



1. Assume the following equation:

$$x^2 = x \sin(x^2) + 3$$

Write down a computer code for solving the equation for the following cases:

- (a) Find the positive root of the equation, using bisection method.
- (b) How faster is the method of false position.

Suppose that $\varepsilon = 10^{-5}$ for convergence.

2. Assume the following polynomial:

$$P(x) = (x - 3)(x + 4)(x^2 + 1)$$

Write down a computer code for find all the roots the above polynomial.