#### Class 7

#### **Important Formulas**

#### **Chapter 6 – The Triangles and its Properties**

1. A triangle is a figure made up by three line segments joining, in pairs, three non-collinear points. That is, if A, B, C are three non-collinear points, the figure formed by three line segments AB, BC and CA is called a triangle with vertices A, B, C.

2. The three line segments forming a triangle are called the sides of the triangle.

3. The three sides and three angles of a triangle are together called the six parts or elements of the triangle.

4. A triangle whose two sides are equal, is called an isosceles triangle.

5. A triangle whose all sides are equal, is called an equilateral triangle.

6. A triangle whose no two sides are equal, is called a scalene triangle.

7. A triangle whose all the angles are acute is called an acute triangle.

8. A triangle whose one of the angles is a right angle is called a right triangle.

9. A triangle whose one of the angles is an obtuse angle is called an obtuse triangle.

10. The interior of a triangle is made up of all such points P of the plane, as are enclosed by the triangle.

11. The exterior of a triangle is that part of the plane which consists of those points Q, which are neither on the triangle nor in its interior.

12. The interior of a triangle together with the triangle itself is called the triangular region.

13. The sum of the angles of a triangle is two right angles or  $180^{\circ}$ .

14. If a side of a triangle is produced, the exterior angle so formed is equal to the sum of the interior opposite angles.

15. In any triangle, an exterior angle is greater than either of the interior opposite angles.

16. The sum of any two sides of a triangle is greater than the third side.

17. In a right triangle, if a, b are the lengths of the sides and c that of the hypotenuse, then

 $c^2 = a^2 + b^2$ 

18. If the sides of a triangle are of lengths a, b and c such that  $c^2 = a^2 + b^2$ , then the triangle is right-angled and the side of length c is the hypotenuse.

19. Three positive numbers a, b, c in this order are said to form a Pythagorean triplet, if  $c^2 = a^2 + b^2$ . Triplets (3, 4, 5) (5, 12, 13), (8, 15, 17), (7, 24, 25) and (12, 35, 37) are some Pythagorean triplets.

# **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

# **RD Sharma Class 7 Solutions**

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)