**A1 U3 Systems with Absolute Value** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Solve the following systems by graphing.

1. $\left\{\begin{array}{c}y=x\\y=\left|x-2\right|\end{array}\right.$ 2. $\left\{\begin{array}{c}y=1\\y=-\left|x+2\right|+2\end{array}\right.$

  

Solve the following systems algebraically.

3. $\left\{\begin{array}{c}y=\left|x-3\right|\\y=-\frac{1}{2}x+3\end{array}\right.$ 4. $\left\{\begin{array}{c}y=\left|x\right|\\y=\frac{1}{2}x+3\end{array}\right.$

5. $\left\{\begin{array}{c}y=\left|2x+2\right|\\y=x-1\end{array}\right.$ 6. $\left\{\begin{array}{c}y=\left|x+1\right|\\y=-x+5\end{array}\right.$

7. $\left\{\begin{array}{c}y=\frac{x}{5}+1\\y=\left|x-2\right|-1\end{array}\right.$ 8. $\left\{\begin{array}{c}y=-\left|x-1\right|+4\\y=\frac{1}{3}x+1\end{array}\right.$