

Grade 6 - Ratios and Ratio Language - Quiz

Common Core 6.RP.A.1 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This **ratios quiz** for 6th Grade covers ratios and ratio language (Common Core 6.RP.A.1), with a free PDF to print.

This quiz has 10 multiple-choice questions about ratios and equivalent ratios (Common Core 6.RP.A.1). Pick one answer for each question, then read the explanation to learn from any miss.

Grade 6 · Common Core State Standards: **6.RP.A.1**

Ratios quiz: 10 questions

Questions

Question 1

What is the ratio of triangles to circles?

Triangles 

Circles 

Shapes.

- A. $\frac{5}{3}$
- B. $\frac{3}{5}$
- C. $\frac{5}{8}$
- D. $\frac{3}{8}$

Question 2

Which ratio is equivalent to $\frac{4}{6}$?

- A. $\frac{4}{3}$
- B. $\frac{6}{4}$
- C. $\frac{8}{10}$
- D. $\frac{2}{3}$

Question 3

A bag has 7 red and 9 blue marbles. What is the ratio of red marbles to all marbles?

- A. $\frac{7}{9}$

- B. $\frac{9}{16}$
- C. $\frac{7}{2}$
- D. $\frac{7}{16}$

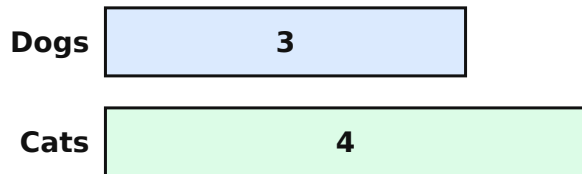
Question 4

Which is the simplest form of $\frac{16}{40}$?

- A. $\frac{4}{10}$
- B. $\frac{2}{5}$
- C. $\frac{8}{20}$
- D. $\frac{1}{2}$

Question 5

The ratio of dogs to cats at a shelter is 3 to 4. There are 28 animals in all. How many dogs are there?



Dogs to cats is 3 to 4.

- A. 9
- B. 16
- C. 12
- D. 21

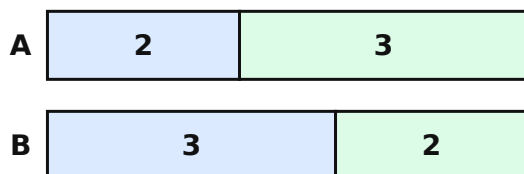
Question 6

A recipe uses 2 cups of rice for every 5 cups of water. How many cups of water go with 10 cups of rice?

- A. 4
- B. 25
- C. 12
- D. 17

Question 7

Which tape diagram matches the ratio 2 to 3?



Two tape diagrams.

- A. B: the first bar has 3 parts and the second has 2
- B. A: the first bar has 2 parts and the second has 3
- C. Neither one
- D. Both of them

Question 8

Which pair of ratios is equivalent?

- A. $\frac{3}{5}$ and $\frac{12}{20}$
- B. $\frac{3}{5}$ and $\frac{6}{8}$
- C. $\frac{2}{3}$ and $\frac{4}{5}$
- D. $\frac{1}{4}$ and $\frac{2}{6}$

Question 9

A team won 6 games and lost 4. What is the ratio of wins to losses in simplest form?

- A. $\frac{3}{2}$
- B. $\frac{6}{4}$
- C. $\frac{2}{3}$
- D. $\frac{3}{5}$

Question 10

Mei mixes 3 cups of blue paint with 2 cups of yellow paint. How much blue paint does she need for 10 cups of yellow paint?

- A. 12 cups
- B. 11 cups
- C. 15 cups
- D. 20 cups

Answers

1. **A** – Triangles come first, so $(5:3)$. Reversing the order gives $(3:5)$, which is a different ratio.
2. **D** – Divide both numbers by 2 to get $(2:3)$. Adding 4 to both numbers $(8:10)$ does not keep the ratio.
3. **D** – This is part to whole: 7 red out of $(7 + 9 = 16)$ marbles. The ratio $(7:9)$ is part to part.
4. **B** – The GCF of 16 and 40 is 8, so $(16:40) = (2:5)$. The others can still be simplified or are not equivalent.
5. **C** – Each group has $(3 + 4 = 7)$ animals, and $(28 \div 7 = 4)$ groups, so $(3 \times 4 = 12)$ dogs. A common mistake is using $(28 \div 4)$.
6. **B** – $(10 \div 2 = 5)$ batches, so $(5 \times 5 = 25)$ cups of water. Adding 8 to both numbers (17) is a common mistake.
7. **B** – In the ratio 2 to 3 the first quantity has 2 parts and the second has 3.
8. **A** – $(3:5)$ multiplied by 4 gives $(12:20)$. In $(6:8)$ only the first number doubled and the second added 3.
9. **A** – $(6:4)$ simplifies to $(3:2)$. The order wins to losses must stay the same.
10. **C** – $(10 \div 2 = 5)$, and $(3 \times 5 = 15)$ cups. Adding 8 to the 3 (11) changes the ratio.

Remember

Remember

- A ratio compares two quantities and can be written $a:b$, a to b , or a/b .
- Order matters: the first number matches the first quantity named.
- Ratios can compare part to part or part to whole.
- Multiply or divide both numbers by the same nonzero number to make equivalent ratios.
- A tape diagram splits a total into equal parts to solve ratio problems.

How to use this ratios quiz

Answer each question, read the explanation that appears, and keep track of your score. A score of 8 out of 10 or more means you are ready for the test.

Download the ratios quiz as a PDF with the button below and keep it with your notes.

Download the ratios quiz as a PDF with the button below and keep it with your notes.