Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_\_Period: \_\_\_\_\_\_Date: \_\_\_\_\_\_

**6.3A NOTES – Linear Functions**

*HW: (6.3A) p. 261 #5 – 10, 20 - 23 (Solutions on p. A29)*

*Objective: Interpret y = mx + b as defining a linear function. Writing linear functions from tables. CCSS: 8.F.3*

**A LINEAR FUNCTION** can be written in the form y = mx + b, where m is the slope and b is the y-intercept.

|  |  |
| --- | --- |
| **Writing a Linear Function Using a Graph**  To find slope or “m”    To find y-intercept or “b”  **IT IS THE POINT THAT LIES ON THE Y-AXIS** | **EXAMPLE 2: Writing a Linear Function Using a Table**  To find slope or “m”  To find y-intercept or “b”  **WHEN x = 0,**  **THE “y value” IS THE Y-INTERCEPT.**  FOR EXAMPLE, (0,2) THE Y-INT. OR b is **2** |
| **EXAMPLE 1: Use the graph to write a linear function that relates y to x.** | **EXAMPLE 2: Use the table to write a linear function that relates y to x.** |
| **EXAMPLE 3: Use the graph to write a linear function that relates y to x.** | **EXAMPLE 4: Use the table to write a linear function that relates y to x.** |



|  |  |
| --- | --- |
|  |  |
| 3. | 4. |
| 5. | 6. |
| 7. | 8. |

|  |  |  |
| --- | --- | --- |
| |  |  | | --- | --- | | **9. MOVIES:** The table shows the cost y (in dollars) of renting x movies.     1. The independent variable is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   The dependent variable is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. Write a linear function that relates y to x. Interpert the slope.   Linear function: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  The slope in the linear function means: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. Graph the linear function 2. How much does it cost to rent 3 movies?   It costs \_\_\_\_\_\_\_\_\_ to rent 3 movies. |  | |

Took this off so we could include “MOVIE” question

WARM UP

|  |  |  |
| --- | --- | --- |
| 1. Graph y = -3 | 2. Graph x = 4 | 3. Graph |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | 1 | 2 | 3 | 4 | 5 |
| y | 7 | 14 | 21 | 28 | 35 |