

TI-Nspire Activity: *Function Junction*
By: Sunshine Light

Activity Overview

Students explore various representations of functions including written description, table, graph, and rule.

Concepts

*Writing Linear Equations for Functions
Interpreting Graphs of Linear Functions
Plotting Points*

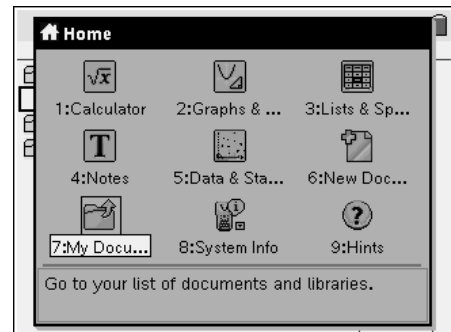
Teacher Preparation

Work through document in order to understand student expectations. Copy student packet (1 per pair).

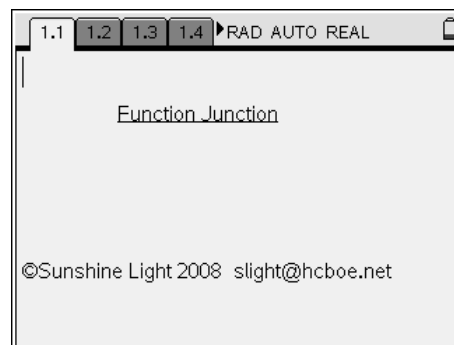
The Classroom.

This activity should be completed after students have a clear understanding of the coordinate plane and a basic notion for the meaning of slope. Students will discover patterns and begin to realize that a table is a way to organize ordered pairs. I suggest assigning this as a paired activity in order to encourage discussion and brainstorming. This is a bridge activity to slope and slope y-intercept form.

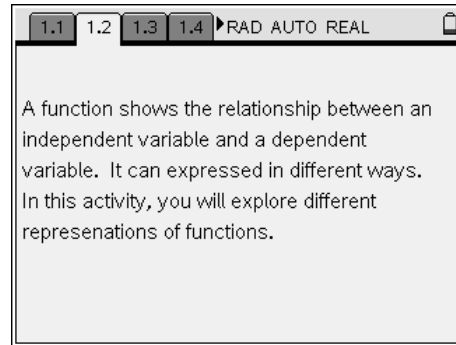
Go to home screen. Select my documents. Select Function Junction.



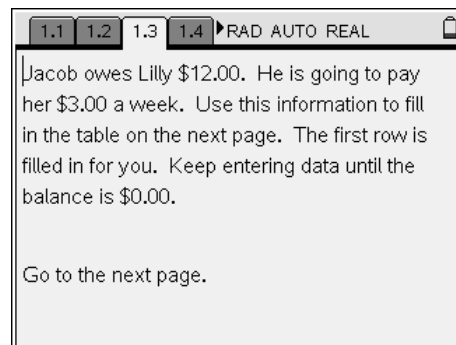
The Document *(1.1) Title Page*



(1.2) *definition of function*



(1.3) *Written description of function*



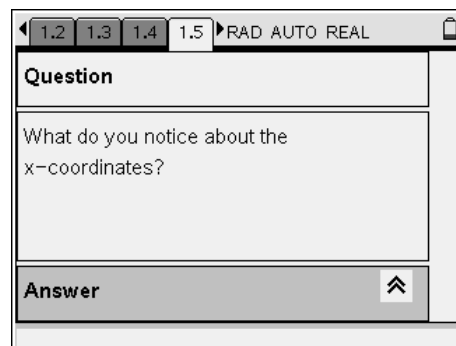
(1.4) *Student will fill in table electronically and in packet by continuing patterns until balance is 0.*

A	week	B	balance	C	D
1	0		-12		
2	1		-9		
3					
4					
5					

AT 0

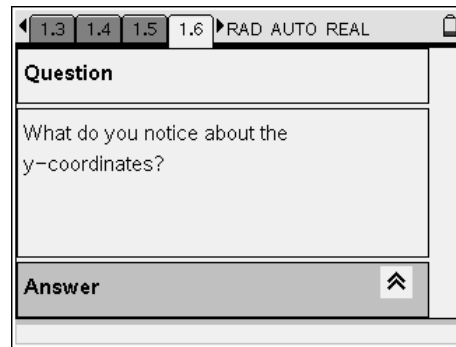
(1.5) *Students will record answer to this question on packet.*

Optional: students can check their answer by opening flash card with arrow.



