## **REVIEW - Relations & Functions**

representing relations through...

- 1) words
- 2) table
- 3) arrow diagram

- 4) coordinate pairs
- 5) graph
- 6) equation

desciribing the DOMAIN { x values } and RANGE { y values }

identifying a FUNCTION (each x value has one and only one y value)

\* vertical line test... intersects more than one point - NOT a function INDEPENDENT (x variable) versus DEPENDENT (y variable)

Function Notation... f(x) - same as the y variable (y is a function of x)

ex: 
$$f(x) = 3x + 1$$
 a)  $f(-4) =$ 

a) 
$$f(-4) =$$

$$a(x) = -2x - 4$$

- g(x) = -2x 4 b) find x when f(x) = 32
  - c) find f(g(-2)) =

Interpreting graphs...'telling the story' and answering questions.

\* must know how to read a distance/time graph

DISCRETE (counting/gaps... use dots) versus

CONTINUOUS (flows/no gaps...use lines/curves)

Graphing...building the axis, picking a scale, plotting points and graph!

Apr 14-9:53 AM

ex: 
$$f(x) = 3x + 1$$

$$a(x) = -2x - 4$$

- ex: f(x) = 3x + 1 a) f(-4) = g(x) = -2x 4 b) find x when f(x) = 32
  - c) find f(g(-2)) =

a) 
$$f(-4) = 3(-4) + 1$$
  
= -12 + 1

b) 
$$32 = 3x+1$$
  
 $3x+1 = 32$   
 $3x = 32-1$   
 $3x = 31$   
 $x = \frac{31}{3}$ 

c) 
$$g(-2) = -2(-2) - 4$$
  
=  $4 - 4$   
=  $0$   
 $f(b) = 3(0) + 1$   
=  $0 + 1$   
=  $1$ 

## **REVIEW QUESTIONS...**

- \* READ the study guide on p. 324 325
- \* PRACTICE from p. 326: #1 12
- \* PRACTICE TEST:

All questions except 5e & 5f

Apr 14-9:59 AM