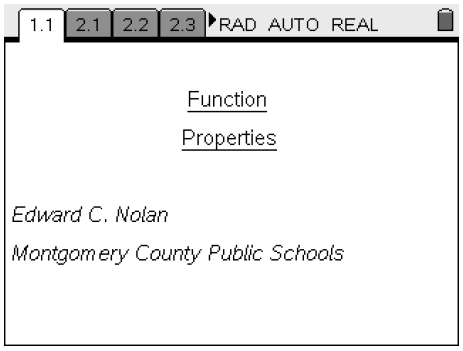
TI-nspire™

Name _____

Function Properties Activity



In this Activity, you will explore:

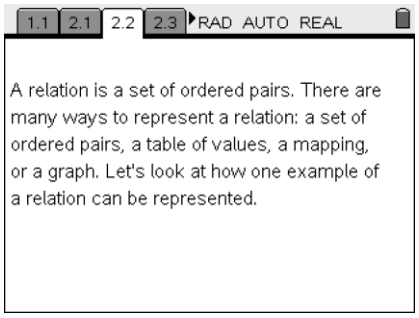
- *Relations and functions*
- *Properties of functions*

Open the file *Function_Properties.tns* on your handheld and follow the directions on the calculator and the worksheet. Use this document to answer questions and record results.

Stage 1: Learning about Relations and Functions

First, you will investigate the meaning of 'relation.'

Starting with page 2.2, read and complete the activities up to page 2.8. This will allow you to learn about different ways that relations can be represented, including how they are used to represent real world situations.



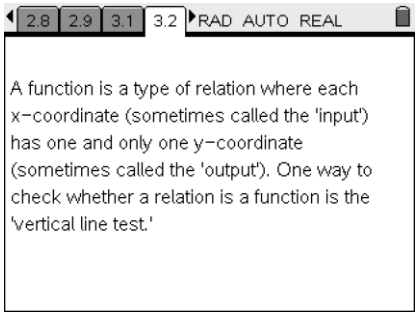
What do you notice about the relation on page 2.8? _____

_____

_____

Next, we will investigate the meaning of 'function.'

Starting with page 3.2, work through the properties that define how a relation can be a function. Note that the 'vertical line test' is just one representation that for each value of x, there can only be one value of y.



Next, we will investigate the properties of functions.

Name _____

Stage 2: Properties of Functions

Work through the different discussions of the properties of functions:

- Domain and range
- Continuity
- Maximum and minimum
- Intercepts
- Increasing and Decreasing

As you work through the activity, record your own definitions for each of the properties of functions

Domain: _____

_____

Range: _____

_____

Continuity: _____

_____

Maximum: _____

_____

Minimum: _____

_____

Intercepts: _____

_____

Increasing: _____

_____

Decreasing: _____

_____

Now, show the level of knowledge you have about relations, functions, and the properties of functions by completing the Exit Card.