**CS Math Society**

**Quadratic Formula Calculator**

# **Team members**

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# **Submitted to**

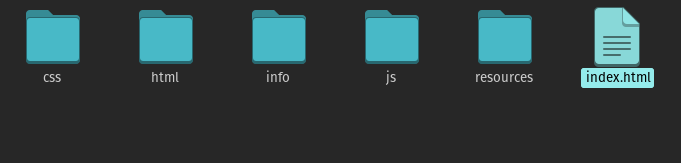
Dr. Eng. Mostafa Reda A. El Tantawi

# **Project Description**

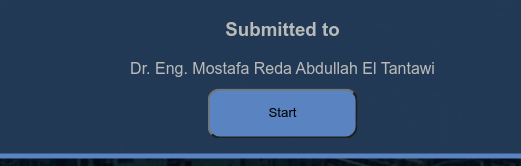
This tool calculates the roots of the quadratic equations using the general formula. The tool also works with linear equations. The user inputs the coefficients of and the constant.

# **Using the tool**

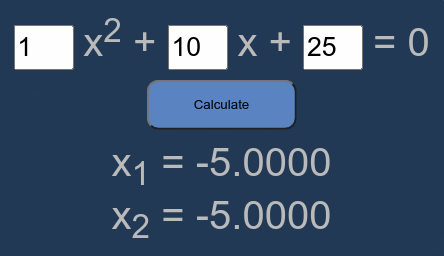
**Step 1:** Open **index.html**, if it doesn't open in a web-browser choose "open with" and your preferred browser

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**Step 2:** The tool will open in a web-browser, click **start**.

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**Step 3:** Enter the coefficients of and the constant in the empty text boxes. You can leave the text box empty if the desired value is zero.



# **Pseudocode**

0. start (calculate button)

1. int a, b, c

2. string x1, x2

3. if textbox\_a is empty

3.1 x1 = -c / b, x2 = N/A

3.2 exit

4. if textbox\_b is empty

4.1 b = 0

5. if b ^ 2 - 4ac < 0

5.1 x1 = -b / 2a + (sqrt(-(b ^ 2 - 4ac)) / 2a)i

5.2 x2 = -b / 2a - (sqrt(-(b ^ 2 - 4ac)) / 2a)i

5.3 exit

6. x1 = (-b + sqrt(b ^ 2 - 4ac)) / 2a

7. x2 = (-b - sqrt(b ^ 2 - 4ac)) / 2a

8. exit