



Ratio and Proportions Questions with Detailed Solutions PDF

Ratio and Proportion questions are a major type of questions asked in competitive exams. These questions carry a weightage of 1-2 questions (2-4 marks) in SSC exams and 2-3 questions in bank exams. To get a good rank in competitive exams, you should have the concepts of Ratio and Proportion on your tips, as its concept is used in every third question of the quantitative aptitude section.

Here are some tips for solving Ratio and Proportion questions: Understand the basic concepts of ratio and proportion, Practice solving a variety of ratio and proportion questions, Use shortcuts and formulas. Once your basics are clear, practice will make you perfect!

So, we have attached 10 questions of Ratio and Proportion for you to practice with. You should aim to solve these questions in less than half a minute for each.

Practice Questions on Ratio and Proportion

You can also download the Ratio and Proportion questions and answers pdf. Just click on the **Download PDF** button. So let's start with the very first question.

Q:1 If one number is 16% more than 1397 and another number is 32% more than 2794. Find the ratio of the first number to the second number.

1. 33 : 29
2. 29 : 33
3. 29 : 66
4. 69 : 32

(**Difficulty: 4, Estimated Time: 15 Seconds**) This was an easy one to start!

Q:2 In what ratio should two kinds of sugar at Rs 115 and Rs 128 per kg be mixed so that by selling at Rs 150 per kg, 20% may be gained?

1. 10 : 7
2. 4 : 9
3. 3 : 10
4. 4 : 5

(**Difficulty: 2, Estimated Time: 15 Seconds**) This was also an simple one. Did you guess it right?

Q:3 A person distributed his funds among his two sons A, B, and his wife. The ratio of amounts given to A and B is 5 : 6 and the ratio of the amount given to son A and his wife is 2 : 4. If the total amount the person had is Rs.2310. What is the amount given to his wife?

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1. Rs.988
2. Rs.1250
3. Rs. 1055
4. Rs.1100

(Difficulty: 3, Estimated Time: 20 Seconds) It is not an easy one but I think now you're prepared for it. Did you guess it right?

Q:4 What is the fourth proportion of 17, 21 and 527?

1. 601
2. 611
3. 631
4. 651

(Difficulty: 2, Estimated Time: 15 Seconds) A piece of cake, isn't it?

Q:5 The ratio of wages of A : B is 3 : 8 & the ratio of wages of B : C is 8 : 3, find the ratio of wages of A : C.

1. 56 : 15
2. 1 : 1
3. 8 : 15
4. 15 : 40

(Difficulty: 3, Estimated Time: 20 Seconds) We're halfway through. Have you got all your questions correct so far?

Q:6 What is the third proportion of 19, 57?

1. 364
2. 171
3. 841
4. 428

(Difficulty: 4, Estimated Time: 15 Seconds) Another easy one! Let's score more...

Q:7 Two numbers are respectively 42% and 66% more than a third number. Find the ratio of the first two numbers.

1. 71 : 83

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2. 57 : 64

3. 62 : 77

4. 79 : 91

(**Difficulty:** 4, **Estimated Time:** 25 Seconds) This was also a tricky one, but I think now you're prepared for it.

Q:8 A invested Rs.2000 per month for 6 months and B invested Rs.1500 for the next 9 months what is the ratio of profits of B and A?

1. 10 : 9

2. 9 : 8

3. 4 : 5

4. 1 : 2

(**Difficulty:** 2, **Estimated Time:** 15 Seconds) You might have wrapped it up in 10 seconds!

Q:9 A bag contains sweets of two types – red and green. The ratio of the number of red sweets and green sweets is 11:13. If the number of green sweets is 1599, then what is the total number of red sweets in the bag?

1. 1153

2. 1257

3. 1353

4. 1403

(**Difficulty:** 2, **Estimated Time:** 25 Seconds) This was a hard nut to crack, be prepared for such questions in exam!

Q:10 A boy bought black pen & red pen in the ratio of 3 : 2. Had he bought three black pens less than before, the ratio would be 6 : 5. How many red pens did he buy?

1. 12

2. 8

3. 10

4. 6

(**Difficulty:** 2, **Estimated Time:** 15 Seconds) Did you guess them all correctly?

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Answer Key

Let's check out your score in this test.

