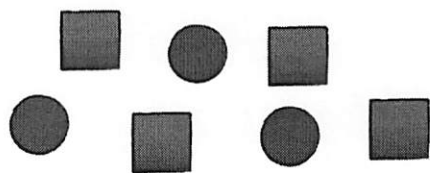


Lesson 10-1: Ratios

A **ratio** is a relationship for which every x units of one quantity there are y units of another quantity. The quantities x and y are the **terms of the ratio**.



You use ratios to make comparisons. The ratio of the number of squares to the number of circles is 4 to 3. You can also write this ratio as 4 : 3.

Example

You toss a coin 12 times and get 7 heads. Write the ratio of the number of heads to the number of tails.

Got It?

You have read 20 books from a series of 23 books. Write the ratio of the number of books you have *not* read to the number of books you have read.

The table shows the results from the sixth grade election for class president. Determine whether each statement is *true* or *false*.

Votes for Class President

Student	Number of Votes
Devin	20
Jordyn	10
Micah	5

True

False

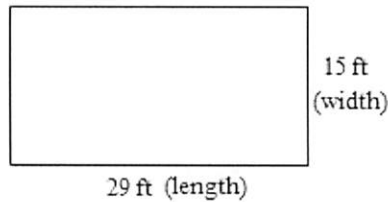
- a. The ratio of votes for Jordyn to total votes is 10 : 35.
- b. The ratio of votes for Devin to votes for Jordyn is 10 to 20.
- c. The ratio of votes for Micah to total votes is 5 : 30.
- d. The ratio of votes for Devin to votes for Micah is 20 : 5.
- e. The ratio of total votes to votes for Devin is 35 to 20.

Got It?

In a class, 15 students are wearing sneakers, 10 students are wearing boots, and 5 students are wearing sandals. Write the ratio of the number of students wearing sneakers to the total number of students.

What is the ratio of the width of the playing surface to its perimeter?

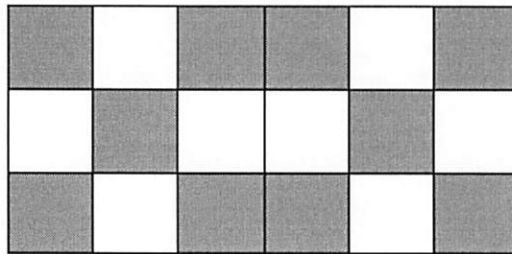
- A. 88:15
- B. 15:29
- C. 29:88
- D. 15:88



A Sample NYS Grade 6 Math Test Question

3

The new floor in the school cafeteria is going to be constructed of square tiles that are either gray or white and in the pattern that appears below:



Part A: What is the ratio of the grey tiles to the white tiles?

Answer: _____

Part B: What is the ratio of the white tiles to the total number of tiles in the pattern?

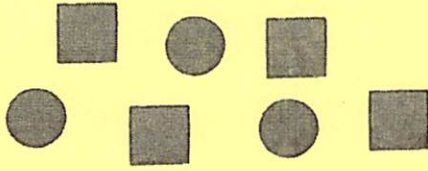
Answer: _____

Part C: If the total cost of the white tiles is \$12, what is the unit price per white tile?

Answer: _____

Lesson 10-1: Ratios

A **ratio** is a relationship for which every x units of one quantity there are y units of another quantity. The quantities x and y are the **terms of the ratio**.



You use ratios to make comparisons. The ratio of the number of squares to the number of circles is 4 to 3. You can also write this ratio as $4 : 3$.

Example

You toss a coin 12 times and get 7 heads. Write the ratio of the number of heads to the number of tails.

7 : 5

7 heads
5 tails

Got It?

You have read 20 books from a series of 23 books. Write the ratio of the number of books you have not read to the number of books you have read.

3 : 20

The table shows the results from the sixth grade election for class president. Determine whether each statement is *true* or *false*.

Votes for Class President

Student	Number of Votes
Devin	20
Jordyn	10
Micah	5

True

False

a. The ratio of votes for Jordyn to total votes is 10 : 35.

True

b. The ratio of votes for Devin to votes for Jordyn is 10 to 20.

False

c. The ratio of votes for Micah to total votes is 5 : 30.

False

d. The ratio of votes for Devin to votes for Micah is 20 : 5.

True

e. The ratio of total votes to votes for Devin is 35 to 20.

True

Got It?

In a class, 15 students are wearing sneakers, 10 students are wearing boots, and 5 students are wearing sandals. Write the ratio of the number of students wearing sneakers to the total number of students.

$$15 : 30$$

What is the ratio of the width of the playing surface to its perimeter?

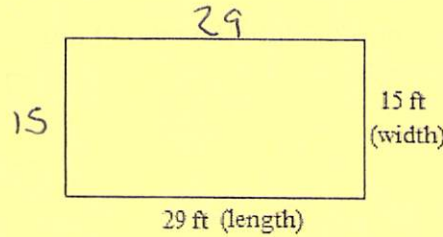
A. 88:15

B. 15:29

C. 29:88

D. 15:88

$$15 : 88$$



Perimeter

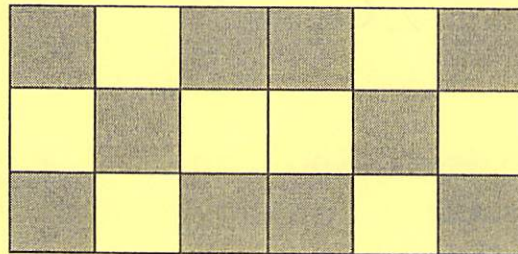
$$15 + 29 + 15 + 29$$

$$88$$

A Sample NYS Grade 6 Math Test Question

3

The new floor in the school cafeteria is going to be constructed of square tiles that are either gray or white and in the pattern that appears below:



Part A: What is the ratio of the grey tiles to the white tiles?

Answer: 10 : 8

Part B: What is the ratio of the white tiles to the total number of tiles in the pattern?

Answer: 8 : 18

Part C: If the total cost of the white tiles is \$12, what is the unit price per white tile?

Answer: \$ 1.50 per tile

$$\frac{12}{8} = \frac{1.50}{1}$$