Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_ Number: \_\_\_\_\_\_\_\_\_\_\_\_

Math 8 / 8H

**4.1b HW**

**1.** Make a table of values and plot the following function on the graph below: .

|  |  |
| --- | --- |
| ***x*** |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |

****

 Is this linear or nonlinear graph? Why?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.** Graph the following table; determine whether it is linear or nonlinear.

|  |  |
| --- | --- |
| *x* | *y* |
|  - 4 | 4 |
|  -2 | 0 |
| 0 | -4 |
| 2 | -8 |



**4.** With the following 4 tables, tell me whether they are linear or not. If they are linear, what is the rate of change?

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **x** | 3 | 6 | 9 | 12 |
| **y** | 12 | 10 | 8 | 6 |

 |

|  |  |
| --- | --- |
| Input | Output |
| 3 | -7 |
| 7 | -5 |
| 9 | -1 |
| 10 | 0 |

 |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | 5 | 7 | 11 | 13 |
| Y | 12 | 8 | 0 | -4 |

 |

|  |  |
| --- | --- |
| X | Y |
| 0 | 0 |
| 1 | -1 |
| 2 | -2 |
| 3 | -3 |

 |

****

**5.**

6.