RS Aggarwal Solutions for Class 8 Maths Chapter 9 Exercise 9.2: The Physics Wallah academic team has produced a comprehensive answer for Chapter 9: Percentage of the RS Aggarwal class 8 textbook. The RS Aggarwal class 8 solution for chapter 9 Percentage Exercise-9B is uploaded for reference only; do not copy the solutions.

Before going through the solution of Chapter 9 Percentage Exercise-9B, one must have a clear understanding of chapter 9 Percentage. Read the theory of Chapter 9 Percentage and then try to solve all numerals of exercise-9B.

RS Aggarwal Solutions for Class 8 Maths Chapter 9 Exercise 9.2 Percentage Overview

Chapter 9 of RS Aggarwal Class 8 Maths focuses on the concept of percentages, an essential mathematical tool used to express numbers as parts of 100. Exercise 9.2 delves deeper into understanding and applying percentage calculations in various real-world scenarios.

The chapter begins with a thorough explanation of how to convert fractions and decimals into percentages and vice versa, providing students with a solid foundation in percentage conversions. This is crucial as percentages are often used to represent data in a more comprehensible form. Exercise 9.2 emphasizes practical applications, such as calculating the percentage of marks obtained in exams, percentage increase or decrease in prices, and discounts on products.

RS Aggarwal Solutions for Class 8 Maths Chapter 9 Exercise 9.2 (Ex 9B)

Below we have provided RS Aggarwal Solutions for Class 8 Maths Chapter 9 Exercise 9.2 Percentage –

Tick (√) the correct answer in each of the following:

$$(1)\,\frac{3}{5} = \frac{3}{5} \times 100 = (\mathrm{d})\ 60\%$$

(2) 0.8% when expressed as a decimal, is

$$\text{Ans: } \frac{0.8}{100} = \frac{8}{1000} = (\mathrm{b}) 0.008$$

(3) 6 : 5 when expressed as a percentage, is

$$\text{Solution: } 6:5 = \frac{6}{5} \times 100 = (c)120\%$$

(4) 5% of a number is 9. The number is

Solution: Let the required number be x. Then,

5% of x = 9

$$\Rightarrow \frac{5}{100} \times x = 9$$

$$\Rightarrow 5x = 900$$

$$\Rightarrow x = 180$$

Ans: (d)

(5) What per cent of 90 is 120?

$$\text{Ans: } \left(\frac{120}{90} \times 100\right)\% = (c)133\frac{1}{3}\%$$

(6) What percent of 10 kg is 250g?

Ans: Here 10 kg = 10,000 g

$$\text{Required percentage} = \left(\frac{250}{10000} \times 100\right)\% = (d)2.5\%$$

(7) 40% of ?= 240

$$\text{Solution: } \frac{40}{100} \times x = 240$$

$$\Rightarrow 40x = 24000$$

$$\Rightarrow x = 600$$

(8) ?% of 400 = 60

$$\text{Solution: } \frac{x}{100} \times 400 = 60$$

$$\Rightarrow 400x = 6000$$

$$\Rightarrow x = 15$$

Ans: (c)

(9) (180% of ?) ÷ 2 =504

$$\text{Solution: } \left(\frac{180}{100} \times x\right) \div 2 = 504$$

$$\Rightarrow 180x \div 2 = 50400$$

$$\Rightarrow 90x = 560$$

Ans: (d)

(10) 20% of Rs 800 = ?

$$\text{Solution: } \frac{20}{100} \times 800 = (a)\text{Rs } 160$$

(11) In an examination, Nitin gets 98 marks. This amounts to 56% of the maximum marks. What are the maximum marks?

Solution: Let the maximum marks be x.

$$\therefore \frac{56x}{100} = 98$$

$$\Rightarrow 56x = 9800$$

$$\Rightarrow x = 175$$

Ans: (c)

(12) A number is first increased by 10% and then reduce by 10%. The number

Ans: (b) decreases by 1%

(13) A period of 4 hours 30 min is what per cent of a day?

Ans: Here 4 hours 30 min = (240 + 30) = 270 min

A day = 24 hours = (24 × 60) = 1440 min

$$\therefore \left(\frac{270}{1440} \times 100\right)\% = (a)18\frac{3}{4}\%$$

(14) In an examination, 65% of total examinees passed. If the number of failures is 420, the total number of examinees is

Solution: Let the total number of examinees be 100.

