Chapter 5 TEST

1. Jose leaves his home and walks to the store. It takes him 10 minutes to reach the store. After buying a drink (which took 5 minutes), he slowly jogs to his friend’s house. It takes him 20 minutes. He visits with his friend for 1 hour and then runs directly home at the same speed as previously.   
    A drawing of a tree and a line

   Description automatically generated  
   a) Using the distances shown above, draw a distance-time graph that shows Jose’s distance from his house as a function of time. [2]  
     
     
   b) Draw a speed-time graph of the same situation. [2]  
   A grid of white squares

   Description automatically generated
2. For the following graphs, determine the domain and Range and say if it represents a function of not. [12]  
   A graph of a graph of a line

   Description automatically generated  
     
   A graph of a function

   Description automatically generated  
     
   A graph of a function on a graph paper

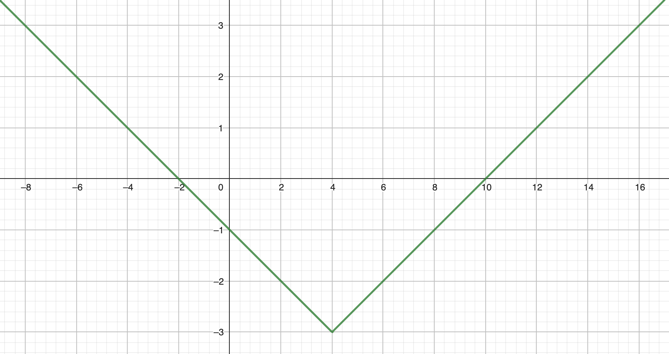
   Description automatically generated  
     
   A graphing of a circle with a line in the center

   Description automatically generated  
     
   A graph of a function

   Description automatically generated  
     
   A graph of a triangle with a red line

   Description automatically generated
3. Are these following relations functions? No justification required. [2]  
     
   A diagram of a circle with black lines and points

   Description automatically generated A graph of a function

   Description automatically generated
4. Consider the following graph of a function *f*. Determine the following values: [4]  
     
   

such that   
  
 such that

1. a) If you want to graph a relation, which variable (dependent or independent) do you put on the *y*-axis? [2]  
     
   b) If you create a vertical table of values on which column do you put the values of the independent variable?  
     
   c) If there is a relation between a price paid and the number of guests invited, which one is the dependent variable?  
     
   d) In the formula , which variable is the independent one?
2. Fill the table of values for the following equation and graph your data. [2]  
     
    A grid of white squares

   Description automatically generated

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. a) Graph 2 relations with domains and Ranges . [2]  
   The first one should be a function, and the 2nd one should not be a function.  
   A grid of white squares

   Description automatically generated A grid of white squares

   Description automatically generated  
     
   b) Same question with domains and Ranges [2]  
   A grid of white squares

   Description automatically generated A grid of white squares

   Description automatically generated
2. Consider the following function: [4]  
   Determine the following values (make sure you present your work properly):   
     
   a)   
     
   b)   
     
   c) such that   
     
     
     
   d) such that