# WRITE A FUNCTION RULE GIVEN A TABLE OF VALUES

*In this lesson, we find the function rule given a table of ordered pairs. We first identify the input and the output variables and their values. We find if the function is.*

Start by selecting values for x. Yeah, that looks right. They tell us that g of 1 is equal to 2. Instructional Implications If the student referred to the common ratio as the growth factor, commend him or her on observing the relationship between geometric sequences and exponential functions. And you see that. Usually, a table of values would be given and the question asked to find the function rule between the two variables. Now we need to figure out what g of x is. Function tables demonstrate a quantitative relationship between two variables: an independent relationship and a dependent relationship. And let me just rewrite that. Input, output and relationship are three main parts used in function. Instructional Implications Assist the student in identifying a sequence as arithmetic by observing a common difference between pairs of successive terms. You can choose any values you like, but it is generally the best practice to select integers close to zero, because this entails relatively simpler arithmetic calculations. Divide both sides of this equation by 3. You could write it that way if you want, any which way. Let's check our answer. We have to figure out the slope of this line. And f of x finishes at 7 and started at 5. Why or why not? Example: For the table below, write the function rule for y in terms of x. So let's actually just type that in. To find the function rule we have to observe the given data carefully that how input and output values are related to each other. Actually, let me just write it this way. What kind of function describes this type of sequence? Definition Any 2-variable function is an equation between two variables, one variable called the independent variable x and the second variable called the dependent variable y. It could be 3 times r to the first power, or we could just write that as 3 times r. Instructional Implications Challenge the student to write a function rule for a sequence represented by a quadratic function such as 2, 6, 12, 20, 30â€¦. And I always like to use the situation when x equals 0 because that makes it very clear what the y-intercept is going to be. And function helps to relate an input to an output. Or this is just going to be equal to b. What kind of function can be written for an arithmetic sequence?