

Practice Functions Test

1. Which relation below is a function?

A.

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

B.

x	y
0	2
1	3
0	4
2	5

C.

x	y
0	0
1	1
0	8
2	27

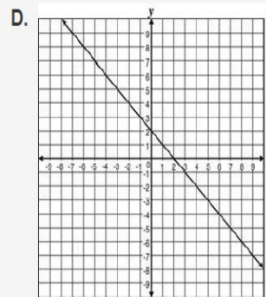
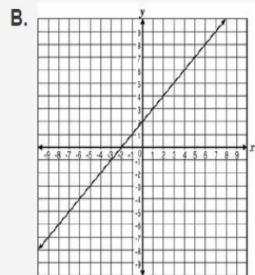
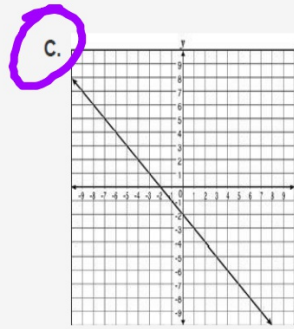
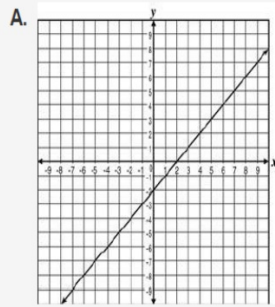
D.

x	y
0	0
1	-4
2	8
3	4

2. Which linear graph represents the values in the table below?

x	y
-2	0
0	-2
2	-4

match



3. Which chart represents a function?

A.

x	y
0	0
1	-1
1	1
4	2

C.

x	y
-2	2
2	-3
2	2
3	-3

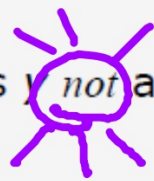
B

x	y
2	6
4	10
6	14
8	18

D.

x	y
3	2
3	-2
5	24
-5	24

4. In which table is y *not* a function of x ?



A.

x	y
-1	4
-2	7
-3	12
-4	19

B.

x	y
-5	11
-2	2
1	-7
5	19


C.

x	y
-1	1
-1	-1
0	0
4	2

D.

x	y
-4	13
-2	1
2	1
4	13

5. Which of the following equations represents a function?

~~A.~~ $x = 2$ 

~~C.~~ $y^2 = x^4 + 2$

~~B.~~ $y^2 = x + 2$

$y = \pm\sqrt{x+2}$



D. $y = x^2$



6. Which of the following relations is ~~not~~ a function?

A. $\{(0, 1), (1, 1), (2, 1), (3, 1)\}$

C. $\{(0, 0), (3, 4), (5, 6), (8, 9)\}$

B. $\{(0, 1), (0, 2), (0, 3), (0, 4)\}$

D. $\{(0, 0), (2, 2), (4, 4), (6, 6)\}$

7. Ronny's Carpet Cleaning uses the equation $y = 15x + \$22.50$ to calculate the total cost, y , to clean carpet for x number of hours. Juan's Carpet Cleaning uses the table below to calculate the total cost.

Juan's Carpet Cleaning

Number of Hours (x)	Total Cost (y)
1	\$38.50
3	\$65.50
6	\$106.00
8	\$133.00

$$\frac{27}{2} = 13.5$$

$$\begin{array}{r} 15.00 \\ - 13.50 \\ \hline \$1.50 \end{array}$$

Which company charges slope less per hour, and by how much?

A. Ronny's Carpet Cleaning charges \$2.50 less per hour.

B. Juan's Carpet Cleaning charges 1.50 less per hour.

C. Ronny's Carpet Cleaning charges \$1.50 less per hour.

D.

8. The table and graph below represent two different functions.

Function 1

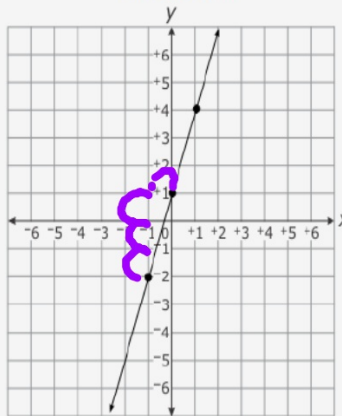
x	y
3	-12
1	-2
0	3

-26
 -15

$\downarrow +10$
 $\downarrow +5$

$m = \frac{10}{-2} = \boxed{-5}$

Function 2



$\frac{\Delta y}{\Delta x} = \frac{3}{1}$

$m = \boxed{3}$

What is the difference between the slopes of the two functions?

• 8?

A. 4

B. 3

C. 2

9. Jenna charges \$25 to babysit one child and \$5 for each additional child. Tyler's babysitting rates are shown in the table below.

$$y = 5x + 25$$

+15

Number of Children	Cost to Babysit
2	\$36
3	\$42
4	\$48

$$y = 6x + 24$$

How much more does Tyler charge to babysit one child than Jenna charges to babysit one child?

A. \$4

B. \$5

C. \$6

10. Art classes at Studio A cost \$15 per class, plus a one-time fee of \$20. The following functions represent the total cost, y , of taking x art classes at four other studios. Which function represents the studio with a cost per class greater than Studio A?

$$y = 15x + 20$$

A. $y = \underline{12}x + 25$

C. $y = \underline{15}x + 14$

B. $y = \underline{14}x + 11$

D. $y = \underline{18}x + 12$