1. (3)	2. (3)	3. (4)	4. (4)	5. (2)
6. (2)	7. (1)	8. (2)	9. (3)	10. (3)

Comment below your score, considering each question has 1 mark only. If you scored 8 to 10, congratulations! You are one step closer to selection. If you have scored 5 to 8 marks, then you are doing well, keep it up. If you have scored less than 5 marks then you need to work a little harder on this subject. But don't worry, we are here to help you master the subject.

Let's check the answers and solutions and try to find out what went wrong.

Answers and Solutions

Q:1 The correct option is **option 3** i.e. **29 : 66**

According to the question,

First number increased by 16% = 1.16×1397

Second number increased by 32% = 1.32×2794

Required ratio = $(1.16 \times 1397) : (1.32 \times 2794)$

= $(1.16 \times 1397) : (1.32 \times 2 \times 1397)$

= $(1.16) : (1.32 \times 2)$

= 29 : 66

Q:2 The correct answer is **option 3** i.e. **3 : 10**

Selling price = 150 per kg

Which is at 20% gain

So, CP = $(150/120)100 = 125$

Now, For required ratio using alligation,

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$$128 - 125 = 3$$

$$\text{and } 125 - 115 = 10$$

Hence, Ratio must be **3 : 10**

Q:3 The correct answer is **option 4** i.e. **Rs.1100**.

Let the amounts given to sons A, B, and his wife be a, b, and c.

$$\Rightarrow a : b = 5 : 6$$

$$\Rightarrow a : c = 2 : 4$$

$$\Rightarrow a : b : c = 10 : 12 : 20$$

$$\text{Total amount} \Rightarrow (10 + 12 + 20) \text{ units} \rightarrow 2310$$

$$\Rightarrow 1 \text{ unit} \rightarrow 55$$

$$\Rightarrow 20 \text{ units} \rightarrow 1100$$

Q:4 The correct answer is **Option 4** i.e. **651**.

For, $a : b :: c : d$

Fourth proportional of a, b and c (i.e. d) = bc/a

$$\text{Fourth proportional of } 17, 21, 527 = 21 \times 527/17 = 651$$

Q:5 The correct answer is **option 2** i.e. **1 : 1**.

Let the wages of A and B be $3x$ and $8x$ respectively.

$$\Rightarrow A : B = 3 : 8$$

The ratio of B to C is $8 : 3$

So the ratio of wages of A to C will be $1 : 1$.

Q:6 The correct answer is **option 2** i.e. **171**

a, b, c are three numbers in proportion such that,

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$$\Rightarrow a/b = b/c$$

Where c is the third proportional.

$$\Rightarrow c = b^2/a$$

$$\Rightarrow c = (57 \times 57)/19$$

$$\Rightarrow c = 171$$

Q:7 The correct answer is **Option 1** i.e. **71 : 83**.

Let the third number be x

$$\text{First number} = 142\% \text{ of } x = 142x/100$$

$$\text{Second number} = 160\% \text{ of } x = 166x/100$$

$$\text{Required ratio} = 142x/100 : 166x/100 = 71x : 83x = 71 : 83$$

Q:8 The correct answer is **option 2** i.e. **9/8**.

$$\text{Total investment of A} = 2000 \times 6$$

$$\Rightarrow 12000$$

$$\text{Total investment of B} = 1500 \times 9$$

$$\Rightarrow 13500$$

$$\Rightarrow \text{Required Ratio} = 13500/12000$$

$$\Rightarrow 27/24 = 9/8$$

Q:9 The correct answer is **Option 3** i.e. **1353**.

$$\text{Amount of red sweets} = 11/13 \times \text{Amount of green sweets}$$

$$\Rightarrow (11/13 \times 1599)$$

$$\Rightarrow (11 \times 123)$$

$$\Rightarrow 1353$$

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Q:10 The correct answer is **option 3** i.e. **10**.

The ratio of black and red pen = $3/2$

After purchasing 3 black pens less,

The ratio of black and red pen = $6/5$

Let the number of black pens = $3x$

the number of red pens = $2x$

A/Q, $(3x - 3)/2x = 6/5$

$15x - 15 = 12x$

$3x = 15$

$x = 5$

The number of red pens = $2x = 2 \times 5 = 10$

So, this is it for today. We will meet again with another new topic. Till then, you can practice the questions again by downloading the PDF of Ratio and Proportion.