Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_

**6.2A Representations of Functions\_Classwork**

*Objective: Write function rules. Use input-output tables to represent functions. Use graphs to represent functions. (CCSS: 8.F.1)*

*HW: (6.2) p. 253 #2, 4-6, 7-23 odd, 25, 26 (Solutions on p. A28) – use handout*

Warm Up

|  |  |
| --- | --- |
| 1.Solve for y. $2x-y=6$  | 2.One solution, many solutions, or no solutions. $4x+2=2(x+1)$ |

Read p. 250-2, particularly Examples 1 – 4. Fill in the blanks and do the On Your Own Problems

Also pay attention to the FIVE WAYS TO REPRESENT AN EQUATION

|  |  |
| --- | --- |
|  |  An independent variable represents a quantity that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_A dependent variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Writing Function Rules -- (1) WORDS & (2) EQUATIONS

|  |  |
| --- | --- |
| Example 1: Write a function rule for “The output is one-fourth of the input.” | Example 2: Write a function rule for “The output is three less than the input.” |
| 1. Write a function rule for “the output is twice the input.”
 | 1. Write a function rule for “The output is 4 greater than one-third of the input.”
 |

DIRECTIONS: Evaluating a Function. Find the value of *y* for the given value of *x*.

|  |  |  |
| --- | --- | --- |
| 3. y = 4x – 1; x = 5 | 4. y = 10x; x = 5 | 5. y = 7 – 3x; x = 5 |

DIRECTIONS: (3) GRAPHS

Pick your own x values. HINT: If the coefficient is a whole number, then pick small x values such as -2, -1, 0, -1 , 2. If the coefficient is a fraction, then the pick x values that are multiple of the coefficient.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6. Graph $y = 2x + 1$

|  |  |  |
| --- | --- | --- |
| x | $$2x + 1$$ | (x, y) |
|  |  |  |
|  |  |  |
|  |  |  |

 | 7. Graph $y = \frac{x}{3}$

|  |  |  |
| --- | --- | --- |
| x | $$\frac{x}{3}$$ | (x, y) |
|  |  |  |
|  |  |  |
|  |  |  |

 | 8. y = $\frac{1}{2}x-1$

|  |  |  |
| --- | --- | --- |
| x | $$\frac{1}{2}x-1$$ | (x, y) |
|  |  |  |
|  |  |  |
|  |  |  |

 |

Real Life Application—(4) TABLES & (5) MAPPING DIAGRAMS

|  |
| --- |
| 9. The distance *m* in miles traveled by a car is 35 times greater than the number of gallons *g* of gasoline  used by the car. Graph a function that describes the relationship between g and m. Then make a mapping diagram of the situation.    |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table# \_\_\_ Per \_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6.2A HW TEXTBOOK**

HW: (6.2) p. 253 #2, 4 – 6, 7 – 23 odd, 25, 26 (HINT FOR #2: Read “Summary” on p. 252)

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Find the slope and pick one of the points to find the equation in y = mx + b (See Warm Up #1 from 6.2 Notes)



7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 17. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19. 21. 23.

   

 

26.

