Linear Functions

Dom

SOL 8.14.8.16, and 8.17

REVIEW:

What is a **function**?

* Remember: A **function** is a rule that has a unique output value for each input value.
* This means that there is **only one** \_\_\_\_\_ value for each \_\_\_\_\_ value.

What are **domain and range**?

* Remember: The **domain** is the set of \_\_\_\_\_\_\_\_\_ coordinates.
* Remember: The **range** is the set of \_\_\_\_\_\_\_\_\_ coordinates.

\*A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\* The graph of a linear equation is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*A linear equation represents a situation with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_.

\* To graph a linear equation:

1) create a \_\_\_\_\_\_\_\_\_

2) plot the \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

3) connect the points to form a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**I. Graph each linear function. Then, identify the domain and range of the ordered pairs.**

**1) Function Rule: Table: Graph:**

|  |  |  |
| --- | --- | --- |
| **Input x** |  | **Output**  **y** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

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**y = x -3**

**Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2) Function Rule: Table: Graph:**

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|  |  |  |
| --- | --- | --- |
| **Input x** |  | **Output**  **y** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**y = -3x**

**Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**3) Function Rule: Table: Graph:**

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**y = -3x + 2**

|  |  |  |
| --- | --- | --- |
| **Input x** |  | **Output**  **y** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**II: Find four solutions of each equation, and write the solutions as ordered pairs.**

1. x – y = 3 2. y = 5x -6 3. 