

Polynomials with Imaginary Roots #1-4

1. Write the equation of the polynomial with the given zeros in standard form. You need to multiply out the factors.

$$x = 4, \text{ and } x = 6i$$

2. Write the equation of the polynomial with the given zeros in standard form. You need to multiply out the factors.

$$x = -5, \quad x = -2 \text{ and } x = -3i$$

3. Find the remaining zeros of the polynomial and write the equation in factored form.

$$f(x) = x^3 - x^2 + 16x - 16$$

$$x = 4i$$

4. Find the remaining zeros of the polynomial and write the equation in factored form.

$$f(x) = x^4 - x^3 + 7x^2 - 9x - 18$$

$$x = 3i$$