

Exam Title: 1211300 Trigonometry Honors

Courses Assessed by this Exam: Trigonometry Honors

Key Vocabulary: radian measure, angle of elevation, period, sinusoidally, range, asymptotes, Law of Cosines, magnitude, vector, initial point, terminal point, sin, cos, tan, sec, csc, cot, interval, denote, trigonometric form.

Student Tasks:

- Convert for degrees to radians
- Calculate exact values of trig expressions using special right triangles and the unit circle
- Use cofunction identities to determine equivalent expressions
- Use trig ratios and Pythagorean Theorem to solve right triangles
- Use trig ratios to evaluate additional trig expressions
- Use the Law of Sine and Cosine to solve problems
- Identify period, amplitude, range, and asymptote for trig functions given a graph/equation
- Create trig equations given key features in real world context
- Use inverse functions to find exact values of trig expression
- Solve trig functions on a given interval
- Use addition and $\frac{1}{2}$ angle formulas to find equivalent expression or solve problems
- Find the area of a triangle given $A = \frac{1}{2} ab \sin c$
- Calculate the component form and magnitude of a vector given the initial and terminal points
- Rewrite vectors as a unit vector
- Subtract vectors
- Multiply vectors by a scalar
- Determine equivalent expression, given complex numbers raised to a power (may use DeMoivre's Theorem)