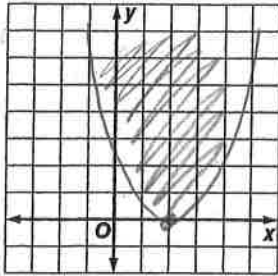


Skills Practice

Graphing and Solving Quadratic Inequalities

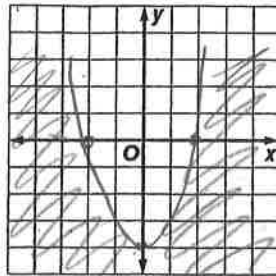
Graph each inequality. \hat{E} Solve

1. $y \geq x^2 - 4x + 4$



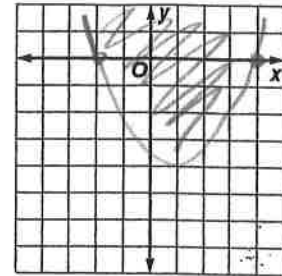
Solution: $x = 2$

2. $y \leq x^2 - 4$



$x \leq -2$ or $x \geq 2$

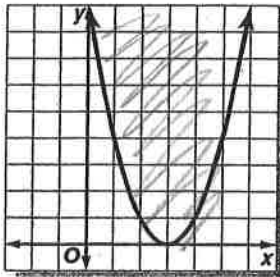
3. $y > x^2 - 2x - 8$



$-2 < x < 4$

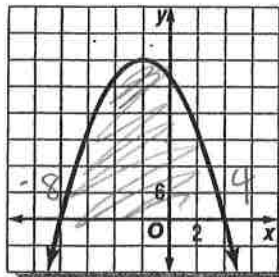
Use the graph of its related function to write the solutions of each inequality.

4. $x^2 - 6x + 9 \leq 0$



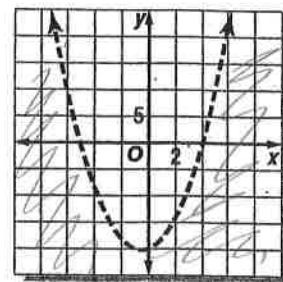
$x = 3$

5. $-x^2 - 4x + 32 \geq 0$



$-8 \leq x \leq 4$

6. $x^2 + x - 20 > 0$



$x < -5$ or $x > 4$

Solve each inequality

7. $x^2 - 3x - 10 < 0$ $y > x^2 - 3x - 10$
 $-2 < x < 5$ $(x-5)(x+2)$
 $x=5$ $x=-2$

8. $x^2 + 2x - 35 \geq 0$

$x \leq -7$ or $x \geq 5$

9. $x^2 - 18x + 81 \leq 0$

$x = 9$

10. $x^2 \leq 36$

$-6 \leq x \leq 6$

11. $x^2 - 7x > 0$

~~$x < 0$ or $x > 7$~~

12. $x^2 + 7x + 6 < 0$

~~$-6 < x < -1$~~