

Answers to 5.6 Writing Equations from Graphs

1)

3) a. $y = -(x - 4)^2 + 4$
b. $y = -(x - 2)(x - 6)$
c. $y = -x^2 + 8x - 12$

5)

7) a. $y = -(x + 3)^2 - 2$
b. NA
c. $y = -x^2 - 6x - 11$

9)

11) a. $y = 2(x - 3)^2$
b. $y = 2(x - 3)^2$
c. $y = 2x^2 - 12x + 18$

13) $y = x^2 - 6$

15) a. None
b. $(0, -35)$
c. $x = 4$
d. $(4, -3)$
e. -3
f. Down
g. $-\infty < x < \infty$
h. $x \leq -3$
i. $x < 4$
j. $x > 4$
k. None
l. $-\infty < x < \infty$
m. As $x \rightarrow -\infty, y \rightarrow -\infty$
As $x \rightarrow \infty, y \rightarrow -\infty$