

RS Aggarwal Solutions for Class 8 Maths Chapter 5 Exercise 5.4: The Physics Wallah academic team has produced a comprehensive answer for Chapter 5: Playing with Numbers in the RS Aggarwal class 8 textbook. One should read Chapter 5 Playing with Numbers Theory before attempting to solve all of the numerical problems in exercise 5D.

This will ensure that you have a firm understanding of Chapter 5 Playing with Numbers. For class 8 maths students, the NCERT textbook is a highly recommended resource for solving numerical problems and referencing NCERT solutions.

RS Aggarwal Solutions for Class 8 Maths Chapter 5 Exercise 5.4 Playing with Numbers Overview

Chapter 5, "Playing with Numbers," in RS Aggarwal's Class 8 Maths textbook, focuses on enhancing students' understanding of numbers through various concepts, including divisibility, factors, and multiples. Exercise 5.4 (Ex 5D) emphasizes the exploration of co-prime numbers, understanding common factors, and solving problems related to the greatest common divisor (GCD) and least common multiple (LCM).

In Exercise 5.4, students learn how to identify co-prime numbers, which are pairs of numbers with no common factors other than 1. The exercise helps students practice finding the common factors of numbers and understanding how these factors relate to GCD and LCM. Problems in this exercise challenge students to calculate the GCD and LCM using both prime factorization and division methods, reinforcing their understanding of the relationship between these two concepts.

RS Aggarwal Solutions for Class 8 Maths Chapter 5 Exercise 5.4 (Ex 5D)

Below we have provided RS Aggarwal Solutions for Class 8 Maths Chapter 5 Exercise 5.4 Playing with Numbers-

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

Question (1) If 5×6 is exactly divisible by 3, then the least value of x is

Ans: (b) 1

$5 + x + 6 = (11 + x)$ must be divisible by 3.

This happens when $x = 1$ or 4 or 7.

Since x is digit, it cannot be more than 9.

$$\therefore x = 1$$

Question (2) If $64y8$ is exactly by 3, then the least value of y is

Ans: (a) 0

$$6 + 4 + y + 8 = 18 + y$$

This is divisible by 3 as y is equal to 0.

Question (3) If 7×8 is exactly divisible by 9, then the least value of y is

Ans: (c) 3

$$7 + x + 8 = 15 + x$$

18 is divisible by 9.

$$\text{Therefore, } 15 + x = 18$$

$$\Rightarrow x = 3$$

Question (4) If $37y4$ is exactly divisible by 9, then the least value of y is

Ans: (d) 4

$$3 + 7 + y + 4 = 14 + y$$

$$\therefore 14 + y = 18$$

$$\Rightarrow y = 18 - 14 = 4$$

Question (5) If $4xy7$ is exactly divisible by 3, then the least value of $(x + y)$ is

Ans: (a) 1

$$4 + x + y + 7 = 11 + (x + y)$$

$$\Rightarrow 11 + (x + y) = 12$$

$$\Rightarrow (x + y) = 12 - 11 = 1$$

Question (6) If $x7y5z$ is exactly divisible by 3, then the least value of $(x + y)$ is

Ans: (d) 3

$$x + 7 + y + 5 = (x + y) + 12$$

This sum is divisible by 3 is $x + y + 12$ is 12 or 15.

$$\therefore x + y + 12 = 12$$

$$\Rightarrow x + y = 12 - 12 = 0$$

But $x + y$ cannot be 0 because x and y will have to be 0.

$$\therefore x + y + 12 = 15$$

$$\Rightarrow x + y = 15 - 12 = 3$$

Question (7) If $x4y5z$ exactly divisible by 9, then the least value of $(x + y + z)$ is

Ans: (c) 9

$$X + 4 + y + 5 + z = 9 + (x + y + z)$$

This equation is equal to 0 for the number $x4y5z$ to be divisible by 9.

But x is the first digit, so it can't be 0.

$$\therefore x + 4 + y + 5 + z = 18$$

$$\Rightarrow x + y + z = 18 - 9 = 9$$

Question (8) If $1A2B5$ is exactly divisible by 9, then the least value of $(A + B)$ is

Ans: (b) 1

$$1 + A + 2 + B + 5 = (A + B) + 8$$

The number is divisible by 9 is $(A + B) = 1$

Question (9) If the 4-digit number $x27y$ is exactly divisible by 9, then the least value of $9x + y$ is

Ans: (d) 9

$$X + 2 + 7 + y = (x + y) + 9$$

This sum will be divisible by 9, if $(x + y)$ is 0.

Since, x is the first digit it can never be 0.

$$\therefore x + y + 9 = 18$$

$$\Rightarrow x + y = 9$$

Benefits of RS Aggarwal Solutions for Class 8 Maths

Chapter 5 Exercise 5.4

Here are the key benefits of using RS Aggarwal Solutions for Class 8 Maths Chapter 5 Exercise 5.4 (Ex 5D), "Playing with Numbers":

1. Comprehensive Understanding of Co-Prime Numbers

Identification Skills: Students learn how to identify co-prime numbers, which are pairs of numbers with no common factors other than 1. This knowledge is foundational for advanced number theory.

Real-Life Application: Understanding co-prime numbers helps in various real-life applications, such as cryptography and coding.

2. Strengthened Grasp of GCD and LCM

Efficient Calculation: The solutions provide efficient methods for calculating the greatest common divisor (GCD) and least common multiple (LCM), enhancing computational skills.

Multiple Methods: Students learn different approaches to finding GCD and LCM, such as prime factorization and the division method, broadening their mathematical toolkit.

3. Improved Problem-Solving Skills

Logical Thinking: The exercise encourages logical reasoning and analytical thinking, essential skills for solving complex mathematical problems.

Pattern Recognition: By practicing these exercises, students develop the ability to recognize patterns and relationships between numbers, boosting their problem-solving efficiency.