Assignment #9-4   **Secondary 3 Honors**

<u>**Precalculus Book:**</u>   Pg. 384   5, 12, 35, 36, 40, 41, 68, 71-74

<u>**Additional Problems:**</u>

1. Find the equation of a line that passes through the points (4,2) and (-8,5).

2. Find a new equation of the function, $f(x) = x^2$, that shifts 5 units to the left, 7 units down, stretches vertically 2 units, and flips over the x-axis.

3. Find the equation of a polynomial with these zeros: $4i, -4i,$ and $3.$ Leave your answer in standard form (this means multiply your factors).

4. Find $\cot\left(\arcsin\left(-\frac{5}{13}\right)\right)$ (Hint: Draw a triangle and remember the preset intervals for arc functions.)

5. Find f^{-1} if $f(x) = 3x^2 + 1.$ Is $f(x)$ one-to-one?