



COUNTDOWN Challenge

November 8, 2007

Functions - Discovering a Rule

A function is a special number relationship in which the value of one variable depends on the value of another variable. Together, these values create an ordered pair.

Working with functions is kind of like detective work - you study clues, make hypotheses (try possibilities) and then draw conclusions (find answers).

Study the “clues” and “rules” below to complete the tables of ordered pairs.

clues

x	y
5	
6	
8	
9	
11	

rule

$$x + 11 = y$$

$$(5) + 11 = 16$$

clues

x	y
5	
6	
8	
9	
11	

rule

$$3x + 1 = y$$

$$3(5) + 1 =$$

clues

x	y
5	
6	
8	
9	
11	

rule

$$x^2 - 9 = y$$

$$(5)^2$$

Study the “clues” below. Circle the “rule” or function in each column that is used to calculate the set of ordered pairs.

clues

x	y
5	16
6	18
8	22
9	24
11	28

circle the rule

$$3x + 1 = y$$

$$2x + 6 = y$$

$$2x (10) = y$$

$$2x - 6 = y$$

$$20x = y$$

clues

x	y
5	4
6	6
8	10
9	12
11	16

circle the rule

$$3x + 1 = y$$

$$2x + 6 = y$$

$$2x (10) = y$$

$$2x - 6 = y$$

$$20x = y$$

clues

x	y
5	100
6	
8	160
9	
11	

circle the rule

$$3x + 1 = y$$

$$2x + 6 = y$$

$$2x (10) = y$$

$$2x - 6 = y$$

$$20x = y$$

Create three different “rules” to complete the tables of “clues” (ordered pairs) below.

clues

x	y
3	10
4	
5	
6	
7	

create a rule

clues

x	y
3	10
4	
5	
6	
7	

create a rule

clues

x	y
3	10
4	
5	
6	
7	

create a rule

