

RATE OF CHANGE: TABLES

If you have a table showing a linear function, the rate of change will always be constant. Remember, you can find the rate of change of a linear function, or the slope, using this formula:

$$\text{Rate of change} = \frac{\text{change in } y}{\text{change in } x}$$

Let's try it! Find the rate of change of the linear function in the table below.

	x	y	
+1	1	2	+3
+2	2	5	+6
+8	8	23	+24
	12	35	

$$\frac{3}{1} = 3$$

You can calculate the rate of change by finding the change in y and change in x between two rows and dividing them.

$$\frac{6}{2} = 3$$

Since this is a linear function, the rate of change will always be the same, no matter which rows you choose. For this example, the rate of change is always 3.

$$\frac{24}{8} = 3$$

Practice it! Find the rate of change for the linear function in each table. Then circle the greatest rate of change in each row.

	x	y
1	25	
2	50	
3	75	
4	100	

Rate of change = _____

	x	y
10	25	
11	35	
12	45	
13	55	

Rate of change = _____

	x	y
5	25	
10	30	
15	35	
20	40	

Rate of change = _____

	x	y
2	8	
4	16	
6	24	
8	32	

Rate of change = _____

	x	y
8	10	
12	20	
16	30	
20	40	

Rate of change = _____

	x	y
-2	6	
-1	12	
0	18	
1	24	

Rate of change = _____

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Keep going! Find the rate of change for the linear function in each table. Then circle the greatest rate of change in each row.

x	y
0	15
3	17
6	19
9	21

Rate of change = _____

x	y
0	22
5	25
10	28
15	31

Rate of change = _____

x	y
0	18
8	23
16	28
24	33

Rate of change = _____

x	y
-2	70
2	82
6	94
8	100

Rate of change = _____

x	y
-5	-21
-4	-10
-3	1
-2	12

Rate of change = _____

x	y
3	95
7	115
9	125
10	130

Rate of change = _____

x	y
10	15
30	45
60	90
100	150

Rate of change = _____

x	y
-6	-31
-1	-21
1	-17
4	-11

Rate of change = _____

x	y
-1	-4
5	20
9	36
11	44

Rate of change = _____