## 1-5 Reteach to Build Understanding

Solving Equations and Inequalities by Graphing

1. The inequality $x^{2}-9 x+8>0$ is shown in the graph. Find the values of $x$ that result in the equation being greater than 0 .
a. Highlight the lines on the graph where $y>0$ (or above the $x$-axis). All of these points are solutions.
b. Circle the points where the graph crosses the $x$-axis. These points are where the expression is equal to zero.
 These are not solutions.
c. Draw an arrow pointing left or right from each point showing where the graph crosses the $x$-axis. The arrows show one of the directions that the graph is going from that point.
d. Solve by filling in the table:

|  | Choose < or > based off <br> of arrow direction. <br> Left: less than (<) <br> Right: greater than (>) | Point that graph <br> intersects the $x$ axis |
| :--- | :--- | :--- |
| $x$ |  |  |
| $x$ |  |  |

2. Kennedy graphed the equation $x^{2}-4 x+3<0$. Based on the graph she concluded that $x<1$ or $x>3$. What mistake did she make? What is the correct solution?

3. Solve $|x+2|-3=x^{2}-6 x+5$ by graphing.
a. Circle the points of intersection.
b. Write the $x$ values for the answer:

