Important Questions for Class 7 Maths Chapter 7: For exam purposes, these important questions from Chapter 7 Comparing Quantities are crucial as they focus on concepts frequently asked in exams. These include solving problems on ratios and percentages, calculating profit and loss, and determining discounts on marked prices.

Such problems test a student's ability to apply mathematical concepts to real-life scenarios, making them a key part of exam preparation. Practicing these ensures better performance in exams and builds confidence in tackling application-based questions.

Important Questions for Class 7 Maths Chapter 7 Overview

Comparing Quantities is an important chapter in Class 7 Maths that teaches how to compare two or more values in a simple and logical way. It starts with the concept of **ratios** which show the relationship between two quantities, like comparing the number of apples to oranges. For example, if there are 2 apples and 3 oranges, the ratio is written as 2:3. The chapter also explains percentages, which help us compare quantities with respect to 100. For example, if you scored 75 out of 100 in a test, your score is 75%.

Students learn about profit and loss, which are important in understanding business transactions. For example, if a shopkeeper buys an item for ₹50 and sells it for ₹70, the profit is ₹20.

The chapter introduces discounts, which are reductions in the price of goods, often seen during sales. For example, a 10% discount on a ₹500 item means you pay ₹450.

This chapter helps students understand and solve real-life problems, making maths more practical and interesting.

Important Questions for Class 7 Maths Chapter 7 PDF

The Important Questions for Class 7 Maths Chapter 7 Comparing Quantities PDF is a valuable resource for students aiming to strengthen their understanding of the concepts covered in the chapter.

The questions are created to enhance students problem-solving abilities and improve their skills in comparing quantities. This PDF is an essential resource for exam preparation, helping students gain confidence in solving real-life problems involving ratios, percentages, profit and loss, simple interest, and discounts. You can access the PDF through the link provided below for further study and practice.

Important Questions for Class 7 Maths Chapter 7 PDF

Important Questions for CBSE Class 7 Maths Chapter 7 Comparing Quantities

Here are some important questions from Class 7 Maths Chapter 7 Comparing Quantities along with their solutions:

Very Short Questions (1 Mark)

Question 1. Find the ratio of:

(a) 5 km to 400 m
(b) 2 hours to 160 minutes

Solution:

(a) 5 km = 5 × 1000 = 5000 m
Ratio of 5 km to 400 m
= 5000 m : 400 m
= 25 : 2
Required ratio = 25 : 2

(b) 2 hours = 2 × 60 = 120 minutes
Ratio of 2 hours to 160 minutes
= 120 : 160
= 3 : 4
Required ratio = 3 : 4

Question 2. State whether the following ratios are equivalent or not?

(a) 2 : 3 and 4 : 5
(b) 1 : 3 and 2 : 6

Solution:

(a) Given ratios = 2 : 3 and 4 : 5

Hence 2 : 3 and 4 : 5 are not equivalent ratios.
(b) Given ratios = 1 : 3 and 2 : 6
LCM of 3 and 6 = 6

Hence, 1 : 3 and 2 : 6 are equivalent ratios.

Question 3. Find the ratio of

a. 18m to 45cm

Solution: Let's convert both lengths into the same unit.

Question 4. Find the ratio of 600 g to 5 kg.

Solution: Convert 5 kg to grams: 5 kg = 5000 g.

Question 5. Find 25% of 150.

Solution: 25%×150=37.525

Short Answer Questions (2 Marks)

Question 1. What sum of money lent out at 12 per cent p.a. simple interest would produce ₹ 9000 as interest in 2 years?

Solution:

Here, Interest = ₹ 9000
Rate = 12% p.a.
Time = 2 years
Principal = ?
Hence, the required principal amount = ₹ 37500.

Question 2. Rashmi obtains 480 marks out of 600. Rajan obtains 560 marks out of 700. Whose performance is better?

Solution:

Rashmi obtains 480 marks out of 600
Marks Percentage = 480600 × 100 = 80%
Rajan obtains 560 marks out of 700
Marks Percentage = 560700 × 100 = 80%
Since, both of them obtained the same per cent of marks i.e. 80%.
So, their performance cannot be compared.

Question 3. ₹ 9000 becomes ₹ 18000 at simple interest in 8 years. Find the rate per cent per annum.

Solution:

Here, Principal = ₹ 9000
Amount = ₹ 18000
Interest = Amount – Principal = ₹ 18000 – ₹ 9000 = ₹ 9000

Hence, the required rate of interest = 1212%.

Question 4. The cost of an object is increased by 12%. If the current cost is ₹ 896, what was its original cost?

Solution:

Here, rate of increase in cost = 12%
Increased Cost = ₹ 896
Original Cost = ?
Let the Original Cost be ₹ x

Hence, the required cost = ₹ 800.

Long Answer Questions (3 Marks)

Question 1. The simple interest on a certain sum at 5% per annum for 3 years and 4 years differ by ₹ 82. Find the sum.

Solution:

Let the required sum be ₹ P.
Simple interest for 3 years

Alternate Method
Simple Interest gained from 3rd to 4th year = ₹ 82
Time (4th year – 3rd year) = 1 year

Required sum = ₹ 1640

Question 2. Rajan's monthly income is 20% more than the monthly income of Sarita. What per cent of Sarita's income is less than Rajan's monthly income?

Solution:

Let the monthly income of Sarita be ₹ 100.
Rajan's monthly income
Now, Sarita's monthly income is less than the monthly income of Raj an by = ₹ 120 – ₹ 100 = ₹ 20
Per cent of less in Rajan's monthly income
= 20×100120 = 503% = 1623%
Hence, the required per cent = 1623%

Question 3. If 10 apples are bought for ₹ 11 and sold at the rate of 11 apples for ₹ 10. Find the overall gain or loss per cent in these transactions.

Solution:

CP of 10 apples = ₹ 11
CP of 1 apple = ₹ 1110
SP of 11 apples = ₹ 10
SP of 1 apple = ₹ 1011

Question 4. If 25 men can do a work in 36 hours, find the number of men required to do the same work in 108 hours.

Solution:

Let the number of men required to be x.
Men : Hours :: Men : Hours
25 : 36 :: x : 108
Product of extremes = 25 × 108
Product of means = 36 × x
Product of means = Product of extremes
36 × x = 25 × 108
⇒ x = 25 × 3 = 75
Hence, the required number of men = 75.

Benefits of Solving Important Questions for Class 7 Maths Chapter 7

Familiarizes with Exam Format: Practicing important questions helps students become familiar with the exam format, types of questions, and the level of difficulty they might encounter. It allows them to experience the pattern of questions and understand what to expect in exams.

Improves Time Management: Solving these questions improves time management skills. Students get used to managing their time effectively during an exam, which is crucial for completing the paper within the given time frame.

Strengthens Understanding: The practice helps reinforce and deepen students understanding of key concepts such as ratios, percentages, profit and loss, and conversions. Repeatedly solving similar questions helps in better retention of these concepts.

Clarifies Doubts: Working through these questions can clarify doubts and provide a better conceptual grip on the topics. It helps in identifying areas where students need to focus more, thereby improving their overall comprehension.

Enhances Problem-Solving Skills: Solving different types of questions builds and enhances problem-solving skills. It challenges students to think critically, apply mathematical principles, and develop logical reasoning.

Identifies Weak Areas: Working on important questions helps students identify their weak areas. This allows them to focus their practice efforts on the concepts they find challenging, thereby improving their overall performance.