**REVIEW Problems: Honor’s Precalculus – Analytic Trigonometry**

Station 1: Verifying Identities

1. tan x sin x + cos x = sec x

2.) 

3.) sin2x cot2x+ cos2x tan2x = 1

4.) $\frac{\cos((x+y))}{cosxsiny}=coty-tanx$

Part 2: Exact Values: Find the exact value of the following expression:

1. cos 37.5°cos 7.5°

2.) 2 sin (π/12) cos (π/12)

1. Find the exact value of the expressions given that sec x = 3/2 and csc y = 3, and x and y are in quadrant I.

cos (y/2) sin (x + y)

**Part 3: Solving Equations:**

Solve each equation below.

1. 2sin2x– 5 sin x + 2 = 0
2. (tan x + √3)(cos x + 2) = 0

Solve #3 and #4 in the interval [0, 2π)

1. 4sin2x+ 2cos2x = 3
2. sinx = cos 2x 5.) $2\cos(2θ+1=0)$