Ratio and Proportion Questions - Download PDF now!

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 the value of A : B = 4 : 5, and B : C = 7 : 5. Then find the value of A : B : C.

1. 28 : 30 : 25

2. 25 : 35 : 18

3. 18 : 35 : 25

4. 28 : 35 : 25

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

Q:2 If two numbers are in the ratio of 4 : 5 and the sum of their square is 3321, then find the smaller number.

1. 41

2. 27

3. 12

4. 36

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

Q:3 A 2500 gram alloy consists of two different alloys in the ratio 2 : 3. The first alloy is made up of metals A and B in the ratio 3 : 2 and the second alloy is made up of metals C and D in the ratio 5 : 7. Find the ratio of A : D in the 2500 gram alloy

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1. 12 : 17

2. 24 : 35

3. 23 : 25

4. 13 : 19

(**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 Ratio of male to female users of WhatsApp in a city in 2018 was 10 : 7 and ratio of male users in the city in 2018 to that in 2019 was 5 : 4. If total number of users in the city remains same in 2018 and 2019, then what was the ratio of female users in the city in 2018 to that in 2019?

1. 8 : 9

2. 7 : 9

3. 9 : 8

4. 5 : 8

(**Difficulty:** 3, **Estimated Time:** 20 Seconds) This was a test of your concepts!

Q:5 Ratio of value of air quality index of Delhi and Lucknow in 2019 was 21 : 11 and ratio of value of air quality index of Delhi in 2019 to that in 2020 was 5 : 4. If the sum of values of air quality index of both cities remains same in 2019 and 2020, then what was the ratio of value of air quality index of Lucknow in 2019 to that in 2020?

1. 6 : 7

2. 7 : 8

3. 11 : 17

4. 5 : 9

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

Q:6 There is a group of 3 women who have total 7 children. The sum of ages of 3 women is equal to sum of ages of their 7 children. The sum of present ages of eldest and yougest child is 30 years while the ratio of sum of ages of other 5 children and 3 women will be 11 : 13 after 5 years. What will be the sum of ages of all the women and children after 3 years?

1. 260 years

2. 240 years

3. 250 years

4. 270 years

(**Difficulty:** 4, **Estimated Time:** 30 Seconds) This was a hard nut to crack, be prepared for such questions in exam!

Q:7 Prakash is 22 years elder to his son. Prakash's daughter is 30 years younger than him. If the ratio of present ages of son and daughter is 13 : 11, then what was the age of Prakash when his son's age was half of the present age?

1. 52 years

2. 48 years

3. 46 years

4. 44 years

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

Q:8 If a : b = 5 : 4 then find the value of 4a + 5b - ab.

1. 25

2. 40

3. 20

4. 60

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

Q:9 Three numbers are in the ratio of 5 : 4 : 7. If the difference between the greatest and smallest number is 153, then find the sum of all three numbers.

1. 816

2. 819

3. 822

4. 813

(**Difficulty:** 2, **Estimated Time:** 15 Seconds) Another easy one! Let's score more...

Q:10 Find the fourth proportional of 15, 9 and 5.

1. 5

2. 3

3. 4

4. 2

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

Answer Key

Let's check out your score in this test.

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

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 answer is **option 4** i.e **28 : 35 : 25**.

We have given,

A : B = 4 : 5

B : C = 7 : 5

B should be the same in both conditions so,

A : B = (4 : 5) × 7 = 28 : 35

B : C = (7 : 5) × 5 = 35 : 25

So, the ratio of A : B : C = 28 : 35 : 25

Q:2 The correct answer is **option 4** i.e. **36**.

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Address : 1997, Mukherjee Nagar, 110009
Email : online@kdcampus.org
Call : +91 95551 08888

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Let's assume the ratio of the numbers = 4x : 5x

So, according to the question

$(4x)^2 + (5x)^2 = 3321$

$41x^2 = 3321$

$x^2 = 81$

$x = 9$

Smaller number = 4x = 36

Q:3 The correct answer is **option 2** i.e. **24 : 35**

The 2 alloys are in the ratio 2 : 3.

Therefore, quantity of A = 2/(2 + 3) × (2500) = 1000 gram and quantity of 2nd alloy is 2500 - 1000 = 1500 gram.

Quantity of A in first alloy = 3/(3 + 2) × (1000) = 600 gram

Quantity of D in second alloy = 7/(5 + 7) × (1500) = 875 gram
Hence, A : D = 600 : 875

⇒ **24 : 35**

Q:4 The correct answer is **option 2** i.e. **7 : 9**

Suppose male and female users of WhatsApp in the city in 2018 are '10x' and '7x' respectively.

So, Total users in 2018 = 10x + 7x = 17x

And Male users in 2019 = 10x × (4/5) = 8x

Since, total number of users in the city remains same in 2018 and 2019.

So, Female users in 2019 = 17x − 8x = 9x

Hence, Required ratio = 7x : 9x = **7 : 9**

Q:5 The correct answer is **option 3** i.e. **11 : 17**

Suppose the values of air quality index of Delhi and Lucknow in 2019 was '21x' and '11x' respectively.

So,

Sum of values of air quality index of both cities = 21x + 11x = 32x

And

Value of air quality index of Delhi in 2020 = 21x × (5/7) = 15x

Since the sum of values of air quality index of both cities remains same in 2019 and 2020

Value of air quality index of Lucknow in 2020 = 32x − 15x = 17x

Hence,

Required ratio = 11x : 17x = 11 : 17

Q:6 The correct answer is **option 1** i.e. **260 years**

Suppose the sum of ages of other 5 children except the youngest and oldest one and the 3 women after 5 years will be 11x and 13x respectively.

So, sum of present ages of 3 women = (13x - 3 × 5) = 13x - 15

And

Sum of present ages of other 5 children = (11x - 5 × 5) = 11x - 25

The sum of present ages of eldest and yougest children is 30 years

Hence,

13x - 15 = 11x - 25 + 30

2x = 20

x = 10

Hence,

Sum of present ages of 3 women = Sum of present ages of 7 children = 13x - 15 = 115 years

Hence,

Sum of ages of all the women and children after 3 years = 115 + 115 + 10 × 3 = 260 years

Q:7 The correct answer is **option 2** i.e. **48 years**

Prakash is 22 years elder to his son. Prakash's daughter is 30 years younger than him.

Suppose present age of Prakash = x

∴ Present age of Son = x − 22

Present age of Daughter = x − 30

Since ratio of present ages of son and daughter is 13 : 11,

So,

$(x − 22)/(x − 30) = 13/11$

⇒ $11x − 242 = 13x − 390$

⇒ $2x = 148$

⇒ $x = 74$

Age of Prakash = 74 years

Age of Son = 74 − 22 = 52 years

When Son's age was half i.e. 26 years old:

Age of father = 26 + 22 = 48 years

Q:8 The correct answer is **option 3** i.e. **20**

a : b = 5 : 4

So, the value of 4a + 5b - ab = 4 × 5 + 5 × 4 - 5 × 4

= 40 - 20 = **20**

Q:9 The correct answer is **option 1** i.e. **816**.

Let's assume the ratio of three numbers = 5x : 4x : 7x

The difference between the smallest and biggest number = 7x - 4x = 3x

3x = 153

x = 51

Sum of all three numbers = 5x + 4x + 7x = 16x = 16 × 51 = 816

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

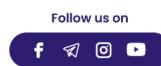Let us assume the fourth proportional of 15, 9, 5 is k.

So, according to the question

15/9 = 5/k

15k = 45

k = 3

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.