1.2 Proportional Tables

Write your questions here!

PACMAN RACE

Pacman traveled 18 feet every 6 seconds.

Pacman's distance traveled is proportional to time.

Time (*seconds*)	Distance (*feet*)
0	
1	
2	
3	
4	
5	
6	

Constant of Proportionality

$k = $ _____

Are these tables proportional?

x	*y*
3	12
5	20
8	32
10	40

Time (*hours*)	Snowfall (*inches*)
2	8
2.5	10
4	12
6	18

x	0	2	4
y	0	5	10

These tables are proportional. Find *k* and the missing values.

x	*y*
3	12
6	24
9	
	40

Gas (*gallons*)	Distance (*miles*)
	36
2.5	
5	90
6	108

SUMMARY:

Now, summarize your notes here!

Use the verbal statement to fill in the table. Find the constant of proportionality, k.

1. Teri pays 4 dollars for 2 gallons of milk.

Milk (gallons)	Cost (dollars)
0	
1	
2	
3	
4	

$k =$ _____

2. Patrick eats 15 crabby patties every 3 hours.

Time (hours)	Patties (#)
0	
1	
2	
3	
4	

$k =$ _____

In each table, determine if y is proportional to x. Explain why or why not.

3.

x	y
3	12
5	20
8	32
10	40

Proportional?   YES   or   NO

Explanation:

4.

x	y
4	2
6	3
10	5

Proportional?   YES   or   NO

Explanation:

5.

x	y
1	4
4	8
6	24
9	18

Proportional?   YES   or   NO

Explanation:

6.

x	12	18	15	9
y	4	6	5	3

Proportional?   YES   or   NO

Explanation:

7.

x	0	2	4
y	0	5	10

Proportional?   YES   or   NO

Explanation:

8.

x	0	1	2	3
y	3	5	7	9

Proportional?   YES   or   NO

Explanation:

Use the tables to answer the following.

9.

Candy (pounds)	Cost (dollars)
6	12
3	5
7	14
2	4

Is the cost proportional to the amount of candy?

Why or why not?

10.

Time (hours)	Snowfall (inches)
2	8
2.5	10
4	12
6	18

Is the snowfall proportional to the time?

Why or why not?

11.

Coffee (ounces)	6	8	14
Price (dollars)	2.10	2.80	4.90

Is the price proportional to the amount of coffee?

Why or why not?

In the following tables _y_ is proportional to _x_. Fill in the table and state the constant of proportionality.

12.

x	y
2	8
5	20
	40
12	

$k =$ _____

13.

x	y
8	4
6	3
	5
14	

$k =$ _____

14.

x	20	4	8	
y	15		6	9

$k =$ _____

Fill in the table and answer the questions.

15. The number of teachers at Generic Middle School is proportional to the number of students.

   a. How many students are there for one teacher?

   b. If there are 14 teachers at Generic Middle School, how many students are there?

Teachers	Students
2	
	80
4	64
9	

1. Determine if y is proportional to x. Explain why or why not.

x	4	12	28	36
y	1	4	7	9

Proportional?   YES   or   NO

Explanation:

2. In the table y is proportional to x. Fill in the table and state the constant of proportionality.

x	y
4	12
2	
6	18
	24

$k =$ _____

3. The amount of sugar in lemonade is proportional to the number of glasses.

   a. Find the constant of proportionality. What does it mean in this situation?

   b. Fill in the missing values on the table.

   c. If there are 177 grams of sugar, how many glasses are there?

Glasses (#)	Sugar (grams)
2	
	60
4	48
9	
5.5	

EXIT TICKET –

Neptune loves to swim. He swims 9 laps in 2 minutes.

Which table represents Neptune?

A

Time (minutes)	Laps (#)
0	0
9	2
18	4
27	6

B

Time (minutes)	Laps (#)
0	4.5
2	9
4	18
6	27

C

Time (minutes)	Laps (#)
0	0
2	9
4	18
6	27

D

Time (minutes)	Laps (#)
4.5	0
9	2
18	4
27	6