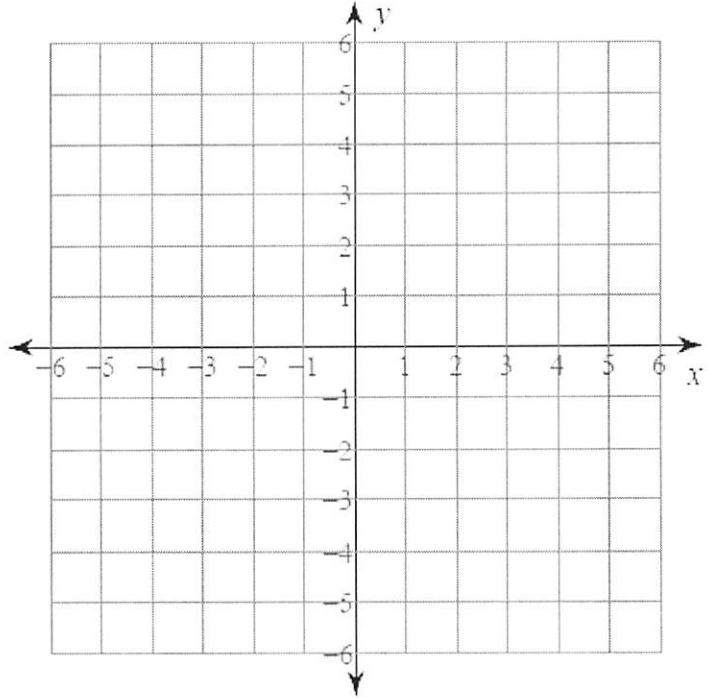


**Math 8**  
**Unit 3 Introduction to Functions Mini Quiz 1**

Name \_\_\_\_\_  
 Section \_\_\_\_\_

Complete the table and graph the equation  $-3x + 2 = y$ .

Input ( $x$ )	Output ( $y$ )

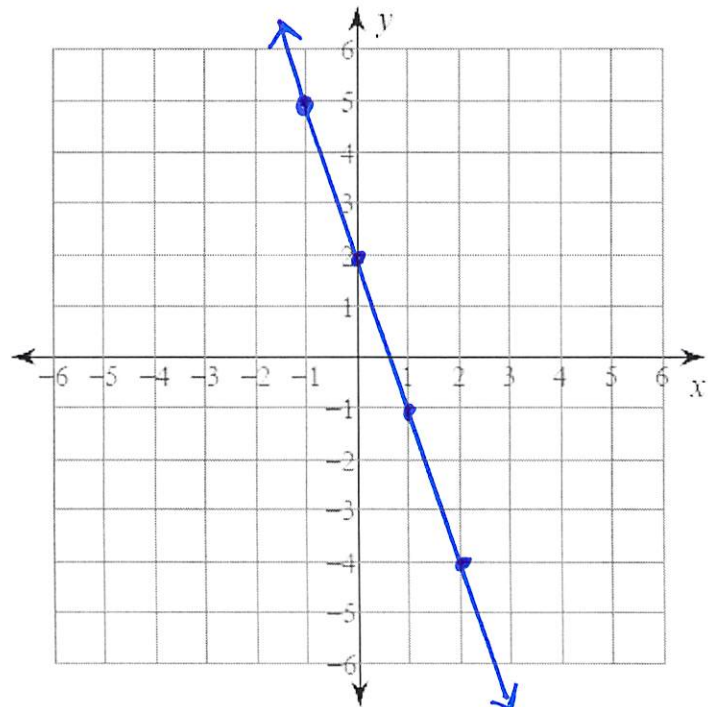


**Math 8**  
**Unit 3 Introduction to Functions Mini Quiz 1**

Name \_\_\_\_\_  
 Section \_\_\_\_\_

Complete the table and graph the equation  $-3x + 2 = y$ .

Input ( $x$ )	Output ( $y$ )
-2	8
-1	5
0	2
1	-1
2	-4
3	-7
4	-10



Math 8  
Unit 3 Introduction to Functions Mini Quiz 2

Name \_\_\_\_\_  
Section \_\_\_\_\_

Is the relation a function? Use a mapping diagram to explain your reasoning.

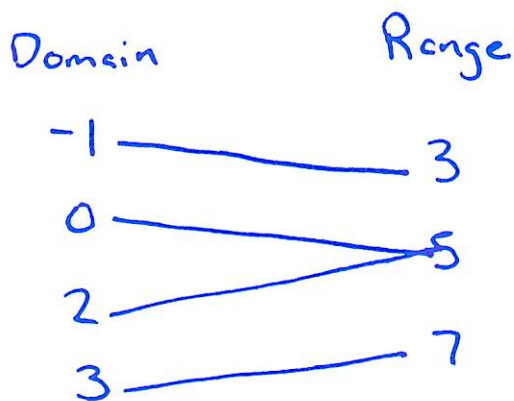
$$\{(-1, 3), (0, 5), (2, 5), (3, 7)\}$$

Math 8  
Unit 3 Introduction to Functions Mini Quiz 2

Name \_\_\_\_\_  
Section \_\_\_\_\_

Is the relation a function? Use a mapping diagram to explain your reasoning.

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



Yes, every domain value has exactly one range value mapped to it.

**Math 8**  
**Unit 3 Introduction to Functions Mini Quiz 3**

Name \_\_\_\_\_  
Section \_\_\_\_\_

Make a table of values for the function  $h(x) = -4x + 1$ . Then state the domain and range of the function.

