

## 10.1 Worksheet

Date \_\_\_\_\_ Period \_\_\_\_\_

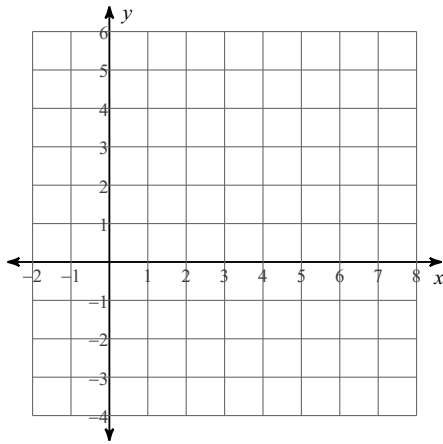
1) How would the graph of the function

$y = x^2 + 6$  be affected if the function were changed to  $y = x^2 + 2$  ?

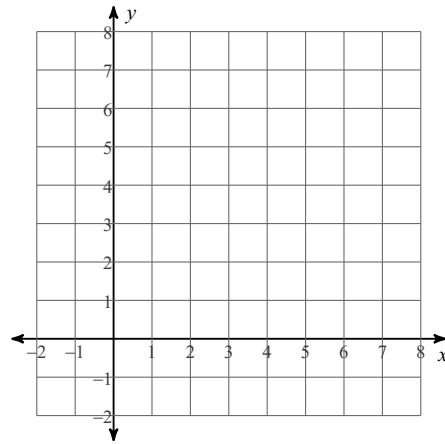
- A) shifted 2 units up
- B) shifted 4 units to the left
- C) shifted 4 units up
- D) shifted 4 units down

**Sketch the graph of each function. Your graph must have at least 5 POINTS. State the point of the vertex as an ordered pair (x,y).**

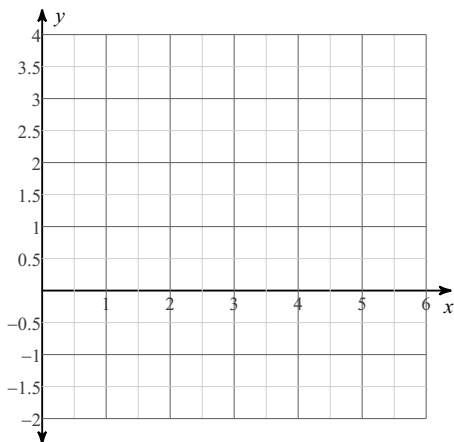
2)  $y = 2(x - 3)^2 - 3$



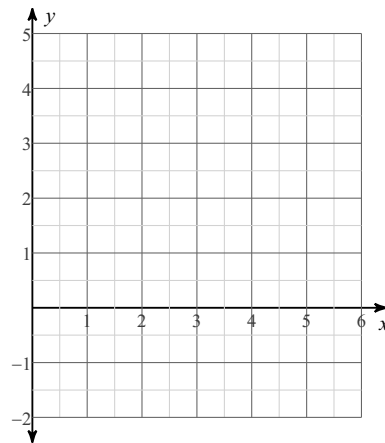
3)  $y = 2(x - 1)^2 - 1$



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



5)  $y = -\left(x - \frac{7}{2}\right)^2 + \frac{13}{4}$



**Solve each equation.**

6)  $(r - 5)(8r + 1) = 0$

7)  $(n + 8)(n + 2) = 0$

**Factor each completely.**

8)  $m^2 + 6m - 40$

9)  $m^2 + 2m - 24$