**[MATHEMATICS](http://www.result.pk)**

[For Class IX (marks 75)](http://www.result.pk)

**[1. MATRICES AND DETERMINANTS](http://www.result.pk)**

[1.1 Introduction to Matrices Define](http://www.result.pk)

[1.2 Types of Matrices](http://www.result.pk)

[1.3 Addition and Subtraction of Matrices](http://www.result.pk)

[1.4 Multiplication of Matrices](http://www.result.pk)

[1.5 Multiplicative Inverse of a Matrix](http://www.result.pk)

[1.6 Solution of Simultaneous Linear Equations](http://www.result.pk)

**[2. REAL AND COMPLEX NUMBERS](http://www.result.pk)**

[2.1 Real Numbers](http://www.result.pk)

[2.2 Properties of Real Numbers](http://www.result.pk)

[2.3 Radicals and Radicands](http://www.result.pk)

[2.4 Laws of Exponents/Indices](http://www.result.pk)

[2.5 Complex Numbers](http://www.result.pk)

[2.6 Basic Operations on Complex Numbers](http://www.result.pk)

**[3. LOGARITHMS](http://www.result.pk)**

[3.1 Scientific Notation](http://www.result.pk)

[3.2 Logarithm](http://www.result.pk)

[3.3 Common and Natural Logarithm](http://www.result.pk)

[3.4 Laws of Logarithm](http://www.result.pk)

[3.5 Application of Logarithm](http://www.result.pk)

**[4. ALGEBRAIC EXPRESSIONS AND ALGEBRAIC FORMULAS](http://www.result.pk)**

[4.1 Algebraic expressions](http://www.result.pk)

[4.2 Algebraic Formulae](http://www.result.pk)

[4.3 Surds and their Application](http://www.result.pk)

[4.4 Rationalization](http://www.result.pk)

**[5. FACTORIZATION](http://www.result.pk)**

[5.1 Factorization](http://www.result.pk)

[5.2 Remainder Theorem and Factor Theorem](http://www.result.pk)

[5.3 Factorization of a Cubic Polynomial](http://www.result.pk)

**[6. ALGEBRAIC MANIPULATION](http://www.result.pk)**

[6.1 Highest Common Factor and Least Common Multiple](http://www.result.pk)

[6.2 Basic Operations on Algebraic Fractions](http://www.result.pk)

[6.3 Square Root of Algebraic Expression](http://www.result.pk)

**[7. LINEAR EQUATIONS AND INEQUALITIES](http://www.result.pk)**

[7.1 Linear Equations](http://www.result.pk)

[7.2 Equation involving Absolute Value](http://www.result.pk)

[7.3 Linear Inequalities](http://www.result.pk)

[7.4 Solving Linear Inequalities](http://www.result.pk)

**[8. LINEAR GRAPHS AND THEIR APPLICATION](http://www.result.pk)**

[8.1 Cartesian Plane and Linear Graphs](http://www.result.pk)

[8.2 Conversion Graphs](http://www.result.pk)

[8.3 Graphic Solution of Equations in two Variables](http://www.result.pk)

**[9. INTRODUCTION TO COORDINATE GEOMETRY](http://www.result.pk)**

[9.1 Distance Formula](http://www.result.pk)

[9.2 Collinear Points](http://www.result.pk)

[9.3 Mid-point Formula](http://www.result.pk)

**[10. CONGRUENT TRIANGLES](http://www.result.pk)**

[10.1 Congruent Triangles](http://www.result.pk)

**[11. PARALLELOGRAMS AND TRIANGLES](http://www.result.pk)**

[11.1 Parallelograms and Triangles](http://www.result.pk)

**[12. LINE BISECTORS AND ANGLE BISECTORS](http://www.result.pk)**

[12.1 Line Bisectors and Angle Bisectors](http://www.result.pk)

**[13. SIDES AND ANGLES OF A TRIANGLE](http://www.result.pk)**

[13.1 Sides and Angles of a Triangle](http://www.result.pk)

**[14. RATIO AND PROPORTION](http://www.result.pk)**

[14.1 Ratio and Proportion](http://www.result.pk)

**[15. PYTHAGORAS’ THEOREM](http://www.result.pk)**

[15.1 Pythagoras’ Theorem](http://www.result.pk)

**[16. THEOREMS RELATED WITH AREA](http://www.result.pk)**

[16.1 Theorems Related with Area](http://www.result.pk)

**[17. PRACTICAL GEOMETRY – TRIANGLES](http://www.result.pk)**

[17.1 Construction of Triangle](http://www.result.pk)

[17.2 Figures with Equal Areas](http://www.result.pk)

**[RECOMMENDED REFERENCE BOOKS FOR CLASS IX](http://www.result.pk)**

 [The question paper will be syllabus oriented. However, the following book is recommended for reference and supplementary reading:](http://www.result.pk)

 [1. Mathematics (Science Group)](http://www.result.pk)

 [Caravan Book House, Lahore](http://www.result.pk)