(1.6) Students will record answer to this question on packet.

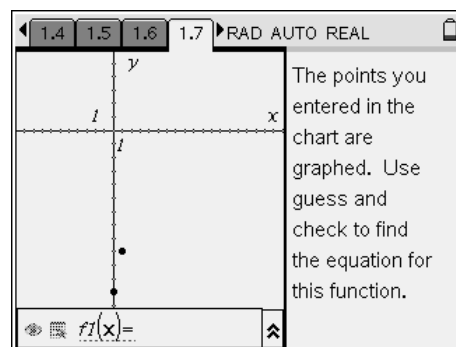
Optional: students can check their answer by opening flash card with arrow.



(1.7) Student will use guess and check to find function for the given situation. They will continue until they draw a line that “connects the dots.”

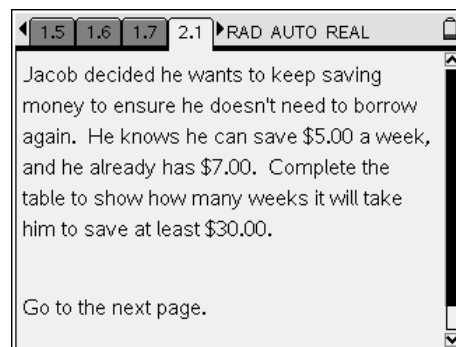
Students will also plot the points and write the function on the screenshot included in the packet.

The goal is for students to connect the fact that when $x=0$, y is the y -intercept.



Assessment: Students will bring their packet to the teacher for a teacher check. The teacher will look over each packet and instruct students as needed.

(2.1) Written description of function



(2.2) Student will fill in table electronically and in packet by continuing patterns until balance is 30.

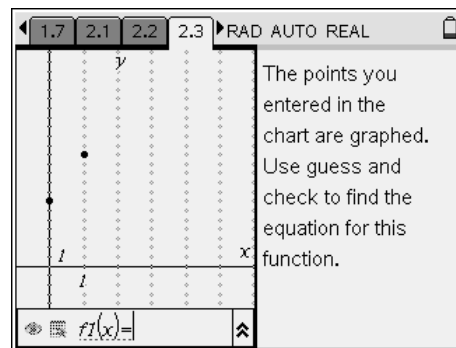
	A	B	C	D
	week	balance		
1	0	7		
2	1	12		
3				
4				
5				

A7 0

(2.3) Student will use guess and check to find function for the given situation. They will continue until they draw a line that “connects the dots.”

Students will also sketch the graph and write the function on the screenshot included in the packet.

The goal is for students to connect the fact that when $x=0$, y is the y -intercept.



Assessment: Students will write down their observations regarding the relationship between the table and the graph of the line. Students will bring their packet to teacher at this point. Teacher will guide students who have not met goals listed below.

Goal: when $x=0$, the y is where the line crosses the y axis & the slope is the “pattern” for finding y (which is a starting point for discussing slope- all of these examples have 1 for the change in x)

(3.1) Written description of function

Sally is reading a book that has 180 pages. If she reads 30 pages a day, how many days will it take her to finish the book? Complete the table to find the answer.

Go to the next page.

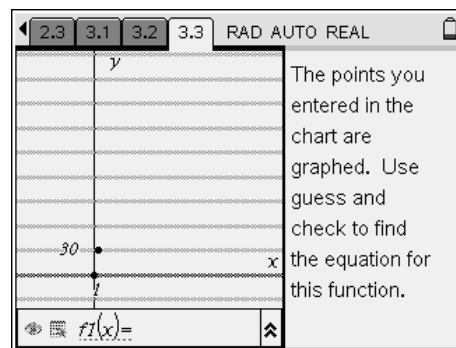
(3.2) Student will fill in table electronically and in packet by continuing patterns until total pages read is 180.

	A	B	C
	day	total_pages_read	
1	0	0	
2	1	30	
3			
4			
5			

(3.3) Student will use guess and check to find function for the given situation. They will continue until they draw a line that “connects the dots.”

Students will also sketch the graph and write the function on the screenshot included in the packet.

At this point, students should know when $x=0$, y is the y -intercept.



Students will answer questions on the packet in order to clarify their thinking process about using the table to help find the function rule.

Assessment: Students will complete additional practice on the packet.

Files:

- Function Junction.doc (packet)
- Function Junction.pdf (packet)
- Function Junction.tns
- Function Junctionans.tns