Ratio and Proportion Questions PDF with Detailed Solutions

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 P : Q = 10 : 11 and Q : R = 11 : 12, then P + Q : Q + R : R + P is:

1. 21 : 23 : 22

2. 22 : 21 : 23

3. 11 : 12 : 10

4. 23 : 22 : 21

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

Q:2 If a : b = 2 : 3 and c : b = 5 : 6, then a : ab : bc is equal to:

1. 6 : 9 : 12

2. 10 : 15 : 18

3. 2 : 12 : 15

4. 6 : 9 : 16

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

Q:3 A sum of money was divided between A and B in the ratio 17 : 25. If B gives Rs 5 to A, the ratio would change to 3 : 4. What is the sum of money?

1. 196

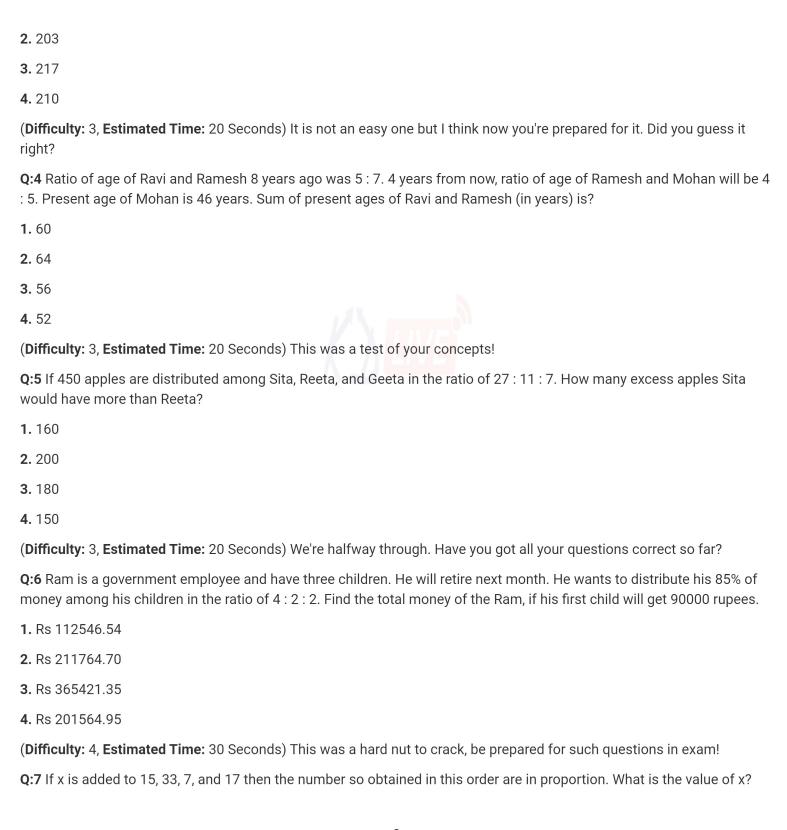Ratio and Proportion Questions PDF with Detailed Solutions

2. 203

3. 217

4. 210

(**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 age of Ravi and Ramesh 8 years ago was 5 : 7. 4 years from now, ratio of age of Ramesh and Mohan will be 4 : 5. Present age of Mohan is 46 years. Sum of present ages of Ravi and Ramesh (in years) is?

1. 60

2. 64

3. 56

4. 52

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

Q:5 If 450 apples are distributed among Sita, Reeta, and Geeta in the ratio of 27 : 11 : 7. How many excess apples Sita would have more than Reeta?

1. 160

2. 200

3. 180

4. 150

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

Q:6 Ram is a government employee and have three children. He will retire next month. He wants to distribute his 85% of money among his children in the ratio of 4 : 2 : 2. Find the total money of the Ram, if his first child will get 90000 rupees.

1. Rs 112546.54

2. Rs 211764.70

3. Rs 365421.35

4. Rs 201564.95

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

Q:7 If x is added to 15, 33, 7, and 17 then the number so obtained in this order are in proportion. What is the value of x?

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1. 3

2. 2

3. 5

4. None of these

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

Q:8 The salaries of Raju and Peter are in the ratio 3 : 5. If the salary of each is increased by Rs.2500, then the new ratio is 11 : 15. What is Peter's salary?

1. Rs.3500

2. Rs.2500

3. Rs.4000

4. Rs.5000

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

Q:9 The monthly salaries of A and B are in the ratio 7 : 8. If both of them get a salary increment of Rs. 6500, the new ratio becomes 15 : 17. What is the new monthly salary of A?

1. Rs. 97500

2. Rs. 99500

3. Rs. 94500

4. Rs. 96500

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

Q:10 In a solution of 420g, the ratio of carbon and potassium is 5 : 2. What is the weight of the potassium?

