

Bellwork Hon Alg 2 Tuesday, April 11, 2017

Solve each equation for  $A$ .

1.  $W = P(R - A) + B$

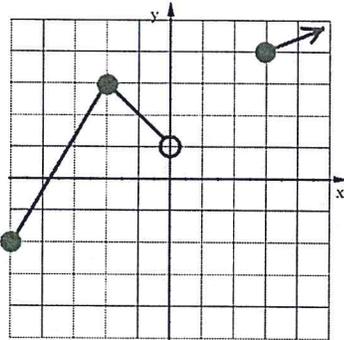
2.  $\frac{A - R}{Q} - A = C$

3.  $P = \frac{Q - B}{\sqrt{A + D}}$

4. Given the graph of  $f(x)$  shown below, answer the following:

a) Is  $f^{-1}(x)$  a function?

b) State the Domain and Range of  $f^{-1}(x)$



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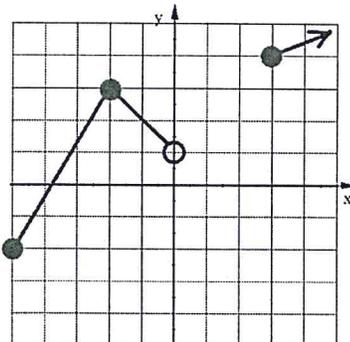
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$$(1) \quad W = P(R - A) + B$$

$$A = -1 \left( \frac{W - B}{P} - R \right) \text{ or } \frac{\frac{W - B}{P} - R}{-1} \text{ or several variations of these}$$

$$(2) \quad \frac{A - R}{Q} - A = C$$

$$Q \cdot \frac{A - R}{Q} = (C + A)Q$$

$$A - R = CQ + AQ$$

$$A - AQ = CQ + R$$

$$A(1 - Q) = CQ + R$$

$$A = \frac{CQ + R}{1 - Q}$$

$$(3) \quad P = \frac{Q - B}{\sqrt{A + D}}$$

$$(\sqrt{A + D})^2 = \left( \frac{Q - B}{P} \right)^2$$

$$A + D = \left( \frac{Q - B}{P} \right)^2$$

$$A = \left( \frac{Q - B}{P} \right)^2 - D$$

$$(3) \quad \text{Domain of } f(x) : -5 \leq x < 0, x \geq 3$$

$$\text{Range of } f(x) : -2 \leq y \leq 3, y \geq 4$$

$$\text{Domain of } f^{-1}(x) : -2 \leq x \leq 3, x \geq 4$$

$$\text{Range of } f^{-1}(x) : -5 \leq y < 0, y \geq 3$$