Assignment #7-2 Secondary 3 Honors

PreCalculus Book: Pg 294 3, 9, 13, 37, 40, 45, 47, 53, 54, 56, 65, 67, 68, 77-80, 89(degrees only), 90(degrees only), 111, 120, 122, 123, 126

Additional Problems:

1. Write the equation of the line tangent to the graph of $f(x) = 4\sqrt[3]{x-1}$ at the point (2, 4). (Use your graphing calculator to get the slope.)

2. Solve the inequality $x^3 - x^2 - 6x > 0$.

3. Simplify: $\frac{y^5}{(y^2)^3}$

4. Find one positive and one negative angle coterminal to 210^o.

5. Simplify the following (factor first):

   a. $\frac{x^2+2x}{(x+4)} \cdot \frac{(x-3)}{x^2-x-6}$

   b. $\frac{3ab}{4x^2y} \cdot \frac{12xy^2}{6ab^3}$

   c. $\frac{x^2-5x}{x+2} \cdot \frac{x^2-2x-8}{3x-15}$

   d. $\frac{x^2-4x-5}{x+6} \div \frac{x^2-2x-15}{x^2+9x+18}$

Simplify each expression.

6. $\sqrt{8t^2} \cdot \sqrt{5rt^3}$

7. $6\sqrt{18} - 3\sqrt{50}$

8. $\left(3-4\sqrt{2}\right)\left(5-6\sqrt{2}\right)$