

# Relations and Functions



l e	sson Objectives (p. 44):	
	(β. 44).	
Vo	cabulary	
1.	Relation (p. 44):	
2.	Domain (p. 44):	
3.	Range (p. 44):	
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5.	Vertical-Line Test (p. 46):	



#### **Relations and Functions**



### Lesson Objectives (p. 44):

identify the domain and range of relations and functions.

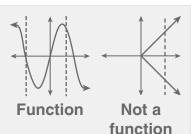
## **Vocabulary**

- 1. Relation (p. 44): a pairing of input values with output values.
- 2. Domain (p. 44): the set of input values for a relation.
- **3.** Range (p. 44): the set of output values for a relation.
- 4. Function (p. 45): a relation in which the first coordinate is never repeated.
  There is only one output for each input, each element of the domain is mapped to exactly one element of the range.

### **Key Concepts**

5. Vertical-Line Test (p. 46):

If any vertical line passes through more than one point on the graph of a relation, the relation is not a function.



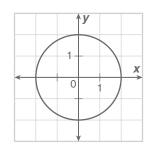
Get Organized of ordered pairs	give an ex	cample of a	table, a gra	aph, and a set
Relation				
Function				

**6. Get Organized** In each box, give an example of a table, a graph, and a set of ordered pairs. (p. 46).



 $\{(-2,\,0),\,(0,\,2),\,(0,\,-2),\,(2,\,0)\}$ 

X	-2	0	0	2
у	0	2	-2	0



## Function

{(-2, 2), (-1, 1), (0, 0), (1, 1), (2, 2)}

X	-2	-1	0	1	2
у	2	1	0	1	2

