Bellwork   Alg 2A   Monday, October 24, 2016
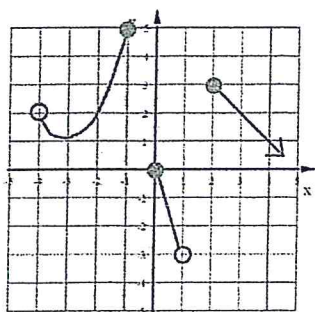
1. Find the Domain and Range of this graph.

Domain:

Range:

2. Use these functions: $f(x) = 3x - 1$ $g(x) = 2x^2 - 8$ $k(x) = \frac{2x-1}{x+4}$

a) Find $5g(-3) - 7f(4)$ b) Find x if $k(x) = 7$

3. The number of laps Amber walks varies directly with the amount of time she walks. She walked 8 laps in 50 minutes.
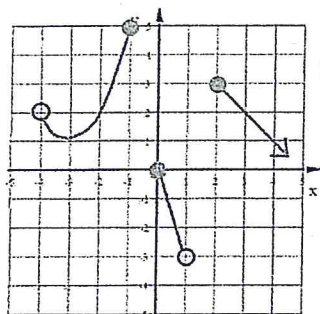a) Find the variation constant, including units.

b) Find the amount of time it will take her to walk 15 laps. Give the answer in hours, minutes, and seconds.

Bellwork   Alg 2A   Monday, October 24, 2016   *Answers*

1. Find the Domain and Range of this graph.

Domain: $-4 < x \leq -1, \quad 0 \leq x < 1, \quad x \geq 2$

Range: $y \leq 5$

2. Use these functions: $f(x) = 3x - 1$ $g(x) = 2x^2 - 8$ $k(x) = \frac{2x-1}{x+4}$ $x = -5.8$

a) Find $5g(-3) - 7f(4)$ b) Find x if $k(x) = 7$

$5(10) - 7(11)$

$50 - 77 = -27$

$\frac{7}{1} = \frac{2x-1}{x+4}$

$7(x+4) = 2x-1$

$7x + 28 = 2x-1$

$5x = -29$

3. The number of laps Amber walks varies directly with the amount of time she walks. She walked 8 laps in 50 minutes.
laps in 50 minutes.
a) Find the variation constant, including units.

$y = \#\text{laps} \quad x = \text{amt of time}$

$k = \frac{8 \text{ Laps}}{50 \text{ min}} = 0.16 \; ^{Lap}/_{min}$

b) Find the amount of time it will take her to walk 15 laps. Give the answer in hours, minutes, and seconds.

$y = 0.16x$

$15 = .16x$

$x = 93.75 \text{ min} \rightarrow$ 1 hr 33min 45sec

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