1-5 Additional Practice

Solving Equations and Inequalities by Graphing

Use a graph to solve each equation.

1. $4x + 6 = 8x - 10$ **2.** $-\frac{3}{4}x - 2 = -\frac{1}{2} + 1$ **3.** $|4 - 2x| + 5 = 9$

Use a graph to solve each inequality.

4. $x^2 + 4x - 5 < 0$ **5.** $x^2 - x - 12 \geq 0$ **6.** $-2x + 5 < -7 - 3x$

Use a graph and tables to solve the equation. Round to the nearest thousandth if necessary.

7. $x^2 + 3x - 5 = 4x + 3$ **8.** $x^2 - 7x - 5 = \frac{1}{2}x - 4$ **9.** $x^2 - 4x - 1 = x^2 + 2x + 4$

Use graphing technology to approximate the solutions of the equation to the nearest tenth.

10. $x^2 + 5x - 2$
$= 6 + |3x + 1|$

11. $x^2 + 5x - 2$
$= 6 + |3x + 1|$

12. $3 + |x - 3|$
$= \frac{1}{3}|x + 2| + 5$

13. Divit begins the summer having save $54.00 more than Fatima. Divit's job pays $8.25 per hour. Fatima's job pays $9.75. If they both work the same amount of time each day, how many hours of work will it take Divit to have as much money as Fatima. Write an inequality to set up this equation and then solve.

14. If you use a graph and a table to solve an equation that shows two expressions equal to one another, how can you use algebra to check your answer?