

10IP Mathematics Curriculum

Textbooks: Advanced Mathematics, Geometry- Holt McDougal, 2011

Chapter	Chapter Title	Periods
0	Algebra Revision	4
One	Linear and Quadratic Functions- Points and Lines	4
Lesson 1.1	<i>Find the intersection of 2 lines, the length of a segment, the coordinates of the midpoint of a segment</i>	
One	Linear and Quadratic Functions- Slopes of Lines	4
Lesson 1.2	<i>Find the slope of a line, determine whether 2 lines are parallel, perpendicular, or neither</i>	
One	Linear and Quadratic Functions- Equations of Lines	5
Lesson 1.3	<i>Find the equation a line given certain geometric properties of a line such as median, height, bisector, or perpendicular bisector using three types of equations: slope-intercept form, point-slope form, or intercept form</i>	
One	Linear and Quadratic Functions- The Complex Numbers	3
Lesson 1.5	<i>Understand the concept of Complex numbers. Add, subtract, multiply, and divide complex numbers</i>	
One	Linear and Quadratic Functions- Solving Quadratic Equations	4
Lesson 1.6	<i>Solve quadratic equations using the factoring, trinomial, and completing the square methods</i>	
Two	Polynomial Functions- Polynomials	4
Lesson 2.1	<i>Identify a polynomial function, evaluate a function using synthetic substitution, determine its zeroes</i>	
Two	Polynomial Functions- Synthetic Division/Identification Method	4
Lesson 2.2	<i>Use the synthetic division, apply the remainder and factor theorems. Use the identification method to find the quotient. Use equal polynomials or null polynomials to find missing coefficients</i>	
Two	Polynomial Functions- Solving Polynomials Equations by factoring	4
Lesson 2.6	<i>Solve polynomial equations by factoring after grouping terms, Trinomials</i>	

Chapter	Chapter Title	Periods
Three	Inequalities- Linear Inequalities; Absolute Value	4
Lesson 3.1	<i>Solve and graph linear inequalities in one variable, Solve absolute value equations and inequalities geometrically and algebraically</i>	
Three	Inequalities- Polynomial Inequalities in one variable	4
Lesson 3.2	<i>Solve and graph polynomial inequalities in one variable</i>	
Three	Inequalities- Polynomial Inequalities in two variables	4
Lesson 3.3	<i>Graph polynomial inequalities in two variables, graph the solution set of a system of inequalities</i>	
Three	Inequalities- Linear Programming	4
Lesson 3.4	<i>Solve certain applied problems using linear programming</i>	
Four	Exponents-	4
Lesson 4.1	<i>Identify a function, determine the domain, range, zeros of a function</i>	
Four	Functions- Operations on Functions	5
Lesson 4.2	<i>Perform operations on functions and determine the domain of the resulting functions</i>	
Four	Functions- Reflecting Graphs; Symmetry	4
Lesson 4.3	<i>Reflect graphs across the x-axis and the y-axis; Use symmetry to sketch graphs</i>	
Twelve	Vectors- Geometric Representation of vectors	4
Lesson 12.1	<i>Perform basic operations on vectors: Addition, Subtraction, Multiplication</i>	
Twelve	Vectors- Algebraic Representation of vectors	4
Lesson 12.2	<i>Use coordinates to perform vector operations</i>	
Twelve	Vectors- Parallel and Perpendicular vectors; Dot Product	4
Lesson 12.4	<i>Define and apply the dot product, find the angle between 2 vectors, magnitude</i>	
Nine	Triangle Trigonometry- Solving Right Triangles	4
Lesson 9.1	<i>Use Trigonometry to find unknown sides or angles of a right triangle</i>	
Nine	Triangle Trigonometry- The Area of a Triangle	4

Lesson 9.2	<i>Find the area of a triangle given the lengths of 2 sides and the measure of the included angle</i>	
Nine	Triangle Trigonometry- The law of Sines	4
Lesson 9.3	<i>Use the Law of Sines to find unknown parts of a triangle</i>	
Eleven	Geometry- Circles- Lines that intersects Circles	4
Lesson 11.1	<i>Identify tangents, secants, and chords. Use prop. of tangents to solve problems</i>	
Eleven	Geometry- Circles- Arcs and Chords	5
Lesson 11.2	<i>Apply properties of arcs and chords</i>	

Eleven	Geometry- Sector Area and Arc Length	4
Lesson 11.3	<i>Find the area of sectors. Find arc lengths</i>	
Eleven	Geometry- Inscribed Angles	4
Lesson 11.4	<i>Find the measure of an inscribed angle, Use inscribed angles and their properties to solve problems</i>	
Eleven	Geometry- Angle Relationships in Circles	4
Lesson 11.5	<i>Find the measures of angles formed by lines that intersect circles, Use angle measures to solve problems</i>	
Eleven	Geometry- Segment Relationships in Circles	4
Lesson 11.6	<i>Find the lengths of segments formed by lines that intersect circles, Use lengths of segments to solve problems</i>	
Seventeen	Statistics-Tables, Graphs, And Averages	4
Lesson 17.1	<i>Display a set of data using a stem-and-leaf plot, a histogram, a frequency polygon, or a cumulative frequency polygon; find the mean, median, and mode</i>	
Seventeen	Statistics-Box-and-Whisker Plots	4
Lesson 17.2	<i>Draw a box-and-whisker plot for a set of data, use both plots to compare sets</i>	
Seventeen	Statistics- Variability	4
Lesson 17.3	<i>Find the variance and standard deviation of a set of data; convert data to standard values</i>	