



Math Department

Lessons required for the Math Entrance Exam:(Grade 10ADP to 11ADP) (Algebra 2)

*Calculator is needed.

1. TOP: Find functional values.
OBJ: 1.1 Find functional values.
2. TOP: Linear equations
OBJ: 2.1 Write an equation of a line perpendicular or parallel to a given line in slope-intercept form.
2.2 Solve absolute value equations and check extraneous solutions.
3. TOP: Quadratic functions
OBJ: 3.1 Find the y-intercept, the equation of the axis of symmetry, and the x-coordinate of the vertex.
3.2 Replace $h(t)$ by 0 in the given quadratic function and solve for t .
3.3 Use the discriminant to determine the number and types of roots of a quadratic equation.
3.4 Write a quadratic equation with the given roots.
4. TOP: Polynomial functions
OBJ: 4.1 Identify general shapes of graphs of polynomial functions by describing the end behavior, determining whether they represent odd-degree or even-degree polynomial functions and stating the number of real zeros.
4.2 Factor polynomials completely by grouping.
5. TOP: Radical expressions.
OBJ: 5.1 Divide radical expressions.
5.2 Add and subtract radical expressions.
5.3 Solve equations with radicals.
6. TOP: Solve systems of linear equations
OBJ: 6.1 Solve systems of linear equations by using elimination and substitution.
6.2 Write a system of equations for a given situation and solve it.
7. TOP: Rational expressions.
OBJ: 7.1 Add and Subtract rational expressions.
7.2 Solve Rational equations.