

## Topics for Pre-Calculus Mid-Term

- 1 Find inverse of polynomial function
- 2 Candidates for Rational Zeros
- 3 Solve using interval notation rational expression  $\geq 0$ , etc.
- 4 Evaluate piecewise function
- 5 Relations between parallel lines
- 6 Relations between perpendicular lines
- 7 Find domain of a function
- 8 Find vertex of quadratic function
- 9 Long Division
- 10 Synthetic Division
- 11 Synthetic Substitution
- 12 Function Composition
- 13 Solution to Equations with variable in exponential
- 14 Solve  $-x^2e^{-x} = 2xe^{-x}$ , etc.
- 15 Find Value of Trig Function, given point on terminal side of angle
- 16 Find Values of Trig Functions evaluated at angles whose reference values are "Familiar Angles"
- 17 Amplitude of Sinusoidal Function
- 18 Phase Shift of Trig Function
- 19 Period of Trig Function
- 20 Find vertical Asymptotes, etc.
- 21 Find Non-Vertical Asymptotes
- 22 Rewrite Logarithmic Expressions
- 23 Solve Trig Equations & Exponential Functions
- 24 Build polynomial with known zeros
- 25 Evaluate a Difference Quotient
- 26 Given a Right Triangle Find a side or an angle
- 27 Solve a non-Right Triangle
- 28 Function Transposition
- 29 Even and Odd Functions
- 30 Find Zeros of Polynomial
- 31 Simplify Complex Number Expression
- 32 End Behavior of polynomial functions
- 33  $\ln(x)$  and  $e^x$  as inverse functions
- 34 Coordinates of points on unit circle corresponding to Familiar angles
- 35 Graphs of Trig Functions
- 36 Graphs of inverses of Trig Functions
- 37 Find Quadrants of angle given trig function signs
- 38 Simplify Trig Expressions
- 39 Intermediate Value Theorem for continuous functions
- 40 Solve Triangles