

I can connect a ratio and a rate to its table, graph, or equation.

Relating Ratios to Tables and Graphs

Example

A father and his young toddler are walking along the sidewalk. For every 3 steps the father takes, the son takes 5 steps just to keep up. Build a ratio table by adding rows of equivalent ratios.

Number of Steps the Father Takes	Number of Steps the Son Takes
3	5

Got It?

Assume each of the following represents a table of equivalent ratios. Fill in the missing values.

1.

	22
12	
16	44
	55
24	66

2.

	14
15	21
25	35
30	

3.

	34
	51
12	
15	85
18	102

Got It?

The following tables were made incorrectly. Find the mistake that was made and create the correct ratio table. Assume the first ratio in each table is correct.

a.

Hours	Pay in dollars
3	24
5	40
7	52
9	72

Hours	Pay in dollars

b.

Blue	Yellow
1	5
4	8
7	13
10	16

Blue	Yellow

Got It?

On the news broadcast, a chef from a local Italian restaurant demonstrated how he makes fresh pasta daily for his restaurant. The recipe for his pasta is below.

3 eggs, beaten

1 teaspoon of salt

2 cups of flour

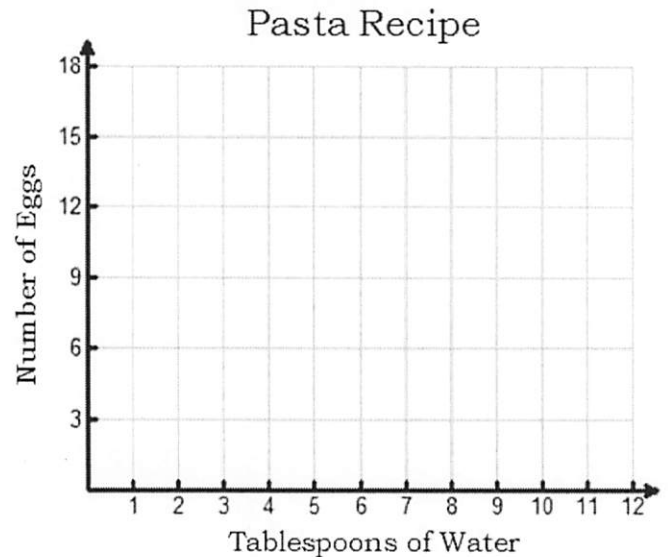
2 tablespoons of water

2 tablespoons vegetable oil

Determine the ratio of the number of tablespoons of water to the number of eggs.

Build the table below with equivalent ratios. Then graph the ordered pair to represent the relationship of the number of tablespoons of water to the number of eggs.

Tablespoons of Water	Number of Eggs	Ordered Pair



How many eggs would be needed if the recipe called for 16 tablespoons of water?

How many tablespoons of water will be needed if the recipe called for 36 eggs?

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Number of Steps the Father Takes	Number of Steps the Son Takes
3	5
6	10
9	15
12	20
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Blue	Yellow
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On the news broadcast, a chef from a local Italian restaurant demonstrated how he makes fresh pasta daily for his restaurant. The recipe for his pasta is below.

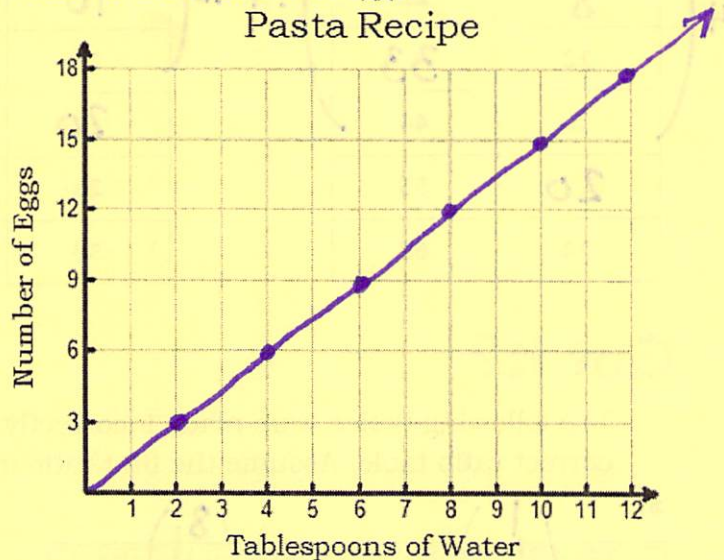
- 3 eggs, beaten
- 1 teaspoon of salt
- 2 cups of flour
- 2 tablespoons of water
- 2 tablespoons vegetable oil

Determine the ratio of the number of tablespoons of water to the number of eggs.

$$2 : 3$$

Build the table below with equivalent ratios. Then graph the ordered pair to represent the relationship of the number of tablespoons of water to the number of eggs.

Tablespoons of Water	Number of Eggs	Ordered Pair
2	3	(2, 3)
4	6	(4, 6)
6	9	(6, 9)
8	12	(8, 12)
10	15	(10, 15)
12	18	(12, 18)



How many eggs would be needed if the recipe called for 16 tablespoons of water?

$$\times 8 \left(\begin{array}{l} 2 : 3 \\ \downarrow \\ 16 : 24 \end{array} \right) \times 8$$

24 eggs

How many tablespoons of water will be needed if the recipe called for 36 eggs?

$$\times 12 \left(\begin{array}{l} 2 : 3 \\ \downarrow \\ 24 : 36 \end{array} \right) \times 12$$

24 tablespoons of water