Assignments for Trigonometry: Dilsaver, 2012

A1. Read p. 126 – 132. p 133; 1-6, 9-12, 21-24, 25-28, 38, 39, 49-54, 59, 60

Radian Activity – This is the tape/string activity in the hallway, attempting to find an experimental answer to how many radii will fit into one circle.

A2. p 133; 7, 8, 41-44, 63-66, 69, 70, 74, 77-80, 85, 86, 89-92, 99**, 100**

Goals for A1 and A2

- estimate angle size in radians
- know 2π radians = 1 circle = 360^o and be able to use
- use "H bar" or "factor labeling" or "dimensional analysis"
- find complements & supplements in radians or degrees
- know that exact value means to leave in π *or* $\sqrt{\ }$ form, not decimal.
- be able to sketch angles correctly in standard position.
  - include a labeled coordinate grid.
  - label the x and y axis.
  - the positive x axis is ***always*** the initial side.
  - include an arrow to show the direction of rotation
  - always think of an angle as a ***rotation***
- convert decimal degrees to/from degrees- minutes- seconds.
- use $s = r \cdot \theta$ to relate arc length, radius, and radian angle measure. convert $s = r \cdot \theta$ to $v = r\omega$ and then use to compute angular velocity.

A2.5 Alg/Geo Review 1 posted online, and distributed in class.

A3. Read p 144 – 150, p 151; 1, 2, 8, 9, 14, 17, 18, 21, 23 – 26, 39-42, 62, 65, 71, 73, 74, 81.

- be familiar with the soh-cah-toa trig definitions, and able to use
- memorize the 30 – 60 – 90 and 45 – 45 – 90 triangles and use.
- be aware that an identity is an equation which is always true.
- find missing parts of a right angle triangle.

A4. Read p 137 – 141, p 142; 1-4, 5-8, 17-22, 28, 33-36, 41**, 42**, 47-52

- be familiar with the x, y, r definitions of trig functions, and able to use
- use either the unit circle approach or the triangle approach to find the trig function values for various angles in various quadrants
- review the domain concept and assess the domain of y = cos (x) and y = sin (x).
- be familiar with the concept of even and odd functions, be able to classify trig functions as either even or odd.

A5. Read p.155-160. p 161, 1, 2, 5-8, 11-14, 17-20, 25-28, 32, 42, 45-48, 68, 70 76

- compute the reference angle for any given angle
- find the six trig function values for an angle whose terminal side passes through a given point.
- tell which trig functions are positive and negative in each quadrant

A6. Read p 164 – 170. p 171 1-4, 7-10, 15, 16, 27, 28, 39, 40, 67

A7. More graphing practice. Read p 164 – 170, p 171 5, 6, 11, 12, 19-22, 25, 26, 29-32, 43 – 46, 61-64

A8. Graphing the sec(x), csc(x), cot(x) functions. Read p 175 – 181, p. 182; 1-12, 33, 38, 56, 57, 67, 68, 73, 74, 75, 77

A9. A happy review day. A review of inverse functions. Read p 103 – 108, p 109; 1-4, 14-18, 21, 22, 25, 26, 29-32, 33, 37, 39, 40, 43, 81

A10. Inverse Trig functions. Read p 186 – 189, p 192; 1-8, 21-26, 33, 34, 39, 40, 59, 71, 92, 96

A11. Solving triangles. Read p 196 – 201, p 202; 1-4 to nearest 0.1, 16, 27, 20, 29, 30, 34, 43,. Then on PAGE 209; 85, 86, 109-112

A12. Introduction to identities. read p 218 – 222, p 223: 4, 6, 15-17, 21-24, 29, 37, 41, 46, 57

A13. Proving identities. Read p. 226 – 230. p 231; 1-8, 11-18, 21, 23, 24, 26, 30, 33, 37-40, 43, 52

A14. Solving trig equations. Read p 233 – 239, p 239 5, 7-10, 13 – 17, 25 – 28, 35, 36, 52

A15. Sum and difference formulas. Read p 244 – 248, p 248 1-4, 9, 14, 22, 31, 39, 40 51, 56, 70