Bellwork Honors Alg 2 Thursday, September 15, 2016

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

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

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

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

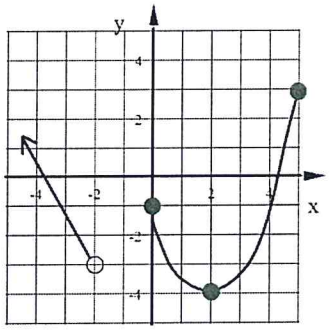
4. $B \geq -8$ *AND* $B \geq -2$

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

6. $R \geq 3$ *and* $R \leq 10$

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

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



9. Use the graph shown at the right.

a) Use inequalities to state Domain & Range.

Domain Range

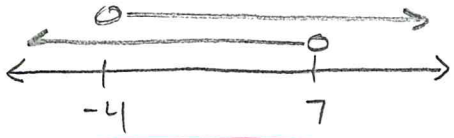
b) Use inequalities to state intervals of Inc and Dec.

Increasing Decreasing

Bellwork Honors Alg 2 Thursday, September 15, 2016 Answers

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

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



ALL REAL #'s

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

$Q \leq 23$

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

NO SOLUTION

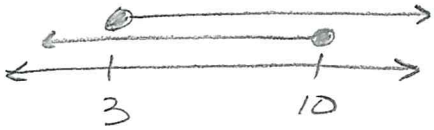
4. $B \geq -8$ *AND* $B \geq -2$

$B \geq -2$

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

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

6. $R \geq 3$ *and* $R \leq 10$



$3 \leq R \leq 10$

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

$-1 \quad -1 \quad -1$

$\frac{-14}{2} < \frac{2x}{2} < \frac{16}{2}$

$-7 < x < 8$

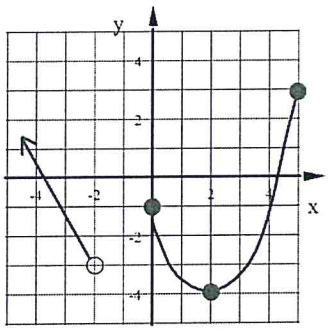
8. $14 > 4 - 5x > 24$

$-4 \quad -4 \quad -4$

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

$-2 < x < -4$ → $x > -2$ AND $x < -4$

NO SOLUTION



9. Use the graph shown at the right.

a) Use inequalities to state Domain & Range.

Domain: $x < -2, 0 \leq x \leq 5$ Range: $y \geq -4$

b) Use inequalities to state intervals of Inc and Dec.

Increasing: $2 < x < 5$ Decreasing: $x < -2, 0 < x < 2$