Class 7

Important Formulas

Chapter 1 – Integers

1. The numbers. . . , -4, -3, -1, 0, 1, 2, 3, 4, . . . etc. are integers.

2. 1, 2, 3, 4, 5. . . . are positive integers and -1,-2, -3, . . are negative integers.

3. 0 is an integer which is neither positive nor negative.

4. On an integer number line, all numbers to the right of 0 are positive integers and all numbers to the left of 0 are negative integers.

5. 0 is less than every positive integer and greater than every negative integer.

6. Every positive integer is greater than every negative integer.

7. Two integers that are at the same distance from 0, but on opposite sides of it are called opposite numbers.

8. The greater the number, the lesser is its opposite.

9. The sum of an integer and its opposite is zero.

10. The absolute value of an integer is the numerical value of the integer without regard to its sign. The absolute value of an integer a is denoted by |a| and is given by

 $|a| = \begin{cases} a, if a is positive or 0\\ -a, if a is negative \end{cases}$

11. The sum of two integers of the same sign is an integer of the same sign whose absolute value is equal to the sum of the absolute values of the given integers.

12. The sum of two integers of opposite signs is an integer whose absolute value is the difference of the absolute values of addend and whose sign is the sign of the addend having greater absolute value.

13. To subtract an integer b from another integer a, we change the sign of b and add it to a. Thus, a - b = a + (-b)

14. All properties of operations on whole numbers are satisfied by these operations on integers.

15. If a and b are two integers, then (a - b) is also an integer.

16. –a and a are negative or additive inverses of each other.

17. To find the product of two integers, we multiply their absolute values and give the result a plus sign if both the numbers have the same sign or a minus sign otherwise.

18. To find the quotient of one integer divided by another non-zero integer, we divide their absolute values and give the result a plus sign if both the numbers have the same sign or a minus sign otherwise.

19. All the properties applicable to whole numbers are applicable to integers in addition, the subtraction operation has the closure property.

20. Any integer when multiplied or divided by 1 gives itself and when multiplied or divided by-1 gives its opposite.

21. When expression has different types of operations, some operations have to be performed before the others. That is, each operation has its own precedence. The order in which operations are performed is division, multiplication, addition and finally subtraction (DMAS).

22. Brackets are used in an expression when we want a set of operations to be performed before the others.

23. While simplifying an expression containing brackets, the operations within the innermost set of brackets are performed first and then those brackets are removed followed by the ones immediately after them till all the brackets are removed.

24. While simplifying arithmetic expressions involving various brackets and operations, we use BODMAS rule.

NCERT Solutions For Class 7 Maths

Class 7 Maths Chapter 1 Integers

- Class 7 Integers Ex 1.1
- Class 7 Integers Ex 1.2
- Integers Class 7 Exercise 1.3
- Integers Class 7 Exercise 1.4

Class 7 Maths Chapter 2 Fractions and Decimals

- Fractions and Decimals Class 7 Ex 2.1
- Fractions and Decimals Class 7 Ex 2.2
- Fractions and Decimals Class 7 Ex 2.3
- Fractions and Decimals Class 7 Ex 2.4
- Fractions and Decimals Class 7 Exercise 2.5
- Fractions and Decimals Class 7 Exercise 2.6
- Fractions and Decimals Class 7 Exercise 2.7

Class 7 Maths Chapter 3 Data Handling

- Data Handling Class 7 Ex 3.1
- Data Handling Class 7 Ex 3.2
- Data Handling Class 7 Exercise 3.3
- Data Handling Class 7 Exercise 3.4

Class 7 Maths Chapter 4 Simple Equations

- Simple Equations Class 7 Ex 4.1
- Simple Equations Class 7 Ex 4.2
- Simple Equations Class 7 Exercise 4.3
- Simple Equations Class 7 Exercise 4.4

Class 7 Maths Chapter 5 Lines and Angles

- Lines and Angles Class 7 Ex 5.1
- Lines and Angles Class 7 Exercise 5.2

Class 7 Maths Chapter 6 The Triangle and Its Properties

- The Triangle and Its Properties Class 7 Ex 6.1
- The Triangle and Its Properties Class 7 Ex 6.2
- The Triangle and Its Properties Class 7 Exercise 6.3
- The Triangle and Its Properties Class 7 Exercise 6.4
- The Triangle and Its Properties Class 7 Exercise 6.5

Class 7 Maths Chapter 7 Congruence of Triangles

• Congruence of Triangles Class 7 Ex 7.1

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• Congruence of Triangles Class 7 Ex 7.2

Class 7 Maths Chapter 8 Comparing Quantities

- Comparing Quantities Class 7 Ex 8.1
- Comparing Quantities Class 7 Ex 8.2
- Comparing Quantities Class 7 Exercise 8.3

Class 7 Maths Chapter 9 Rational Numbers

- Rational Numbers Class 7 Ex 9.1
- Rational Numbers Class 7 Ex 9.2

Class 7 Maths Chapter 10 Practical Geometry

- Practical Geometry Class 7 Ex 10.1
- Practical Geometry Class 7 Ex 10.2
- Practical Geometry Class 7 Ex 10.3
- Practical Geometry Class 7 Exercise 10.4
- Practical Geometry Class 7 Exercise 10.5

Class 7 Maths Chapter 11 Perimeter and Area

- Perimeter and Area Class 7 Ex 11.1
- Perimeter and Area Class 7 Ex 11.2
- Perimeter and Area Class 7 Exercise 11.3
- Perimeter and Area Class 7 Exercise 11.4

Class 7 Maths Chapter 12 Algebraic Expressions

- Algebraic Expressions Class 7 Ex 12.1
- Algebraic Expressions Class 7 Ex 12.2
- Algebraic Expressions Class 7 Exercise 12.3
- Algebraic Expressions Class 7 Exercise 12.4

Class 7 Maths Chapter 13 Exponents and Powers

- Exponents and Powers Class 7 Ex 13.1
- Exponents and Powers Class 7 Ex 13.2
- Exponents and Powers Class 7 Exercise 13.3

Class 7 Maths Chapter 14 Symmetry

- Symmetry Class 7 Ex 14.1
- Symmetry Class 7 Ex 14.2
- Class 7 Symmetry Exercise 14.3

Class 7 Maths Chapter 15 Visualising Solid Shapes

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- Visualising Solid Shapes Class 7 Ex 15.1
- Visualising Solid Shapes Class 7 Ex 15.2
- Visualising Solid Shapes Class 7 Exercise 15.3
- Visualising Solid Shapes Class 7 Exercise 15.4

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Chapter 1: Integers **Chapter 2: Fractions** Chapter 3: Decimals **Chapter 4: Rational Numbers** Chapter 5: Operations on Rational Numbers Chapter 6: Exponents **Chapter 7: Algebraic Expressions** Chapter 8: Linear Equations in One Variable **Chapter 9: Ration And Proportion** Chapter 10: Unitary Method Chapter 11: Percentage Chapter 12: Profit and Loss Chapter 13: Simple Interest Chapter 14: Lines and Angles Chapter 15: Properties of Triangles Chapter 16: Congruence Chapter 17: Constructions Chapter 18: Symmetry Chapter 19: Visualising Solid Shapes Chapter 20: Mensuration I Chapter 21: Mensuration II Chapter 22: Data Handling I (Collection and organisation of Data) Chapter 23: Data Handling II (Central Values) Chapter 24: Data Handling III (Construction of Bar Graphs)

Chapter 25: Data Handling IV (Probability)