1. 135 g

2. 140 g

3. 120 g

4. 100 g

(**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. (1)	2. (3)	3. (4)	4. (2)	5. (1)
6. (2)	7. (1)	8. (4)	9. (1)	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 answer is **option 1** i.e. **21 : 23 : 22.**

Joining the ratios, P : Q : R = 10 : 11 : 12

then let P, Q and R be 10x, 11x and 12x

Now P + Q : Q + R : R + Q = 21x : 23x : 22x

= 21 : 23 : 22

Q:2 The correct answer is **Option 3** i.e. **2 : 12 : 15.**

Given:

a : b = 2 : 3

c : b = 5 : 6

a : b : c = (2 × 2) : (3 × 2) : 5

= 4 : 6 : 5

a : ab : bc = 4 : (4 × 6) : (6 × 5) = 4 : 24 : 30 = 2 : 12 : 15

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Q:3 The correct answer is **option 4** i.e. **210**

Let A got = 17x

and B got = 25x

As given in the question:

(17x + 5)/(25x - 5) = 3/4

⇒ 68x + 20 = 75x - 15

⇒ 7x = 35

⇒ x = 35/7 = 5

Thus,

A's money = 17 × 5 = 85

B's money = 25 × 5 = 125

Sum = 85 + 125 = 210

Q:4 The correct answer is **Option 2** i.e. **64.**

Present age of Mohan = 46 years

Age of Mohan 4 years from now = 46 + 4 = 50 years

Ratio of age of Ramesh and Mohan 4 years from now = 4 : 5

Age of Ramesh 4 years from now = 50 × (4/5) = 40 years

Age of Ramesh 8 years ago = 40 - 4 - 8 = 28 years

Age of Ravi 8 years ago = 28 × (5/7) = 20 years.

Sum of present age of Ravi and Ramesh = (28 + 20) + 8 × 2 = 64 years

Q:5 The correct answer is **option 1** i.e. **160**

Total apples = 450

⇒ Number of apples with Sita = 450 × 27/(27 + 11 + 7)

⇒ 450 × 27/45

⇒ 270

⇒ Number of apples with Reeta = 450 × 11/(27 + 11 + 7)

⇒ 450 × 11/45

⇒ 110

⇒ 270 - 110 = 160

Q:6 The correct answer is **option 2** i.e. **Rs 211764.70.**

Since He wants to distribute his 85% of money among his children in the ratio of 4 : 2 : 2

First children will get 4 units

⇒ 4 unit = 90000

So, Total distribute

⇒ 8 unit = 90000/4 × 8 = 180000

Now since Ram donate only 85%

So,

⇒ 85% = 180000

⇒ 100% = 180000/85 × 100 = 211764.70

Hence, total money = 211764.70

Q:7 The correct answer is **option 1** i.e. **3**

Let a, b, c, and d are in proportion then

⇒ a : b :: c : d = a/b = c/d

⇒ (15 + x)/(33 + x) = (7 + x)/(17 + x)

⇒ (15 + x)(17 + x) = (7 + x)(33 + x)

⇒ $255 + 32x + x^2 = 231 + 40x + x^2$

$\Rightarrow 8x = 24$

$\Rightarrow x = 3$

Q:8 The correct answer is **Option 4** i.e **Rs.5000**

Let the salaries of Raju and Peter are 3x and 5x respectively

then

$(3x + 2500)/(5x + 2500) = 11/15$

$\Rightarrow 45x + 37500 = 55x + 27500$

$\Rightarrow 10x = 10000$

$\Rightarrow x = 1000$

Hence, Salary of peter = 5 × 1000 = Rs. 5000

Q:9 The correct answer is **Option 1** i.e. **Rs 97500.**

The ratio of salaries of A and B = 7 : 8

New ratio = 15 : 17

Salary increment of each = Rs. 6500

Let the common ratio be x

A's salary = 7x

B's salary = 8x

After increment -

$(7x + 6500)/(8x + 6500) = 15/17$

$17(7x + 6500) = 15(8x + 6500)$

$119x + 110500 = 120x + 97500$

x = Rs. 13000

A's new month salary = 7x + 6500 = 7 × 13000 + 6500 = 91000 + 6500 = Rs. 97500

Q:10 The correct answer is **option 3** i.e. **120 g**

Let the quantity of carbon and potassium be 5x and 2x respectively.

$\Rightarrow$ 5x + 2x = 420

$\Rightarrow$ 7x = 420

$\Rightarrow$ x = 60g

$\Rightarrow$ 2x = 2(60)

$\Rightarrow$ 120 g

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.