

Math 240 Final Exam Study Guide

- Recall basic concepts in geometry and algebra such as parallel lines, Pythagorean Theorem, Distance Formula, functions and angles
- Find values of trigonometric (circular) functions using definitions and identities
- Find trigonometric function values of acute angles
- Use reference angles and c-terminal angles to find trigonometric function values
- Solve applications involving right triangles
- Convert angle measures (degrees, radians, revolutions)
- Solve applications of radian measure: arc length, sectors, linear and angular velocity
- Find trigonometric function values of real numbers
- Graph any trigonometric (circular) function identifying period, shifts, appropriate amplitude or equation of asymptote
- Recall and use trigonometric identities: fundamental (Pythagorean, quotient, reciprocal), co-function, negative, sum and difference, double-angle, and half-angle
- Verify trigonometric identities
- Solve trigonometric equations
- Evaluate inverse trigonometric expressions
- Use Law of Sines and Law of Cosines to solve oblique triangles
- Find resultant vectors and angles between vectors
- Solve application of vectors: bearing, ground speed, air speed
- Convert complex numbers (rectangular form, trigonometric or polar form)
- Use Product and Quotient Rules to multiply and divide complex numbers
- Use De Moivre's Theorem to find powers and roots of complex numbers
- Graph polar equations