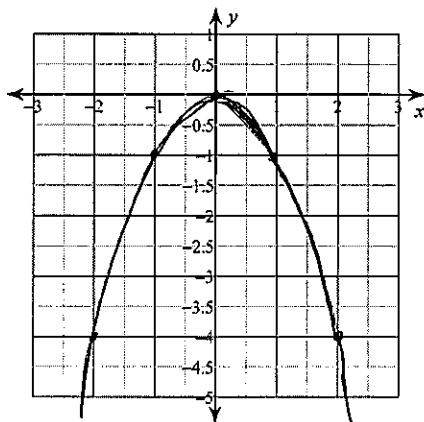


Homework 37.3

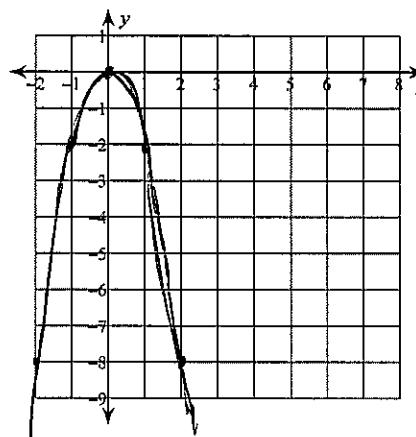
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Sketch the graph of each function.

1) $y = -x^2$

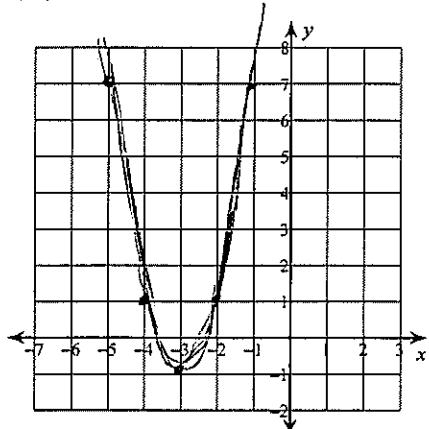


2) $y = -2x^2$



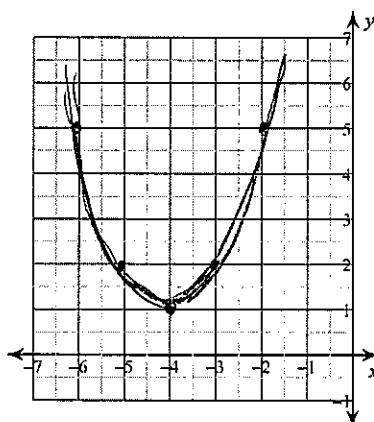
X	Y
-2	-8
-1	-2
0	0
1	-2
2	-8

3) $y = 2x^2 + 12x + 17$



X	Y
-5	7
-4	1
-3	-1
-2	1
-1	7

4) $y = x^2 + 8x + 17$



X	Y
-6	5
-5	2
-4	1
-3	2
-2	5

$a = 2$

$b = 12$

$c = 17$

$x = \frac{-12}{2(2)}$

$x = -3$

$a = 1$

$b = 8$

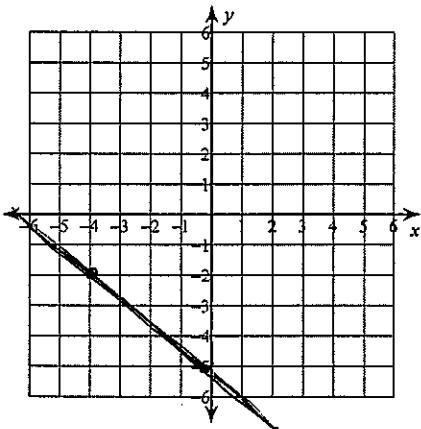
$c = 17$

$x = \frac{-8}{2(1)}$

$= -4$

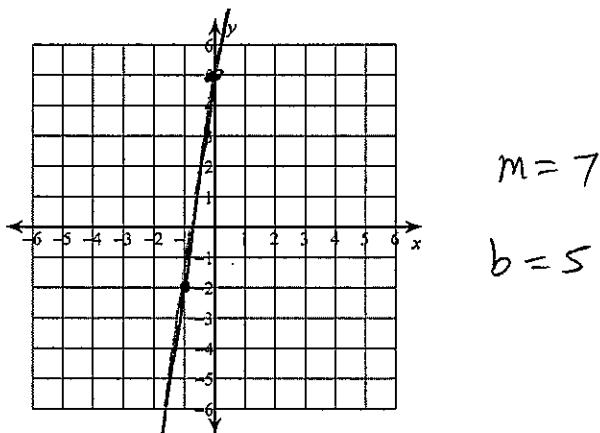
Sketch the graph of each line.

5) $y = -\frac{3}{4}x - 5$



$$m = -\frac{3}{4}$$
$$b = -5$$

6) $y = 7x + 5$



$$m = 7$$
$$b = 5$$

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Find all zeros.

7. $y = x^2 + 6x + 5$

$$\bullet = (x+1)(x+5)$$
$$\begin{array}{r} 5 \\ \hline +1 +5 \end{array}$$

$$\begin{array}{l} x+1=0 \\ -1 -1 \\ \hline x=-1 \end{array} \quad \begin{array}{l} x+5=0 \\ -5 -5 \\ \hline x=-5 \end{array}$$

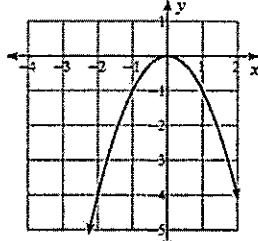
8. $y = x^2 + 3x + 2$

$$\bullet = (x+1)(x+2)$$
$$\begin{array}{r} 2 \\ \hline +1 +2 \end{array}$$

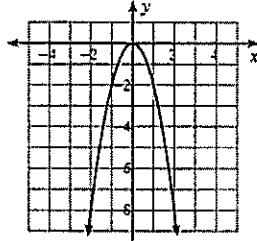
$$\begin{array}{l} x+1=0 \\ -1 -1 \\ \hline x=-1 \end{array} \quad \begin{array}{l} x+2=0 \\ -2 -2 \\ \hline x=-2 \end{array}$$

Answers to Homework 37.3

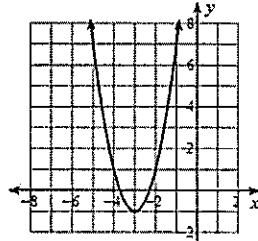
1)



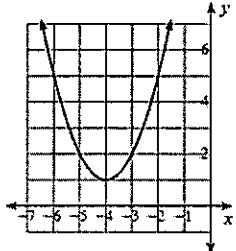
2)



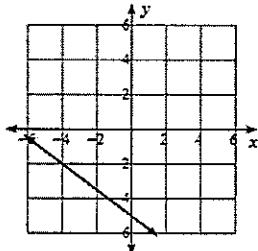
3)



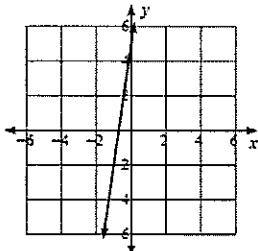
4)



5)



6)



7. $\{-1, -5\}$

8. $\{-1, -2\}$