**1F Complex Roots of Cubics & Quartics**

1. Given that -1 is a root of the equation:

$$x^{3}-x^{2}+3x+k=0$$

Find the other two roots of the equation.

Notes on Solutions for Cubic & Quartic Equations

1. Given that 3 + i is a root of the quartic equation:

$$2x^{4}-3x^{3}-39x^{2}+120x-50=0$$

Solve the equation completely.