

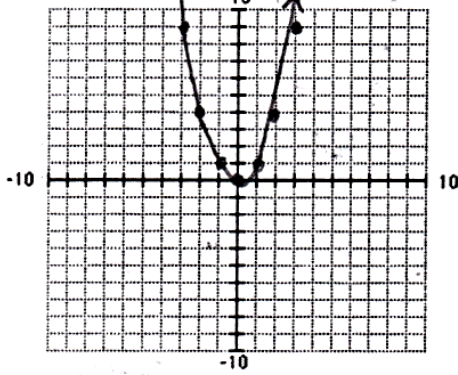
# Day 04 HW Graphing Quadratics in Vertex Form

Name Master E  
 Date \_\_\_\_\_ Block E

Watch out for the ☺ problems!

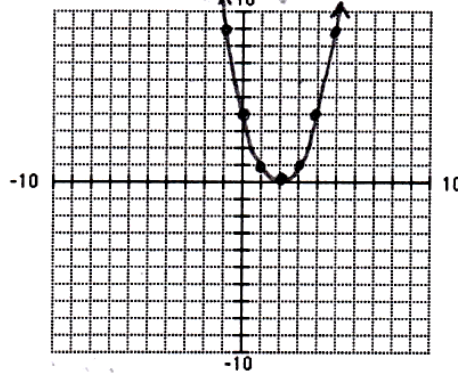
Graph each function without a calculator. State the vertex and its domain and range in interval notation.

1.  $y = x^2$   $V(0,0)$



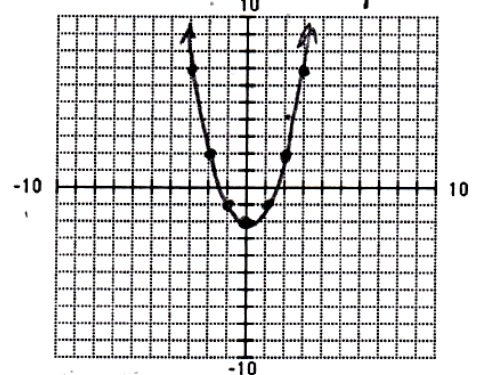
D:  $(-\infty, \infty)$  R:  $[0, \infty)$

2.  $y = (x-2)^2$   $V(2,0)$



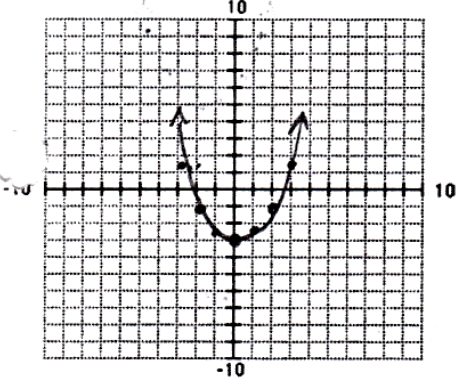
D:  $(-\infty, \infty)$  R:  $[0, \infty)$

3.  $y = x^2 - 2$   $V(0,-2)$



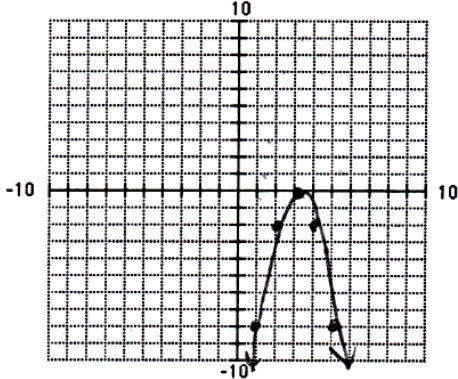
D:  $(-\infty, \infty)$  R:  $[-2, \infty)$

4.  $y = \frac{1}{2}x^2 - 3$   $V(0,-3)$



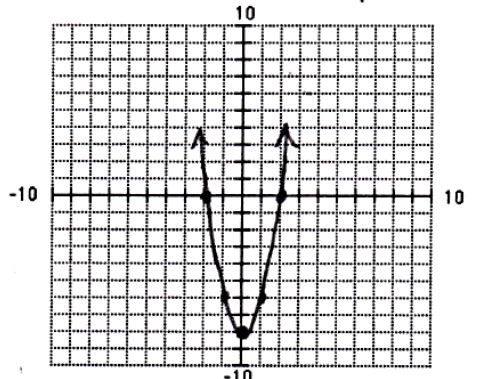
D:  $(-\infty, \infty)$  R:  $[-3, \infty)$

