



# MathFLIX CHALLENGE

## 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.

<i>clues</i>	
$x$	$y$
5	
6	
8	
9	
11	

*rule*  
 $x + 11 = y$   
 $(5) + 11 = 16$

<i>clues</i>	
$x$	$y$
5	
6	
8	
9	
11	

*rule*  
 $3x + 1 = y$   
 $3(5) + 1 =$

<i>clues</i>	
$x$	$y$
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.

<i>clues</i>	
$x$	$y$
5	16
6	18
8	22
9	24
11	28

*circle the rule*  
 $3x + 1 = y$   
 $2x + 6 = y$   
 $2x (10) = y$   
 $2x - 6 = y$   
 $20x = y$

<i>clues</i>	
$x$	$y$
5	4
6	6
8	10
9	12
11	16

*circle the rule*  
 $3x + 1 = y$   
 $2x + 6 = y$   
 $2x (10) = y$   
 $2x - 6 = y$   
 $20x = y$

<i>clues</i>	
$x$	$y$
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.

<i>clues</i>	
$x$	$y$
3	10
4	
5	
6	
7	

*create a rule*

<i>clues</i>	
$x$	$y$
3	10
4	
5	
6	
7	

*create a rule*

<i>clues</i>	
$x$	$y$
3	10
4	
5	
6	
7	

*create a rule*