

REPRESENTING A FUNCTION

Example

During one hour of walking, you burn about 257 Calories. The total number of Calories burned is a function of the number of hours you walked. How can you represent this situation in four different ways?

1) Ordered Pairs

 $(0,0)$ $(1,257)$ $(2,514)$ $(10,2570)$ **Example**

During one hour of walking, you burn about 257 Calories. The total number of Calories burned is a function of the number of hours you walked. How can you represent this situation in four different ways?

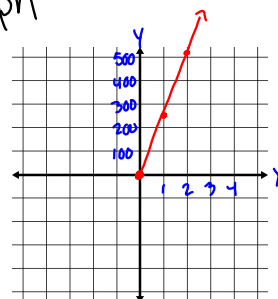
2) Table of Values

input(x)	output(y)
0	0
1	257
2	514
10	2570

Example

During one hour of walking, you burn about 257 Calories. The total number of Calories burned is a function of the number of hours you walked. How can you represent this situation in four different ways?

3) Graph



Example

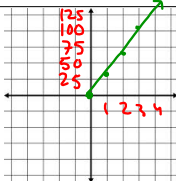
During one hour of walking, you burn about 257 Calories. The total number of Calories burned is a function of the number of hours you walked. How can you represent this situation in four different ways?

4) Rule

$$y = 257x$$

Got It?

A freight train travels at 35 miles per hour. How can you represent this situation in four different ways?

<p>(2, 70) (3, 105) (6, 210)</p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>35</td> </tr> <tr> <td>2</td> <td>70</td> </tr> <tr> <td>3</td> <td>105</td> </tr> <tr> <td>4</td> <td>140</td> </tr> </tbody> </table>	x	y	0	0	1	35	2	70	3	105	4	140
x	y												
0	0												
1	35												
2	70												
3	105												
4	140												
	<p style="color: red; font-size: 1.5em;">$y = 35x$</p>												

Example

Circle the table that could be a view of the function represented by the graph.

A.

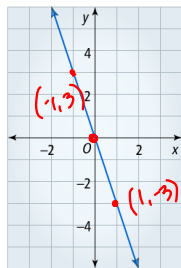
x	y
0	0
1	3
2	6
3	9

B.

x	y
0	0
1	-3
2	-6
3	-9

C.

x	y
-3	6
-2	2
-1	1
0	0



Got It?

Which equation could be a view of the function represented by the table?

- ~~i. $y = -2x$~~ $y = -2(0)$ $y = 0$
- ii. $y = x - 2$ $y = 0 - 2$ $y = -2$
- ~~iii. $y = -x + 2$~~ $y = 0 + 2$ $y = 2$

x	y
-4	-6
-2	-4
<u>0</u>	-2
2	0
4	2