5.  $y = -2(x-3)^2$   $V(3,0)$



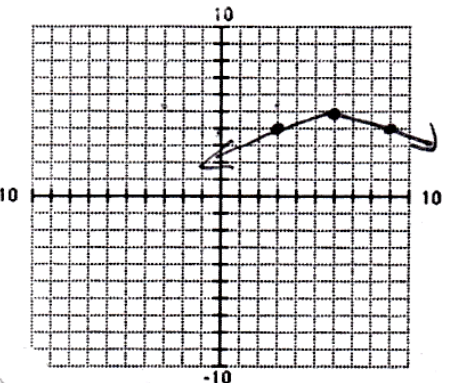
D:  $(-\infty, \infty)$  R:  $(-\infty, 0]$

6.  $y = 2x^2 - 8$   $V(0,-8)$



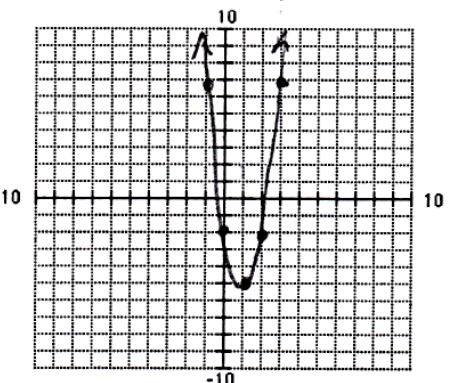
D:  $(-\infty, \infty)$  R:  $[-8, \infty)$

☺ 7.  $y = -\frac{1}{3}|x-6| + 5$   $V(6,5)$



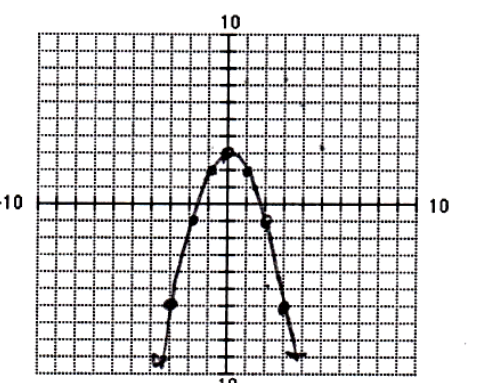
D:  $(-\infty, \infty)$  R:  $(-\infty, 5]$

8.  $y = 3(x-1)^2 - 5$   $V(1,-5)$



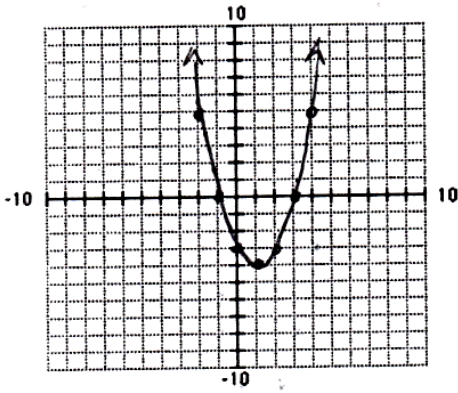
D:  $(-\infty, \infty)$  R:  $[-5, \infty)$

9.  $y = -x^2 + 3$   $V(0,3)$



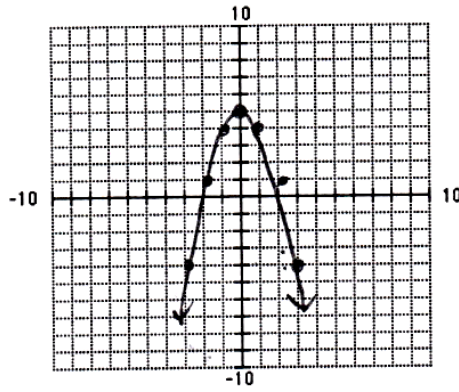
D:  $(-\infty, \infty)$  R:  $(-\infty, 3]$

10.  $y = (x-1)^2 - 4$   $V(1, -4)$



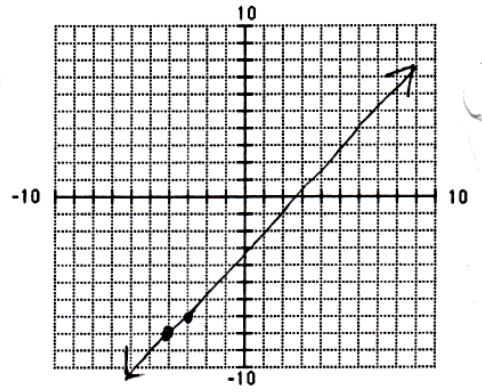
D:  $(-\infty, \infty)$  R:  $[-4, \infty)$

