

Algebra 1 Bellwork Monday, November 16, 2015

Graph each compound inequality on a number line.

1. $C \geq 2$ and $C \leq 9$

2. $W \leq 1$ or $W > 99$



Solve each compound inequality and graph the solution.

3. $6 - 4x > 30$ or $\frac{4}{3}x - 5 > 31$

4. $3m - 1 \geq 29$ and $8 - \frac{m}{2} \geq -12$

Sol:

Graph:

Sol:

Graph:

5. $25 > 7 - 4c \geq 13$

Sol:

Graph:

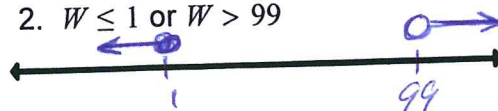
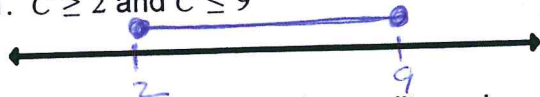
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Answers

Graph each compound inequality on a number line.

1. $C \geq 2$ and $C \leq 9$

2. $W \leq 1$ or $W > 99$



Solve each compound inequality and graph the solution.

$$\begin{array}{rcl} 3. & 6 - 4x > 30 & \text{or} & \frac{4}{3}x - 5 > 31 \\ & -6 & & +5 & +5 \\ & -4x > 24 & & \frac{4}{3}x > 36 & \cdot \frac{3}{4} \\ & \frac{-4x}{-4} > \frac{24}{-4} & & \frac{4}{3} \cdot \frac{3}{4} x > 36 \cdot \frac{3}{4} \\ & x < -6 & \text{or} & x > 27 \end{array}$$

$$\begin{array}{rcl} 4. & 3m - 1 \geq 29 & \text{and} & 8 - \frac{m}{2} \geq -12 \\ & +1 & & -8 & -8 \\ & 3m \geq 30 & & (-2)(-\frac{m}{2}) \geq (-20)(-2) \\ & \frac{3m}{3} \geq \frac{30}{3} & & m \geq 40 \\ & m \geq 10 & \text{and} & m \leq 40 \end{array}$$

Sol: $x < -6$ or $x > 27$
Graph:

Sol: $m \geq 10$ and $m \leq 40 \rightarrow 10 \leq m \leq 40$
Graph:

5. $25 > 7 - 4c \geq 13$

$$\begin{array}{rcl} & -7 & -7 & -7 \\ & 18 > -4c \geq 6 \\ & \frac{18}{-4} > \frac{-4c}{-4} \geq \frac{6}{-4} \end{array}$$

Sol: $-4.5 < c \leq -1.5$

Graph: