MATH 1210 Summer 2013 Quiz 2

Surname: _____

Given Name: _____

Student ID: _____

1. Find $(-1 + i\sqrt{3})^8$. Put your answer in Cartesian form. [7]

2. Use the Remainder Theorem to find the reminder when $P(x) = 2x^2 + 4$ is divided by $2x + (i + 1)$. [4]

3. For the polynomial $P(x) = 3x^3 - 2x^2 + 11x + 4$, find

   (a) Find the possible rational roots using the rational root theorem.[2]

   (b) Given that $P(-1/3) = 0$, solve for all roots of $P(x)$. [7]