$x$	$h(x)$
-2	
-1	
0	
1	
2	

**Math 8**  
**Unit 3 Introduction to Functions Mini Quiz 3**

Name \_\_\_\_\_  
Section \_\_\_\_\_

Make a table of values for the function  $h(x) = -4x + 1$ . Then state the domain and range of the function.

$x$	$h(x)$
-2	9
-1	5
0	1
1	-3
2	-7

Domain:  $\{-2, -1, 0, 1, 2\}$

Range:  $\{-7, -3, 1, 5, 9\}$

Math 8  
Unit 3 Introduction to Functions Mini Quiz 4

Name \_\_\_\_\_  
Section \_\_\_\_\_

Given  $h(x) = \frac{x}{5} - 2$ , find  $h(-10)$ ,  $h(5)$  and  $h(25)$ .

Math 8  
Unit 3 Introduction to Functions Mini Quiz 4

Name \_\_\_\_\_  
Section \_\_\_\_\_

Given  $h(x) = \frac{x}{5} - 2$ , find  $h(-10)$ ,  $h(5)$  and  $h(25)$ .

$$\begin{aligned} h(-10) &= \frac{-10}{5} - 2 & h(5) &= \frac{5}{5} - 2 & h(25) &= \frac{25}{5} - 2 \\ &= -2 - 2 & &= 1 - 2 & &= 5 - 2 \\ h(-10) &= -4 & h(5) &= -1 & h(25) &= 3 \end{aligned}$$

Math 8  
Unit 3 Introduction to Functions Mini Quiz 5

Name \_\_\_\_\_  
Section \_\_\_\_\_

Does the relation defined by the table represent a linear function? Explain.

Input	Output
-10	8
-5	5
0	2
5	-1
10	-4

Math 8  
Unit 3 Introduction to Functions Mini Quiz 5

Name \_\_\_\_\_  
Section \_\_\_\_\_

Does the relation defined by the table represent a linear function? Explain.

Input	Output
-10	8
-5	5
0	2
5	-1
10	-4

Handwritten annotations: On the left side of the table, four blue brackets indicate an increase of +5 in the input for each row. On the right side, four blue brackets indicate a decrease of -3 in the output for each row.

Yes this is a linear function because the table has a constant rate of change equal to  $-\frac{3}{5}$

**Math 8**  
**Unit 3 Introduction to Functions Mini Quiz 6**

Name \_\_\_\_\_  
 Section \_\_\_\_\_

A student is completing a homework assignment. Each minute, the student records the number of problems left to complete. The table shows the data.

Homework Assignment						
Time (minutes)	0	1	2	3	4	5
Problems Left	23	20	17	14	11	8

- a) What is the rate of change of this linear function?
- b) What does the rate of change represent in this situation?

**Math 8**  
**Unit 3 Introduction to Functions Mini Quiz 6**

Name \_\_\_\_\_  
 Section \_\_\_\_\_

A student is completing a homework assignment. Each minute, the student records the number of problems left to complete. The table shows the data.

Homework Assignment						
x Time (minutes)	0	1	2	3	4	5
y Problems Left	23	20	17	14	11	8

Handwritten annotations: Above the table, blue brackets with '+1' are drawn between each minute column. Below the table, blue brackets with '-3' are drawn between each problem count column.

- a) What is the rate of change of this linear function?

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

- b) What does the rate of change represent in this situation?

Every minute the student has  
 3 fewer problems left

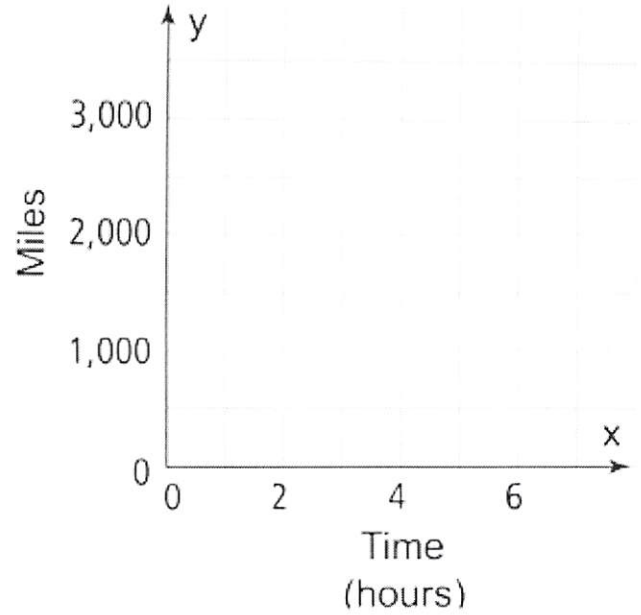
Math 8

Unit 3 Introduction to Functions Mini Quiz 7

Name \_\_\_\_\_  
Section \_\_\_\_\_

A plane is traveling at 300 miles per hour. Complete the table and use the points to graph the miles flown. Write the function rule in the bottom highlighted box.

Time (hours)	Miles	(x, y)
1		
2		
3		
4		
5		
<i>h</i>		



Math 8

Unit 3 Introduction to Functions Mini Quiz 7

Name \_\_\_\_\_  
Section \_\_\_\_\_

A plane is traveling at 300 miles per hour. Complete the table and use the points to graph the miles flown. Write the function rule in the bottom highlighted box.

Time (hours)	Miles	(x, y)
1	300	(1, 300)
2	600	(2, 600)
3	900	(3, 900)
4	1200	(4, 1200)
5	1500	(5, 1500)
<i>h</i>	$h \cdot 300 = m$	

