

TEKS 2A.8.D



LESSON

5-7

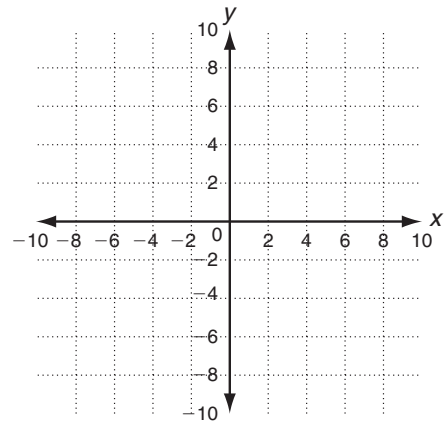
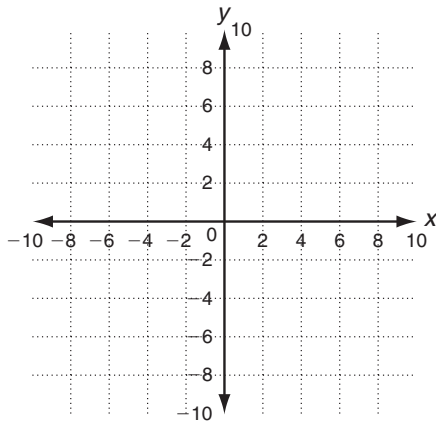
Practice B

Solving Quadratic Inequalities

Graph each inequality.

1. $y < x^2 - 2x + 6$

2. $y > 2x^2 - x - 7$



Solve each inequality by using tables or graphs.

3. $x^2 + 3x - 14 \leq 14$

4. $x^2 - 9x > -18$

Solve each inequality by using algebra.

5. $x^2 - x - 3 > x$

6. $x^2 + 6x + 3 < -2$

7. $3 \leq x^2 - 8x + 15$

8. $3x^2 + x + 8 \leq 12$

Solve.

9. An online music service that sells song downloads models its profit using the function $P(d) = -5d^2 + 450d - 1000$, where d is the number of downloads sold and P is the profit. How many downloads does it need to sell to make a profit of more than \$8000?

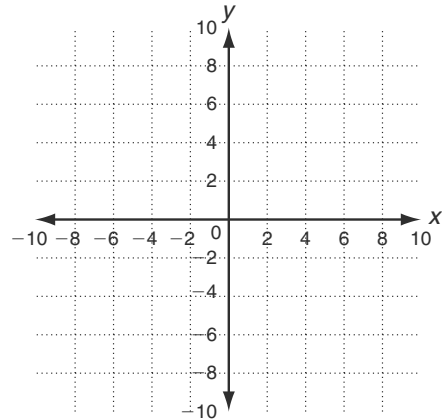
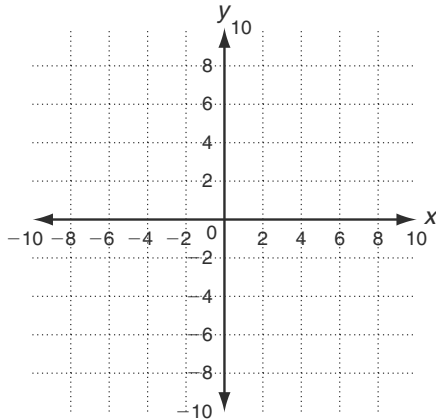
TEKS 2A.8.D

LESSON
5-7**Practice B****Solving Quadratic Inequalities**

Graph each inequality.

1. $y < x^2 - 2x + 6$

2. $y > 2x^2 - x - 7$



Solve each inequality by using tables or graphs.

3. $x^2 + 3x - 14 \leq 14$

$$\underline{-7 \leq x \leq 4}$$

4. $x^2 - 9x > -18$

$$\underline{x < 3 \text{ or } x > 6}$$

Solve each inequality by using algebra.

5. $x^2 - x - 3 > x$

$$\underline{x < -1 \text{ or } x > 3}$$

6. $x^2 + 6x + 3 < -2$

$$\underline{-5 < x < -1}$$

7. $3 \leq x^2 - 8x + 15$

$$\underline{x < 2 \text{ or } x > 6}$$

8. $3x^2 + x + 8 \leq 12$

$$\underline{-\frac{4}{3} < x < 1}$$

Solve.

9. An online music service that sells song downloads models its profit using the function $P(d) = -5d^2 + 450d - 1000$, where d is the number of downloads sold and P is the profit. How many downloads does it need to sell to make a profit of more than \$8000?

More than 30 but fewer than 60