



WELCOME TO “A FRESH LOOK AT FUNCTIONS”

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PARTNER RALLY

Person A will have 30 seconds to give a response to the question. Then person B will give a response.

What is a function??

WHAT KIND OF EXAMPLES HAVE TEXTBOOKS TRADITIONALLY USED TO ILLUSTRATE THE IDEA OF FUNCTIONS?

INPUT-OUTPUT TABLES Make an input-output table for the function. Use 0, 1, 2, and 3 as the domain.

13. $y = 3x + 2$

14. $y = 21 - 2x$

15. $y = 5x$

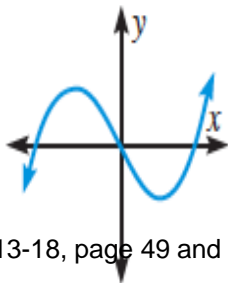
16. $y = 6x + 1$

17. $y = 2x + 1$

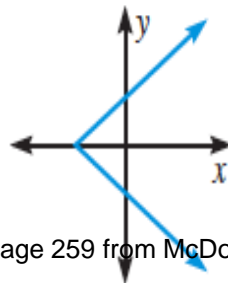
18. $y = x + 4$

GRAPHICAL REASONING Decide whether the graph represents y as a function of x . Explain your reasoning.

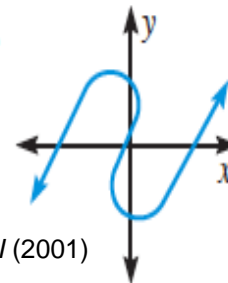
11.



12.



13.



Exercises #13-18, page 49 and Exercises #11-13, page 259 from McDougal Littell *Algebra I* (2001)

WTF???



WHAT IS A FUNCTION?

☹️ “a rule that establishes a relationship between two quantities” (Larson et al., 2001)

😊 “a rule that assigns to each element of a set A a unique element of a set B (where B may or may not equal A)” (Usiskin et al, 2003)

HOW ABOUT THESE.....

The area of a given rectangle M is A . (A is a function of M)

The rectangle of a given area A is M .

The center of a given circle C is the point P .

The center of a circle given by point P is circle C .

AND THESE??

The number of letters of an English word w
is X

The number of letters X in an English word
w

The perimeter of a given square S is P.

The square of perimeter P is S

NOW ITS YOUR TURN...

We believe that students should use experiences to build their conceptual understanding of functions

We will work through three problems as time allows.

Try to work through the problems from the point of view of students still yet forming the concept of function.

(These problems are presented as used in a middle school classroom. Consider how you would adapt these problems to fit your needs.)

ALGEBRA: STUDENT OBJECTIVE CARD

NAME: _____

OBJECTIVE	Dates Covered				Formative Assessment
CHAPTER 5: Intro to Functions and Graphs, Write a Model for a Function					
I can relate events to graphs and interpret graphs.					
I can draw graphs to represent events.					
I can identify whether a relation is a function.					
I can evaluate functions.					
I can graph functions using an XY-table.					
I can write a function rule from a table and from a graph.					
I can write a function rule for a real-life situation.					
I can determine whether a real-life situation is discrete or continuous.					

WHAT DO YOU THINK?



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