

SCOPE OF MATERIAL – DETAILED REQUIREMENTS

1. Knowledge of graphs and properties of elementary functions of a real variable (linear function, quadratic function, rational function, power function, exponential function, logarithmic function, trigonometric functions).
2. Ability to solve simple equations and inequalities:
 - Polynomial equations and inequalities (with particular emphasis on quadratic equations and inequalities),
 - Equations and inequalities involving absolute value,
 - Equations and inequalities involving absolute value,
3. Understanding of arithmetic and geometric sequences (including the formula for the sum of n terms of a sequence).
4. Ability to solve systems of linear equations with two unknowns.
5. Ability to calculate the areas of regular polygons.
6. Ability to calculate the surface areas and volumes of prisms, pyramids, and solids of revolution (cone, cylinder, sphere).