

### Notes: Function or Not a Function????

Determine which of the relations below are functions. Circle the correct answer.

#### Sets of Coordinates:

1)  $\{(-2, 7), (-1, 5), (0, 3), (1, 1), (2, 1)\}$

Function or Not a Function

2)  $\{(-7, 20), (3, 5), (0, 5), (-2, 0), (6, -4), (-6, -9), (4, 4)\}$

Function or Not a Function

3)  $\{(4, 8), (-3, -2), (9, 6), (2, -1), (-4, -5), (2, 7), (-8, 0)\}$

Function or Not a Function

#### Tables of Values:

| x | y   |
|---|-----|
| 0 | -19 |
| 1 | -12 |
| 2 | -4  |
| 3 | 3   |
| 4 | 13  |
| 5 | 27  |

Function or Not a Function

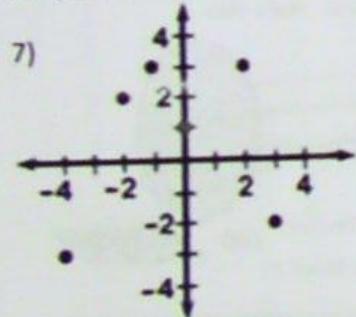
| x  | y  |
|----|----|
| -5 | 8  |
| -3 | 8  |
| -1 | -2 |
| 1  | -2 |
| 3  | 11 |
| 5  | 23 |

Function or Not a Function

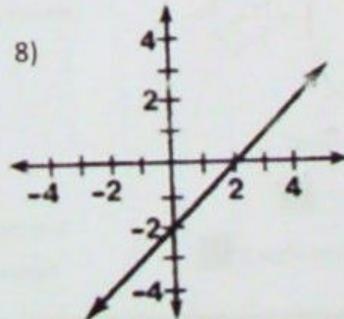
| x  | y   |
|----|-----|
| -2 | -7  |
| -2 | 5   |
| 0  | -16 |
| 2  | 0   |
| 2  | 6   |

Function or Not a Function

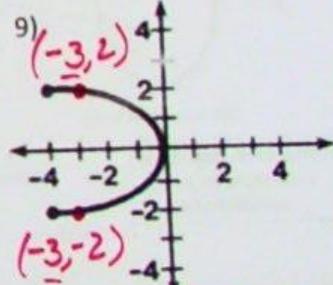
#### Graphs:



Function or Not a Function

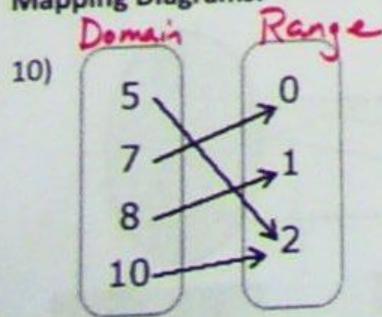


Function or Not a Function

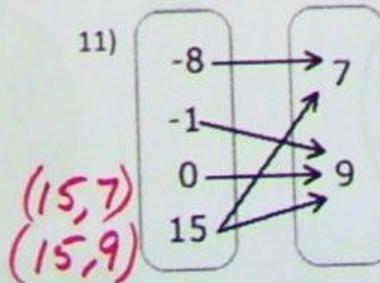


Function or Not a Function

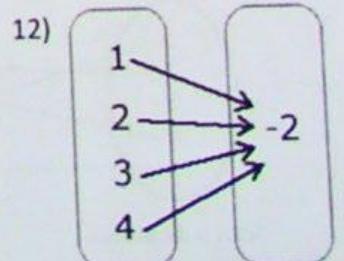
#### Mapping Diagrams:



Function or Not a Function



Function or Not a Function



Function or Not a Function

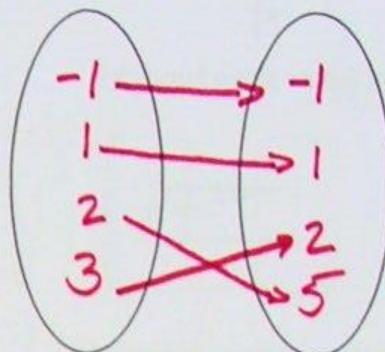
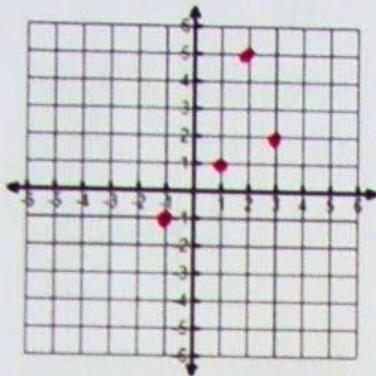
### More Notes: Representing Relations

Express the relation as a table, a graph, and a mapping. Then determine the domain and range. Determine whether each relation is a function.

*(Least to Greatest)*

13)  $\{(-1, -1), (1, 1), (2, 5), (3, 2)\}$

| x  | y  |
|----|----|
| -1 | -1 |
| 1  | 1  |
| 2  | 5  |
| 3  | 2  |



Domain:  $\{x\}'s\} \{-1, 2, 3, 5\}$

Range:  $\{y\}'s\} \{-1, 1, 2, 5\}$

Function? Yes

### Homework: Function or Not a Function???

Determine which of the relations below are functions. Circle the correct answer.

1)  $\{(1, -2), (-2, 0), (-1, 2), (1, 3)\}$  Function or Not a Function

2)  $\{(1, 1), (2, 2), (3, 5), (4, 10), (5, 15)\}$  Function or Not a Function

3)  $\left\{\left(17, \frac{15}{4}\right), \left(\frac{15}{4}, 17\right), \left(15, \frac{17}{4}\right), \left(\frac{17}{4}, 15\right)\right\}$  Function or Not a Function

| x  | y  |
|----|----|
| -5 | -2 |
| -4 | -1 |
| -3 | 0  |
| -4 | 1  |
| -5 | 2  |

Function or Not a Function

| x  | y  |
|----|----|
| -5 | -2 |
| -4 | -1 |
| -3 | 0  |
| -2 | -1 |
| -1 | -2 |

Function or Not a Function

| x  | y  |
|----|----|
| -5 | -2 |
| -4 | 2  |
| -3 | -2 |
| -2 | 2  |
| -1 | -2 |

Function or Not a Function

Homework is continued on the next page