

1-5
Words, Equations, Tables, and Graphs

Jun 6-1:21 PM

Three students are asked to choose their favorite pet.
The mapping below show some possible results.

Relation 1 is a function. Domain: Julie, Todd, Maria; Range: Dog, Fish, Cat. Julie → Dog, Todd → Fish, Maria → Cat.

Relation 2 is a function. Domain: Julie, Todd, Maria; Range: Dog. Julie → Dog, Todd → Dog, Maria → Dog.

Relation 3 is not a function. Domain: Julie, Todd, Maria; Range: Dog, Fish, Cat. Julie → Dog, Todd → Fish, Maria → Dog and Maria → Cat.

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What is a function?

Function: A function is a special relation in which each element of the domain is paired with exactly one element in the range.

What do we remember about:

Relation: any set of x's + y's

Domain: x's

Range: y's

Jun 8-3:24 PM

What's My Rule?
Double a number, then add three

Create a table to express this function. Use the rule to complete the table. State the domain and range. Do you see a pattern in the input and the output?

Input (x)	Rule:	Output (y)
4	$2x + 3$	11
20	$2x + 3$	43
16	$2x + 3$	35
32	$2x + 3$	67

Domain: {4, 20, 16, 32}

Range: {11, 35, 43, 67}

Jun 9-8:27 AM

What's My Rule?
Triple a number and subtract one

Create a table to express this function. Use the rule to complete the table. State the domain and range. Do you see a pattern in the input and the output?

Input (x)	Rule:	Output (y)
7	$3x - 1$	20
10		29
5		14
3		8

Domain: {7, 10, 5, 3}

Range: {20, 29, 14, 8}

Jun 9-8:33 AM

The table shows the time it should take a scuba diver to ascend to the surface from several depths to prevent sickness.

Depth (ft)	Time (s)
7.5	15
15	30
22.5	45
30	60

- Graph the data as ordered pairs (depth, time) and describe the relationship between the sets of numbers.
- If a scuba diver is at a depth of 45 feet, how many seconds should she take to ascend. How do you know?
- is the relation a function? Explain.
- For every 15 feet deeper a diver goes how much more time is needed?

Jun 9-8:36 AM

Copy and complete each function table.
Then state the domain and range of the function.

$y = 3x + 5$

Bob spent 5 more than 3 times what Anna spent.

Anna's Spending (\$)	Bob's Spending (\$)
Input (x)	Output (y)
2	11
4	17
6	23
8	29

Domain: {2, 4, 6, 8}

Range: {11, 17, 23, 29}

Jun 9-8:49 AM

Copy and complete each function table.
Then state the domain and range of the function.

$y = 6x$

The team scores 6 points for each touchdown.

Number of Touchdowns	Number of Points
Input (x)	Output (y)
1	
2	
5	
7	

Domain:

Range:

Jun 9-8:51 AM

Copy and complete each function table.
Then state the domain and range of the function.

$y = 8x$ $c = 8t$

Each ticket to the school musical costs \$8.

Number of Tickets	Total Cost (\$)
Input (x)	Output (y)
4	
7	
9	
12	

Domain:

Range:

Jun 9-8:52 AM

Copy and complete each function table.
Then state the domain and range of the function.

~~$y = 5x$~~ $4x - 5$

Casey has 5 less than 4 times as many baseball cards than Ben.

Ben's Cards	Casey's Cards
Input (x)	Output (y)
3	
7	
11	
15	

Domain:

Range:

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Homework:
Worksheet 1-5 (all)

Jun 9-9:01 AM

Jun 9-2:48 PM