

Name: Key

9.1 Graphing using Vertex Form

For problems 1-3, identify the a) whether the parabola opens up or down, b) vertex and c) axis of symmetry.

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

up (2, 1) x = 2

2) $y = (x + 16)^2 + 20$

up (-16, 20) x = -16

3) $y = -2(x + 3)^2 - 6$

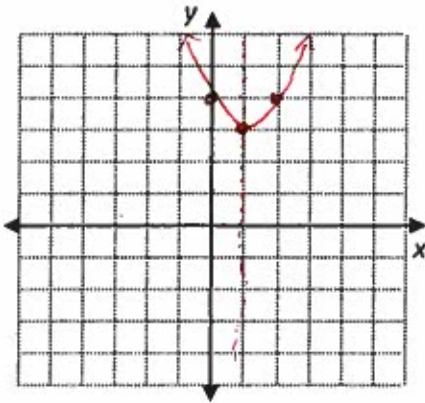
down (-3, -6)
x = -3

Graph the quadratic functions below using vertex form.

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

v: (1, 3)

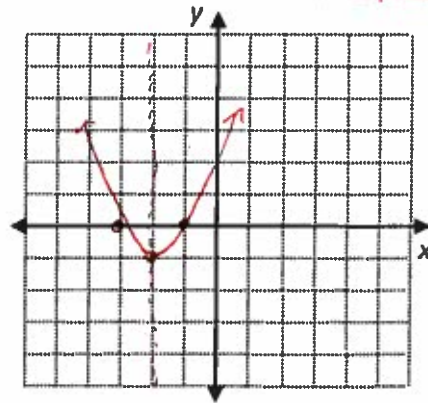
x	y
0	4
2	4



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

v: (-2, -1)

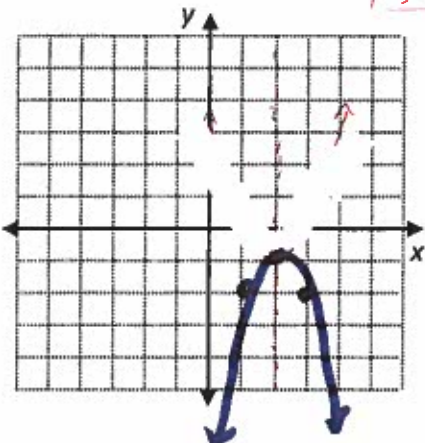
x	y
-3	0
-1	0



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

v: (2, -1)

x	y
1	-2
3	-2



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

v: (1, -4)

x	y
0	-7
2	-7

