Name: Key

9.1 Graphing ALL forms of quadratics

Given the equations below, identify **a)** which form it is in, **b)** whether it opens up or down **c)** the Axis of Symmetry, **d)** the vertex.

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

a) vertex
b) up
c) $x = -6$
d) $(-6, -1)$

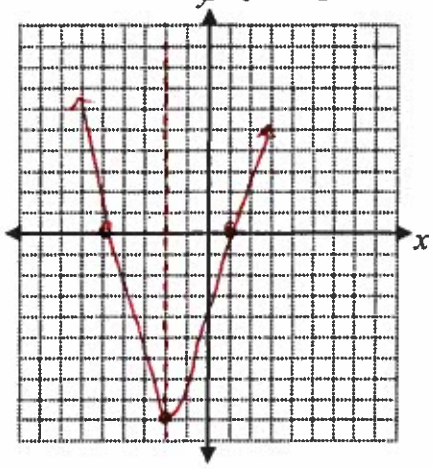
2. $y = -x^2 + 5$

a) Standard
b) down
c) $x = 0$
d) $(0, 5)$

3. $h(x) = (x + 3)(x - 7)$

a) intercept
b) up
c) $x = 2$
d) $(2, -25)$

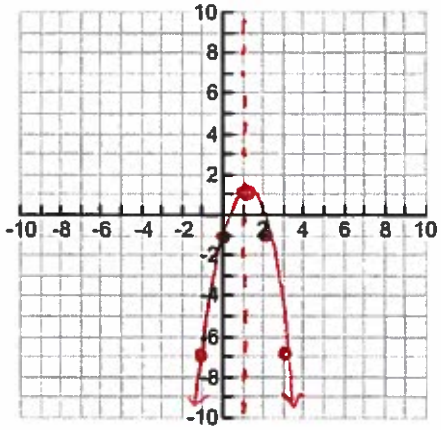
4. Sketch the graph of $g(x) = x^2 + 4x - 5$ $(x+5)(x-1)$



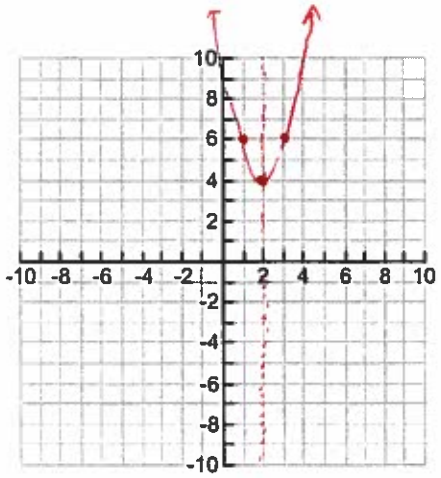
x	y

5. Sketch the graph of: $y = -2x^2 + 4x - 1$ $x = \frac{-4}{-4} = 1$ $(1,1)$

x	y
0	-1
2	-1
-1	-7
3	-7

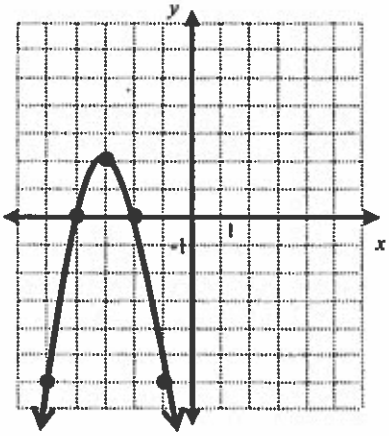


6. Sketch the graph of: $y = 2(x - 2)^2 + 4$ V: (2,4)



x	1	3	0	4		
y	6	6	12	12		

7. What is the equation of the graph below?



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

b) $y = -2x^2 - 12x - 16$

c) $y = -2(x + 4)(x + 2)$

d) All (answers a-c)

e) none of these