MATH 1643

Top 12 Things to Know For Exam #3

Note: Due to popular demand, the sizes of these review sheets have been reduced from “Top 40 Things to Know” to “Top 12 Things to Know”. As a result, much detail was left out. This sheet is a good place to start studying because it includes all formulas and values to memorize and gives a good overall view of the material. It should not be used, however, as the only source of review!

1) Using properties of exponents and logarithms to solve exponential and logarithmic equations
2) Converting between degrees and radians/knowing the quadrant of any angle
3) Formulas for arc length and area of a circular sector (and know to only use radians!)
4) Domain, range, and period of sine, cosine, and tangent
5) Domain, range, and quadrant of output for arcsin, arccos, arctan
6) All basic identities: Pythagorean, reciprocal, quotient (tangent/cotangent)
7) All definitions for trigonometric functions (unit circle definitions, general circle definitions, right triangle definitions)
8) Trigonometric functions for all basic first quadrant values (and how to use reference angles to find the functions of any angle)
9) Formulas for negatives for all trig functions (i.e. even/odd properties and how to use them)
10) When to use Law of Sines (SAA, ASA, SSA); when to use Law of Cosines (SAS, SSS)
11) Finding the following features of a trigonometric function: domain, range, amplitude, period, phase shift, vertical shift, and reflection
12) Application problems: bearing and angles of elevation/depression