11.  $y = -x^2 + 5$   $V(0, 5)$



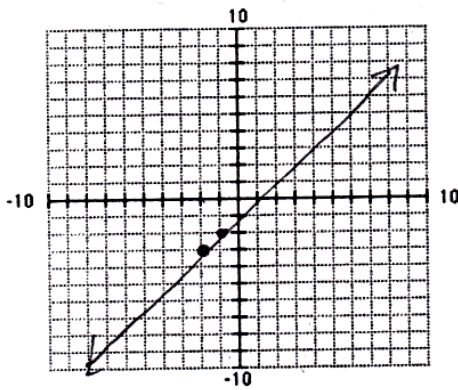
D:  $(-\infty, \infty)$  R:  $(-\infty, 5]$

12.  $y = (x+4) - 8$   $V(-4, -8)$



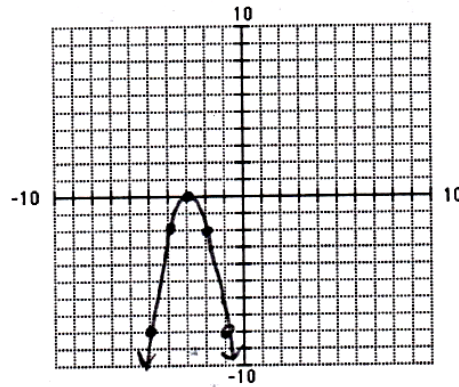
D:  $(-\infty, \infty)$  R:  $(-\infty, \infty)$

13.  $y = (x+2) - 3$   $V(-2, -3)$



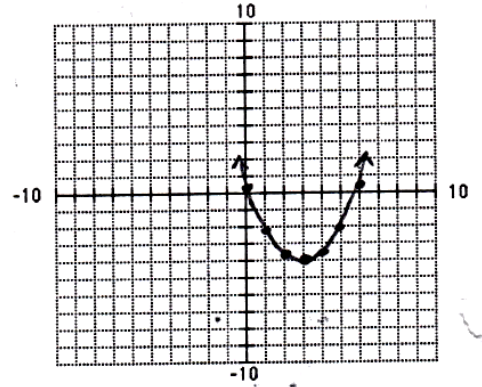
D:  $(-\infty, \infty)$  R:  $(-\infty, \infty)$

14.  $y = -2(x+3)^2$   $V(-3, 0)$



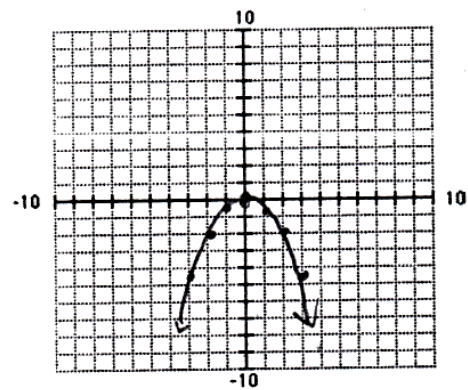
D:  $(-\infty, \infty)$  R:  $(-\infty, 0]$

15.  $y = \frac{1}{2}(x-3)^2 - 4$   $V(3, -4)$



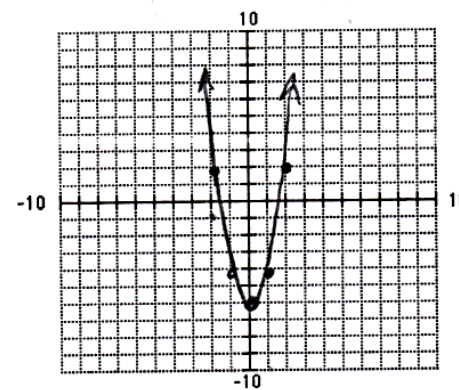
D:  $(-\infty, \infty)$  R:  $[-4, \infty)$

16.  $y = -\frac{1}{2}x^2$   $V(0, 0)$



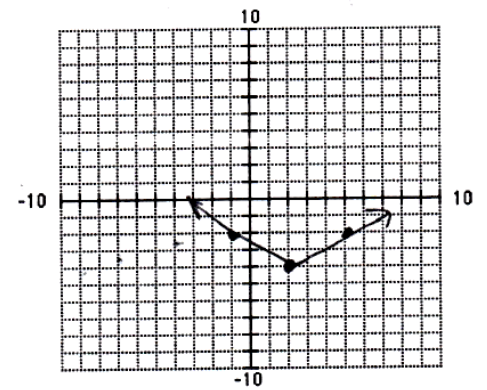
D:  $(-\infty, \infty)$  R:  $(-\infty, 0]$

17.  $y = 2x^2 - 6$   $V(0, -6)$



D:  $(-\infty, \infty)$  R:  $[-6, \infty)$

18.  $y = \frac{2}{3}|x-2| - 4$   $V(2, -4)$



D:  $(-\infty, \infty)$  R:  $[-4, \infty)$