Understanding Function Notation Assignment

The purpose of this writing assignment is to stimulate thinking as you relate function notation to real world applications.

Tasks:

1. Create a function that represents one of the situations listed below or a topic of your choosing. When you create your function, use variables that relate to the topic.
   - Monthly cell phone bill
   - Cost of a rental car
   - Price of an item plus tax
   - Income of a person who earns salary and commission
   - Amount of bacteria in a petri dish after time has passed
   - Cost to mail a package
   - Amount of an investment over time

2. Use two numerical examples to explain your function.

   For example, if I wanted to create a function that represents the price of a pizza, I would write \( P(t) = 7.99 + 1.25t \). The price of my pizza \( P(t) \) is determined by the base price of a pizza $7.99 plus $1.25 per topping.

   \[ P(2) = 7.99 + 1.25(2) \]
   \[ P(2) = 7.99 + 2.50 = 10.49 \]

   Explanation of function: The price of a pizza with two toppings would cost $10.49

3. Write your two numerical examples as an ordered pair.

4. Post steps 1 – 3 to the discussion board in Falcon Online.

5. Next, read at least two posts of other students.

6. After reading at least two other posts, reply to one other post with a correction/addition that enhances the explanation.

7. Last, reply to your own post regarding how reading other student’s posts were helpful in understanding the concepts.

Grading criteria: You will earn a 100% on this writing assignment if you complete all seven of the above tasks. You will earn a 0% if you do not complete all seven of the above tasks.