Assignment #7-4 Secondary 3 Honors

PreCalculus Book: Pg. 274 5-16, 29, 30, 33, 34, 37, 38

Pg. 294 22, 23, 24, 29-36, 49-52, 57-62

Additional Problems:

1. Let θ be an angle in standard position. In which quadrant(s) can θ lie under the given conditions?

   a) sin θ is positive and tan θ is positive.

   b) sin θ is positive and cos θ is negative.

   c) tan θ is negative and cos θ is positive.

   d) cos θ and tan θ are positive.

   e) tan θ is negative and cos θ is positive

   f) cot θ is negative and sec θ is negative.

   g) sec θ is positive and csc θ is negative.

Solve the following equations:

2. $2^{4x+2} = 8^{x+2}$

3. $7^{9x} = 18$

4. $\log_5(3x+2) = 3$

5. $\log_6(x+9) + \log_6 x = 2$

6. $\dfrac{4}{x-2} + \dfrac{6x^2}{x^2-4} = \dfrac{3x}{x+2}$