**Ch 3: Relations (Day 1)**

Relations are sets of \_\_\_\_\_ \_\_\_\_\_\_\_ (x, y)

The x-values are the \_\_\_\_\_\_\_\_\_\_\_\_ of the relation

The y-values are the \_\_\_\_\_\_\_\_\_\_\_\_ of the relation

To find solutions to a relation, values are arbitrarily assigned for x from the set of real numbers.

This means x is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable and it is the “input values” that produces “output values” or y.

The output value or **y** depends on the value of the input value or **x**.

**Example:**

|  |  |  |
| --- | --- | --- |
| **Input**  **x** | **Relation**  **y = 2x + 1** | **Output**  **y** |
| -3 |  |  |
| 0 |  |  |
| 2 |  |  |

These values represent 3 solutions to infinitely many solutions to the relation **y = 2x + 1**. The solutions can be presented in many ways.

**Ordered Pairs:** ( , ), ( , ), ( , )

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| --- | --- |
| x | y |
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**Table:**

**Graph:**

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**State the Domain and Range of the following relations:**

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d) {(1,1),(2,3),(3,5),(-1,1)} e) {(-2,5),(3,-4),(3,7),(4,0)} f) {(0,0),(1,1),(-3,1)}

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j) D:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



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**Determine the Domain and Range**

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j) D:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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