Algebra 2 Bellwork Monday, September 21, 2015

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

1. $M > -4$ *or* $M < 7$

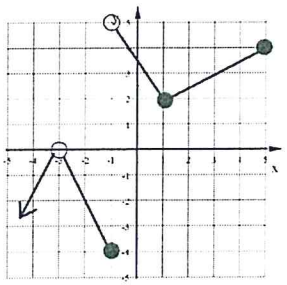
2. $Q \leq 9$ *or* $Q \leq 23$

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

4. $B \geq -8$ *and* $B \geq -2$

5. Solve this inequality. $5x - 2(x + 6) \geq x + 3(x - 2) - x$

6. State the Domain and Range of the graph shown below.



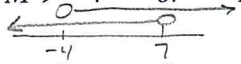
Domain:

Range:

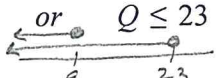
Algebra 2 Bellwork Monday, September 21, 2015 ANSWERS

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

1. $M > -4$ *or* $M < 7$ R

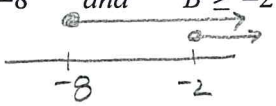


2. $Q \leq 9$ *or* $Q \leq 23$ $Q \leq 23$



3. $c < 1$ *and* $c > 4$ NO SOL

4. $B \geq -8$ *and* $B \geq -2$ $B \geq -2$



5. Solve this inequality. $5x - 2(x + 6) \geq x + 3(x - 2) - x$

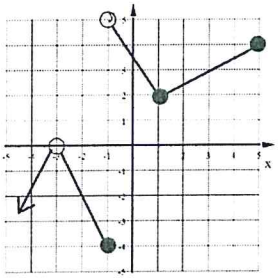
NO SOL

$5x - 2x - 12 \geq x + 3x - 6 - x$

$3x - 12 \geq 3x - 6$

$-12 \geq -6$

6. State the Domain and Range of the graph shown below.



Domain: $x \leq 5$

Range: $y < 0$, $2 \leq y < 5$