Percentage of examinees passed = 65%

Percentage of examinees failed = (100 – 65)% = 35%

$$\therefore \frac{35}{100} \times x = 420$$

$$\Rightarrow 35x = 42000$$

$$\Rightarrow x = 1200$$

Ans: (c)

(15) A number exceeds 20% of itself by 40. The number is

Solution: Let the number be x.

$$\therefore x - \frac{20x}{100} = 40$$

$$\Rightarrow \frac{100x - 20x}{100} = 40$$

$$\Rightarrow 80x = 4000$$

$$\Rightarrow x = 50$$

Ans: (a)

(16) A number decreased by $27\frac{1}{2}\%$ of gives 87. The number is

Solution: Let the number be x.

$$\therefore x - \left(27\frac{1}{2}\right) \times \frac{1}{100} \times x = 87$$

$$\Rightarrow x - \frac{55}{2} \times \frac{x}{100} = 87$$

$$\Rightarrow \frac{200x - 55x}{100} = 87$$

$$\Rightarrow 145x = 8700$$

$$\Rightarrow x = 120$$

(17) 0.05 is what per cent of 20?

$$\text{Solution: Required percentage} = \left(\frac{0.05}{20} \times 100\right)\% = (c)0.25\%$$

(18) One-third of 1206 is what per cent of 134?

$$\text{Solution: Required percentage} = \left(\frac{1206}{3} \times \frac{1}{134} \times 100\right)\% = (d)300\%$$

(19) x% of y % of?

Solution: Let the required number be z. Then,

x% of y = y% of z

$$\Rightarrow \left(y \times \frac{x}{100}\right) = \left(z \times \frac{y}{100}\right)$$

$$\Rightarrow \frac{yx}{100} = \frac{zy}{100}$$

$$\Rightarrow yx = zy$$

$$\Rightarrow z = x$$

Ans: (a)

(20) What per cent of 2/7 is 1/35?

$$\text{Solution: Required percentage} = \left(\frac{1}{35} \times \frac{7}{2} \times 100\right)\% = 10\%$$

Benefits of RS Aggarwal Solutions for Class 8 Maths Chapter 9 Exercise 9.2

RS Aggarwal Solutions for Class 8 Maths Chapter 9 Exercise 9.2 on Percentages offers several benefits to students as they explore the concept of percentages and their applications. Here are some key benefits:

1. **Comprehensive Understanding:**

The solutions provide detailed explanations of each problem, helping students understand the step-by-step process of solving percentage-related questions. This thorough approach ensures that students grasp the fundamental concepts of percentages.

2. **Conceptual Clarity:**

By breaking down complex problems into simpler parts, the solutions enhance students' conceptual clarity. Students learn how to convert fractions and decimals into percentages and understand the relationships between these forms.

3. **Real-World Applications:**

The exercises include real-life scenarios such as calculating discounts, profit and loss, and percentage changes. This practical approach helps students relate mathematical concepts to everyday situations, enhancing their analytical skills.

4. **Exam Preparation**

Standardized Questions: The solutions align with the latest CBSE curriculum, ensuring students practice questions that are likely to appear in exams.

Confidence Building: Regular practice with these solutions boosts students' confidence, enabling them to tackle percentage-related questions in exams with ease.

5. **Critical Thinking Development**

Analytical Skills: Working through the exercises encourages students to think critically and analyze problems systematically, enhancing their analytical abilities.

Logical Reasoning: Understanding the logic behind percentage problems fosters logical reasoning skills, which are essential for success in mathematics.

6. **Foundation for Advanced Topics**

Foundation for Higher Studies: A strong grasp of percentages lays the groundwork for more advanced topics in mathematics, such as algebra, statistics, and financial mathematics.

Interdisciplinary Relevance: Mastery of percentages is crucial not only in math but also in subjects like economics, science, and business studies, making it a valuable interdisciplinary skill.

7. **Time Management**

Efficient Learning: The structured solutions help students learn how to approach and solve problems efficiently, saving time during exams.

Improved Accuracy: Practicing with these solutions reduces errors and improves accuracy in calculations.