

Algebra 2 Bellwork Thursday, September 11, 2014

For 1 and 2, solve for the indicated variable. State restrictions on the variables.

1. Solve for C $Q = \frac{C+P}{C-A}$

2. Solve for R $A\sqrt{KR-M} - B = G$

3. Use this set of points. $(6, -9), (2, 4), (-1, 3), (6, 8), (4, -5)$

a. State the Domain and Range function?

b. Does this set of points represent a

4. Use these two functions: $f(x) = 9x - 5$

$g(x) = 4x + 3$

a. Find $g(2)$

b. Find $f(g(2))$

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For 1 and 2, solve for the indicated variable. State restrictions on the variables.

1. Solve for C $Q = \frac{C+P}{C-A}$

$$\begin{aligned} Q(C-A) &= C+P \\ QC - QA &= C+P \\ QC - C &= QA+P \\ C(Q-1) &= QA+P \end{aligned}$$

$$C = \frac{QA+P}{Q-1}$$

$$Q \neq 1$$

$$C-A \neq 0$$

2. Solve for R

$$A\sqrt{KR-M} - B = G$$

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

$$A \neq 0 \quad K \neq 0$$

$$KR-M \geq 0$$

$$A\sqrt{KR-M} = G+B$$

$$\sqrt{KR-M} = \frac{G+B}{A}$$

$$KR-M = \left(\frac{G+B}{A}\right)^2$$

$$KR = \left(\frac{G+B}{A}\right)^2 + M$$

3. Use this set of points. $(6, -9), (2, 4), (-1, 3), (6, 8), (4, -5)$

a. State the Domain and Range function?

$$\text{Domain: } \{-1, 2, 4, 6\}$$

$$\text{Range: } \{-9, -5, 3, 4, 8\}$$

b. Does this set of points represent a

No

Because when $x=6$ y is both -9 & 8

4. Use these two functions: $f(x) = 9x - 5$

$g(x) = 4x + 3$

a. Find $g(2)$

$$\begin{aligned} g(2) &= 4(2) + 3 \\ &= 8 + 3 \end{aligned}$$

$$g(2) = 11$$

b. Find $f(g(2))$

$$g(2) = 11$$

$$\begin{aligned} f(11) &= 9(11) - 5 \\ &= 99 - 5 \end{aligned}$$

$$f(g(2)) = 94$$