Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block:\_\_\_

Quiz: Unit3. Relations, Functions

Practice

Chapter 3

Group A.

There are 5 questions in this quiz, each of equal value.

Standard time for the test is 15 minutes .

No calculator is allowed. (accommodation excepted)

**Question 1:**

For each of the following, determine the Domain, Range, and for the Type choose the most specific name from the following list: “Relation”, “Function”, or “1-to-1 function”.

|  |  |
| --- | --- |
| a.    Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Range:\_\_\_\_\_\_\_\_\_\_\_\_\_  Type:\_\_\_\_\_\_\_\_\_\_\_\_ | b.    Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Range:\_\_\_\_\_\_\_\_\_\_\_\_\_  Type:\_\_\_\_\_\_\_\_\_\_\_\_ |
| c.    Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Range:\_\_\_\_\_\_\_\_\_\_\_\_\_  Type:\_\_\_\_\_\_\_\_\_\_\_\_ | d.    Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Range:\_\_\_\_\_\_\_\_\_\_\_\_\_  Type:\_\_\_\_\_\_\_\_\_\_\_\_ |

**Question 2:**

Given the following definitions:

, ,

Find the following:

a)

b)

c)

d)

**Question 3:**

Given the following definitions:

, ,

Find the following:

a)

b)

c)

d)

**Question 4:**

In a parking garage the sign says:

1. First 2hrs (or part thereof) : $18
2. Every additional hour over (or part thereof) : $5

Assuming you will park for at least 3 hours (and possibly more), express your final cost as a combination of the following functions (you can use all the operations we learned in class on functions)

, ,

Explain your reasoning in not more than 3 sentences.

Note: You can assume that the number of hours is given as an integer.

|  |  |
| --- | --- |
| **Question 5a:**  Simplify the following expression so it includes only positive exponents. | **Question 5b:**  Solve the equation , for . |

=== End ====