

Use this topic outline as a checklist to ensure you are reviewing all the Semester 1 concepts. Also, use it to make sure you have easy access in your notebook to all the handouts provided on these topics.

In addition to the midterm review, please review all quizzes and tests that have been returned to you

Section	Topics	Pages
1.2	Evaluating Functions Piecewise Functions	Pages 19 and 20
1.3	Domain/Range of Functions Increasing/Decreasing - open intervals Identify Odd/Even Functions	Pages 30-32, 36-37
1.5	Composition of Functions Operations with Functions -Adding, subtracting, multiplying, dividing	Pages 51-57
1.6	Inverse Functions One-to-one relationship Finding inverses algebraically Graph of inverse functions Verifying using composition of functions Restrict domain of function so that it is one-to-one	Pages 62-68
2.2	Polynomials Zeros= x -intercept=solution When a is a zero, then $(x-a)$ is a FACTOR. Zeros of Polynomial Functions Using factoring to find zeros (same as solutions) Using calculator to find zeros Write a polynomial given zeros	p.105-108,
2.3	Real Zeros of Polynomial Functions Synthetic Division- can be used to factor a polynomial but limited to divisors in $(x-a)$ form. If a polynomial division gives a remainder of zero, then the divisor for synthetic is a zero and the divisor for long division is a factor. Remainder Theorem p.120 Rational Zero Test p.122 (Ex 7, 8 and 9)	p.116-126
2.4/2.5	Real and Complex Zeros of Polynomials Add, subtract, multiply and divide complex numbers Use the Fundamental Theorem of Algebra to determine the number of zeros of a polynomial function Find all zeros of a polynomial function	Pages 131-143
2.6	Domain of rational function Determine if function is continuous or discontinuous Determine equations for horizontal/vertical asymptotes Determine behavior of function near asymptotes	Pages 146-151

2.7	Graphs of rational functions Slant Asymptotes	Pages 156-160
3.1	Evaluate exponential functions Exponential Applications: Compound interest, half-life, population models	Pages 184-187
3.1	Investigate natural base e Evaluate functions using e Applications with Natural Base e: Continuous Interest, population models	Pages 187-192
3.2	Logarithmic functions: Evaluate, Simplify, Solve, Graph (including transformations) and applications	Pages 196-199
3.2	Natural logarithmic functions: Evaluate, simplify, solve, and applications: Sound Intensity, Human Memory	Pages 200-202
3.3	Change of base formula Properties of logs to expand and condense Applications	Pages 207-210
3.4/3.5	Solve Exponential and Logarithmic Equations Check for extraneous solutions Applications: Doubling investment, Salary, Forestry Modeling Population Growth	Pages 214-220 Page 227
4.1	Radian Measure Standard Position Coterminal Angles Complementary/Supplementary Degree-Radian conversion Arc Length	p.258-264
4.2	Unit Circle and Trigonometric Functions Determining both exact and trigonometric values	p. 269-273
4.3	Right angle trigonometry Evaluating Trig functions Applying Trig Identities Trig Applications: Angles of Elevation/Depression	p.277-283
4.4	Trigonometric Functions of any Angle Find a trig function given a point not on the Unit Circle Determine the sign of the trig function depending on the quadrant the angle is in Using Reference Angles	p. 288-293
4.5	Graphing sine and cosines curves With "a" values (amplitude/vertical stretch or shrink) With "d" values (vertical shift) With "b" and "c" values (horizontal transformations) Writing equations of sine and cosine curves	p. 297 – 303