

Equivalent Ratios/Ratio Tables Quiz Study Guide

A **ratio table** is a table with columns filled with pairs of numbers that have the same ratio.

Suppose there are exactly 3 boys for every 5 students. The **ratio** is $\frac{3}{5}$. Multiplying the original ratio by an **equivalent form of one** produces an **equivalent ratio**. This can be done many times, producing a table of fractions that share the same original ratio.

Number of Boys	3	6	9	12
Number of Students	5	10	15	20

$\xrightarrow{\times 2}$ $\xrightarrow{\times 3}$ $\xrightarrow{\times 4}$
 $\xleftarrow{\times 2}$ $\xleftarrow{\times 3}$ $\xleftarrow{\times 4}$

The table is completed by multiplying by equivalent forms of one.

$$\frac{3 \times 2}{5 \times 2} = \frac{6}{10}$$

$$\frac{3 \times 3}{5 \times 3} = \frac{9}{15}$$

$$\frac{3 \times 4}{5 \times 4} = \frac{12}{20}$$

Directions: For #1-3 complete the table to answer the questions.

- Fill in the table to answer the following problem. You can make 30 cookies with 1 cup of flour. How many cookies could you make with 4 cups of flour? How many cups of flour do you need to make 90 cookies?

Cups of Flour	1		
Number of Cookies	30		90

- Fill in the table to answer the following problem. 6 books cost \$10. How many books can you buy with \$5? How much would it cost to buy 9 books?

Number of Books		6	9
Cost in Dollars	5	10	

3. **Fill in the table to answer the following problem.** Jane is having a pizza party. If two large pizzas serve 9 people, how many pizzas should she order to serve 27 guests at the party?

Pizzas	2	<input type="text"/>
Guests	9	27

Directions: For #4-8, determine if each pair of ratios or rates are equivalent. Use unit rate or equivalent fractions.

4. 18 vocabulary words learned in 2 hours; 27 vocabulary words learned in 3 hours

5. \$15 for 5 pairs of socks; \$25 for 10 pairs of socks

6. 20 out of 45 students attended the concert; 12 out of 25 students attended the concert

7. 78 correct answers out of 100 test questions; 39 correct answers out of 50 test questions

8. 15 minutes to drive 21 miles; 25 minutes to drive 35 miles