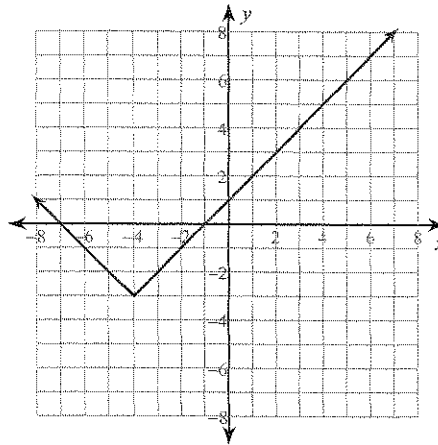


Identify, Graph, and Transform Quadratics Review

Determine if each problem is a quadratic. If not, identify which type of function it represents.

1) $3x^2 + 4x = 5 + y$

2)



3) $4x - 6y = 12$

4) $f(x) = x^3 + 2x^2 - x + 7$

5)

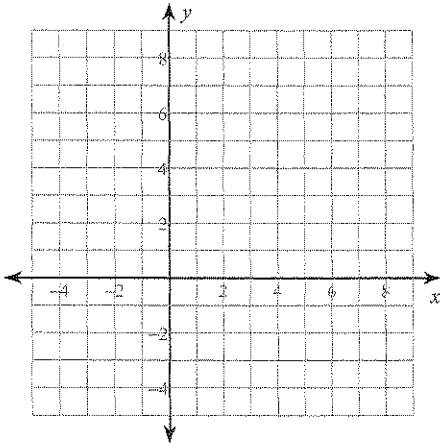
x	y
-2	5
-1	9
0	13
1	17
2	21

6)

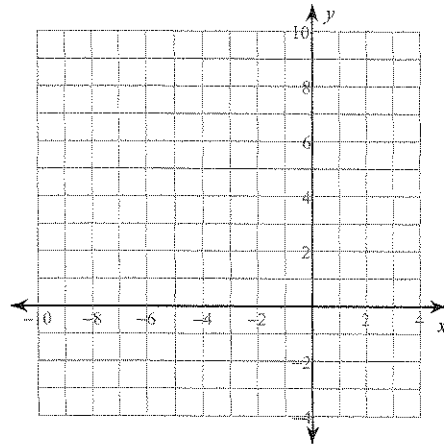
x	y
-2	-8
-1	-2
0	0
1	-2
2	-8

For each function, a) determine if the graph opens up or down, b) find the vertex, c) find the y-intercept, d) find the minimum or maximum value, e) find the domain and range and f) graph the function.

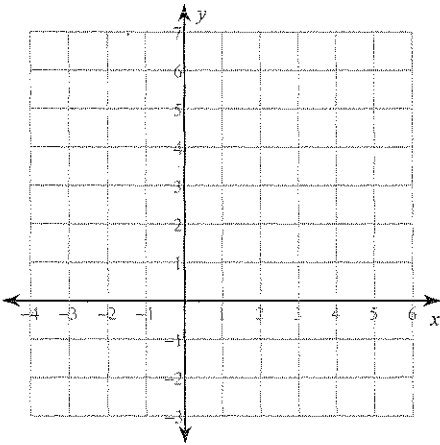
7) $y = 3x^2 - 6x - 1$



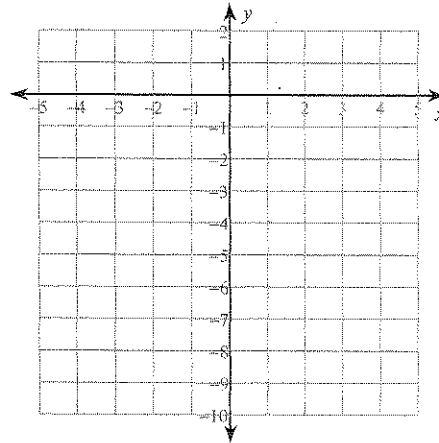
8) $y = 3x^2 + 12x + 9$



9) $f(x) = 2x^2 - 4x$



10) $f(x) = -x^2 - 5$



Describe each transformation.

11) $y = 3(x - 5)^2 + 2$

12) $f(x) = -\frac{1}{2}(x + 6)^2 - 4$

13) $f(x) = (x - 1)^2$

14) $f(x) = -4(x + 2)^2 - 8$

Write an equation to represent the transformation.

15) opening down, narrow, vertex at (4, 7)

16) opening up, normal, shifted left 2 and down 9

17) opening up, compressed by a factor of $\frac{1}{3}$,
shifted right 3 and up 6

18) opening down, stretched by a factor of 8,
vertex at (0, -1)