

# TUGAS 3

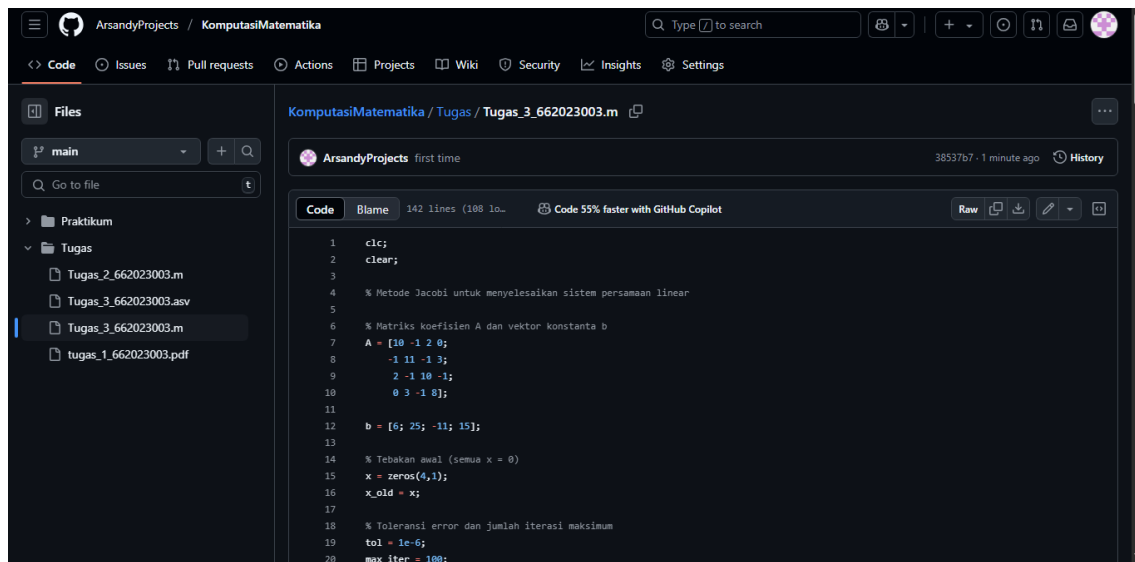
## KOMPUTASI MATEMATIKA

Nama : Arsandy Jati Pratama

Nim : 662023003

UserName : ArsandyProjects

Tuga 3 :



The screenshot shows a GitHub repository named 'KomputasiMatematika' by user 'ArsandyProjects'. The file 'Tugas\_3\_662023003.m' is open, displaying a MATLAB script. The script implements the Jacobi method for solving a system of linear equations. It includes comments in Indonesian explaining the steps: clearing the workspace, defining the coefficient matrix A and the constant vector b, initializing the solution vector x, and iterating until the error is within a specified tolerance (1e-6) or the maximum number of iterations (100) is reached.

```
1 clc;
2 clear;
3
4 % Metode Jacobi untuk menyelesaikan sistem persamaan linear
5
6 % Matriks koefisien A dan vektor konstanta b
7 A = [10 -1 2 0;
8      -1 11 -1 3;
9      2 -1 10 -1;
10     0 3 -1 8];
11
12 b = [6; 25; -11; 15];
13
14 % Tebakan awal (semua x = 0)
15 x = zeros(4,1);
16 x_old = x;
17
18 % Toleransi error dan jumlah iterasi maksimum
19 tol = 1e-6;
20 max_iter = 100;
```