

Bellwork Alg 2A Monday, September 26, 2016

Solve each inequality. Give your answer as a single statement if possible.

1. $3M + 1 < 11$ or $6 - 2M < 7$ 2. $Q \leq 9$ or $Q \leq 23$

3. $c < 1$ and $c > 4$

4. $-6 \leq B + 2$ AND $B \geq -2$

5. $W < -5$ or $W > 0$

6. $R \geq 3$ and $-\frac{R}{2} + 3 \geq 23$

7. $-13 < 2x + 1 < 17$

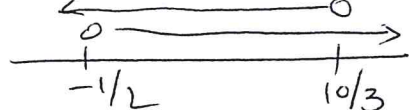
8. $14 > 4 - 5x > 24$

Solve each inequality. Give your answer as a single statement if possible.

1. $3M+1 < 11$ or $6-2M < 7$

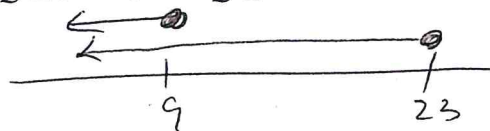
$$\begin{array}{rcl} -1 & -1 & \\ \hline 3M & < & 10 \\ \hline \frac{3M}{3} & < & \frac{10}{3} \end{array} \quad \begin{array}{rcl} -6 & -6 & \\ \hline -2M & < & 1 \\ \hline \frac{-2M}{-2} & < & \frac{1}{-2} \end{array}$$

$$M < \frac{10}{3} \text{ or } M > -\frac{1}{2}$$



ALL REAL #s

2. $Q \leq 9$ or $Q \leq 23$



$Q \leq 23$

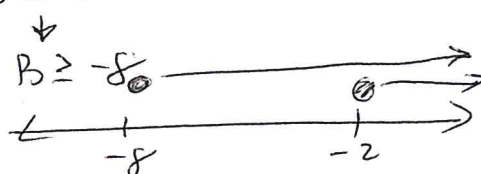
3. $c < 1$ and $c > 4$



NO SOLUTION

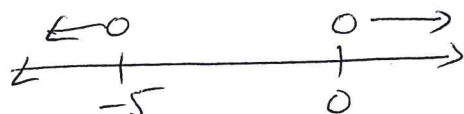
4. $-6 \leq B+2$ AND $B \geq -2$

$$\begin{array}{rcl} -2 & -2 & \\ \hline -8 & \leq & B \end{array}$$



$B \geq -2$

5. $W < -5$ or $W > 0$

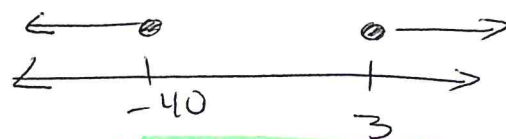


$W < -5$ or $W > 0$

6. $R \geq 3$ and $-\frac{R}{2} + 3 \geq 23$

$$\begin{array}{rcl} -3 & -3 & \\ \hline (-2)(-\frac{R}{2}) & \geq & (20)(-2) \end{array}$$

$$R \leq -40$$



NO SOLUTION

7. $-13 < 2x+1 < 17$

$$\begin{array}{rcl} -1 & -1 & -1 \\ \hline -14 & < & 2x < 16 \\ \hline \frac{-14}{2} & < & \frac{2x}{2} < \frac{16}{2} \end{array}$$

$-7 < x < 8$

8. $14 > 4-5x > 24$

$$\begin{array}{rcl} -4 & -4 & -4 \\ \hline 10 & > & -5x > 20 \\ \hline \frac{10}{-5} & > & \frac{-5x}{-5} > \frac{20}{-5} \end{array}$$

$$\frac{10}{-5} > -5x > \frac{20}{-5}$$

$$-2 < x < -4$$

$x > -2$ and $x < -4$



NO SOLUTION