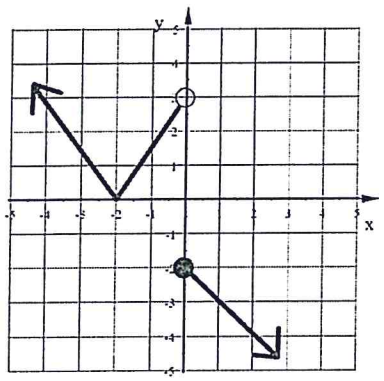
Algebra 2 Bellwork Monday, September 14, 2015

1. For the graph below use inequalities to state the Domain, Range, Intervals of Increasing, and Intervals of Decreasing.

Domain: Range: Inc: Dec:



2. Solve this equation for R. State restrictions on the variables. $\frac{\sqrt{KR-M}}{A} - B = G$

R = Restrictions:

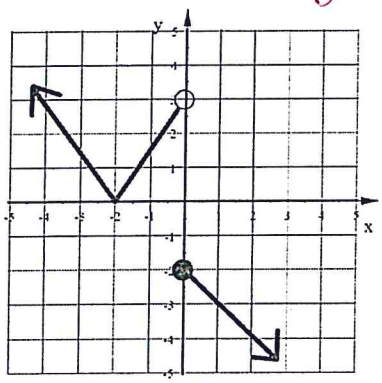
3. Solve this system of equations: $4x - 3y = -17$ $5x + y = -7$

Give your answer as an ordered pair.

Algebra 2 Bellwork Monday, September 14, 2015 ANSWERS

1. For the graph below use inequalities to state the Domain, Range, Intervals of Increasing, and Intervals of Decreasing.

Domain: R Range: $y \le -2, y \ge 0$ Inc: $-2 < x < 0$ Dec: $x \le -2, x > 0$



2. Solve this equation for R. State restrictions on the variables. $\frac{\sqrt{KR-M}}{A} - B = G$

R = $R = \frac{[A(G+B)]^2 + M}{K}$

Restrictions: $A \neq 0$, $K \neq 0$, $KR - M \geq 0$

3. Solve this system of equations: $4x - 3y = -17$ $5x + y = -7$ Give your answer as an ordered pair. $(-2, 3)$

ELIMINATION

$4x - 3y = -17$

$3(5x + y = -7)$

$4x - 3y = -17$

$+ \; 15x + 3y = -21$

$19x = -38$

$x = -2$

find y: $5(-2) + y = -7$ $y = 3$

SUBSTITUTION

Solve 2nd eq for y

$y = -7 - 5x$

now substitute into 1st eq

$4x - 3(-7 - 5x) = -17$

$4x + 21 + 15x = -17$

$19x + 21 = -17$

$19x = -38$

$x = -2$

SUBSTITUTE TO find y: $y = -7 - 5(-2) = -7 + 10 = 3$