignment

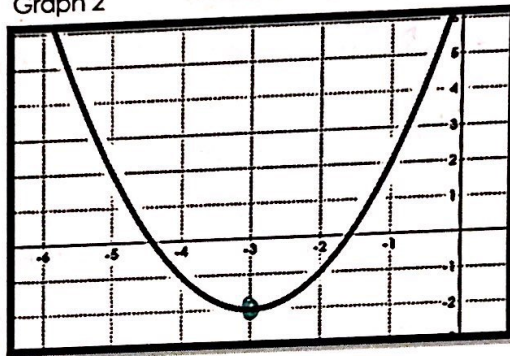
1. For each equation, name the vertex and transformations and then match the graphs below.

Equations:	A. $y = (x + 3)^2 - 2$	B. $y = (x - 3)^2 - 2$	C. $y = (x - 3)^2 + 2$	D. $y = (x + 3)^2 + 2$
Vertex:	<u>$(-3, -2)$</u>	<u>$(3, -2)$</u>	<u>$(3, 2)$</u>	<u>$(-3, 2)$</u>
Transformations:	<u>left 3, down 2</u>	<u>right 3, down 2</u>	<u>right 3, up 2</u>	<u>left 3, up 2</u>
Graphs:	<u>Graph 2</u>	<u>Graph 1</u>	<u>Graph 4</u>	<u>Graph 3</u>

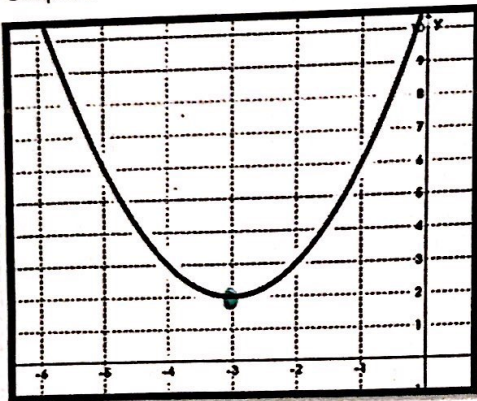
Graph 1



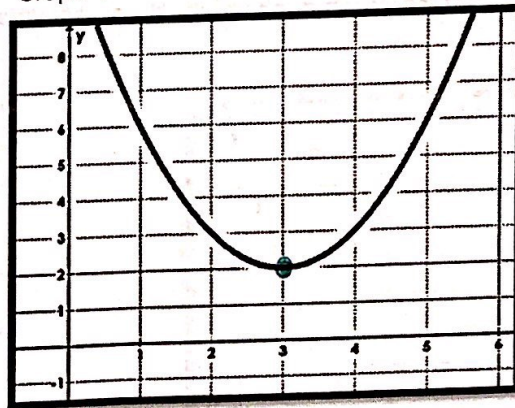
Graph 2



Graph 3



Graph 4



2. Given each equation, name the vertex and describe the transformations.

a. $y = (x - 5)^2 + 4$

$(5, 4)$
right 5, up 4

b. $y = (x + 1)^2 - 6$

$(-1, -6)$
left 1, down 6

c. $y = x^2 - 7$

$(0, -7)$
down 7

d. $y = (x + 2)^2$

$(-2, 0)$
left 2

3. Create an equation that represents each transformation.

a. Shifted down k units and left h units
 $(-4, -6)$

$$y = (x + 4)^2 - 6$$

b. Shifted right h units and up k units
 $(8, 5)$

$$y = (x - 8)^2 + 5$$

c. Shifted left h units
 $(-1, 0)$

$$y = (x + 1)^2$$

d. Shifted down k units
 $(0, -10)$

$$y = x^2 - 10$$

4. Name the vertex from the given transformations.

a. Shifted left h units and down k units

$$(-3, -4)$$

b. Shifted up k units and right h units

$$(2, 9)$$

c. Shifted up k units

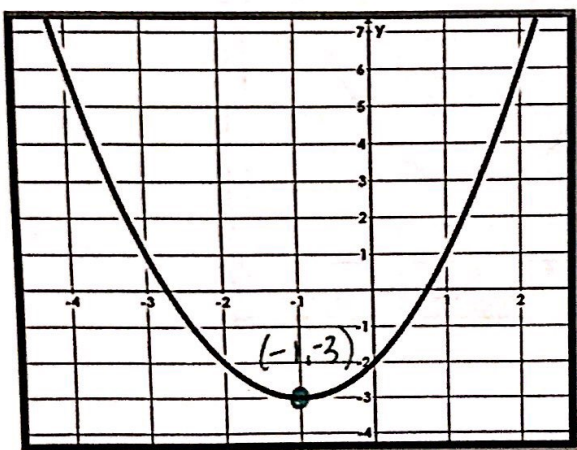
$$(0, 7)$$

d. Shifted right h units

$$(4, 0)$$

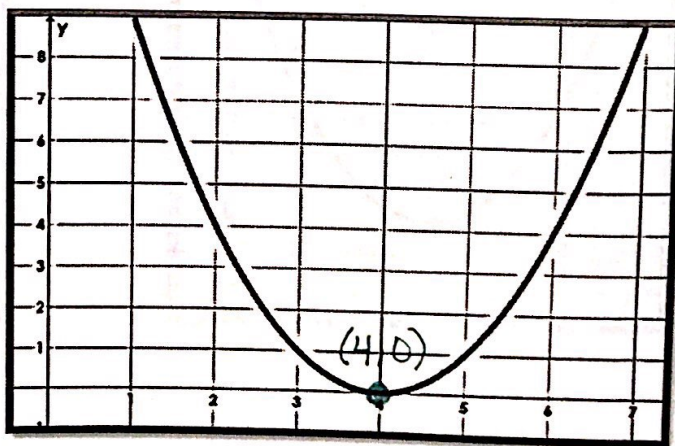
5. Create an equation that represents each graph. Name the vertex.

a.



$$y = (x + 1)^2 - 3$$

b.



$$y = (x - 4)^2$$