

--- Cheybesev Method ---

1.quadratic.c

$$f(x) = x^2 + 5x + 2$$

Input: guess = 4  
Ouput: root = -0.438447

Input: guess = -197  
Ouput: root = -4.561553

2.cos.c

$$f(x) = 3x - \cos x - 1$$

Input: guess = 5  
Output: root = 0.607102

3.log.c

$$f(x) = x \log x - 1.2$$

Input: guess = 152  
Output: root = 2.740569

--- Newton Method ---

1.quadratic.c

$$f(x) = x^2 + 5x + 2$$

Input: guess = 165  
Ouput: root = -0.438447

Input: guess = -198  
Ouput: root = -4.561553

2.cos.c

$$f(x) = 3x - \cos x - 1$$

Input: guess = 765  
Output: root = 0.607102

3.log.c

$$f(x) = x \log x - 1.2$$

Input: guess = 236  
Output: root = 2.740649

--- Regula Falsi Method ---

1.quadratic.c

$$f(x) = x^2 + 5x + 2$$

Input: a = -10, b = 10  
Ouput: root = -0.438447

Input: a = -7, b = -4  
Ouput: root = -4.561553

2.cos.c

$$f(x) = 3x - \cos x - 1$$

Input: a = -10, b = 10  
Output: root = 0.607102

3.log.c

$f(x) = x \log x - 1.2$

Input: a = 998837, b = 13  
Output: root = 2.740649

--- Muller Method ---

Input in Muller method is the set of approximates to the root.

1.quadratic.c

$f(x) = x^2 + 5x + 2$

Input: -1, -3, -4  
Output: root = -0.438447

Input: 1, 2, 3  
Output: root = -4.561553

2.cos.c

$f(x) = 3x - \cos x - 1$

Input: 1, -1, 2  
Output: root = 0.607111

3.log.c

$f(x) = x \log x - 1.2$

Input: 2.1, 2.7, 2  
Output: root = 2.740649

--- Secant Method ---

1.quadratic.c

$f(x) = x^2 + 5x + 2$

Input: a = -10, b = 10  
Output: root = -0.438447

Input: a = -7, b = -4  
Output: root = -4.561553

2.cos.c

$f(x) = 3x - \cos x - 1$

Input: a = -10, b = 10  
Output: root = 0.607102

3.log.c

$f(x) = x \log x - 1.2$

Input: a = 98127, b = 1836  
Output: root = 2.740646