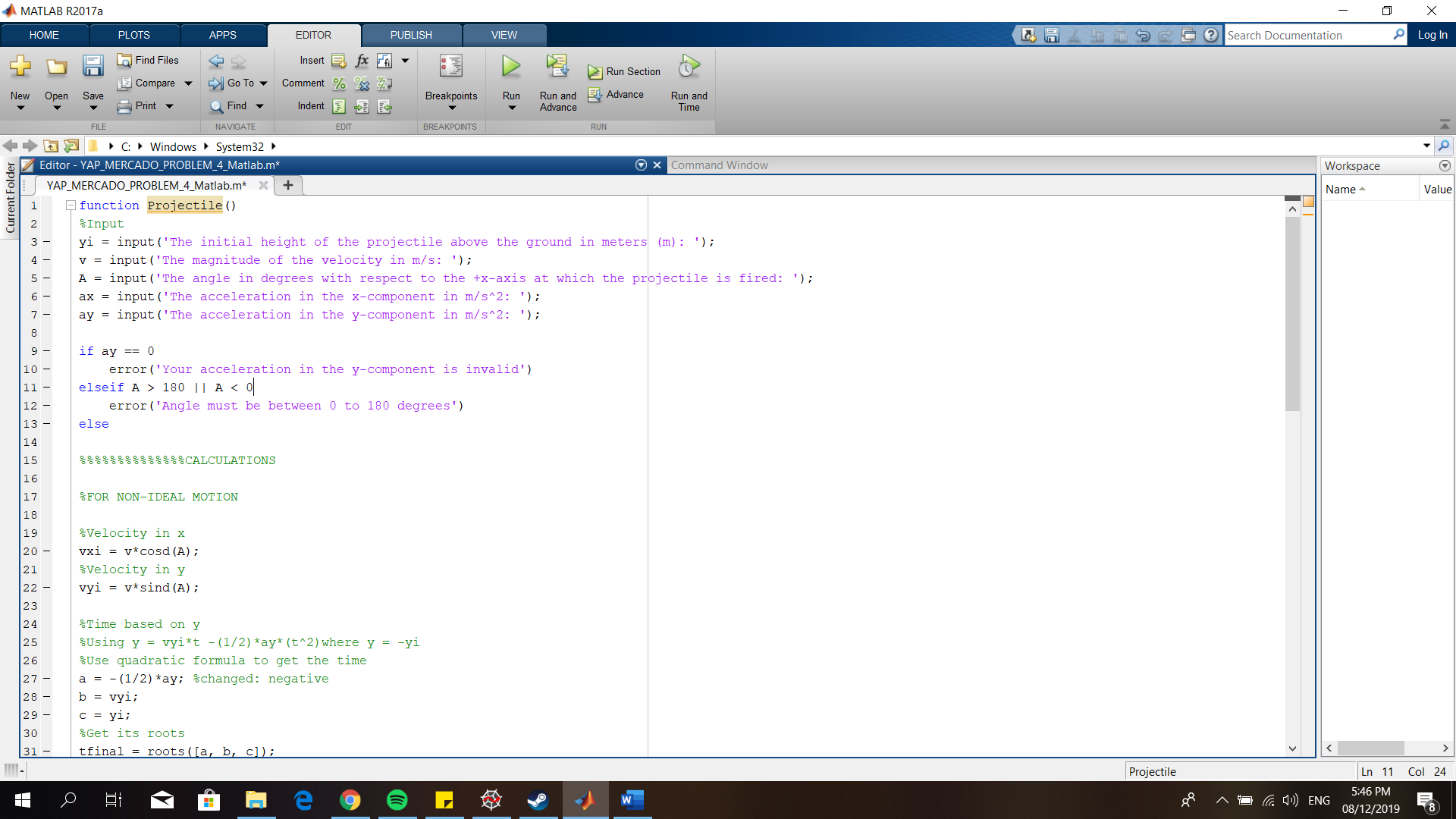
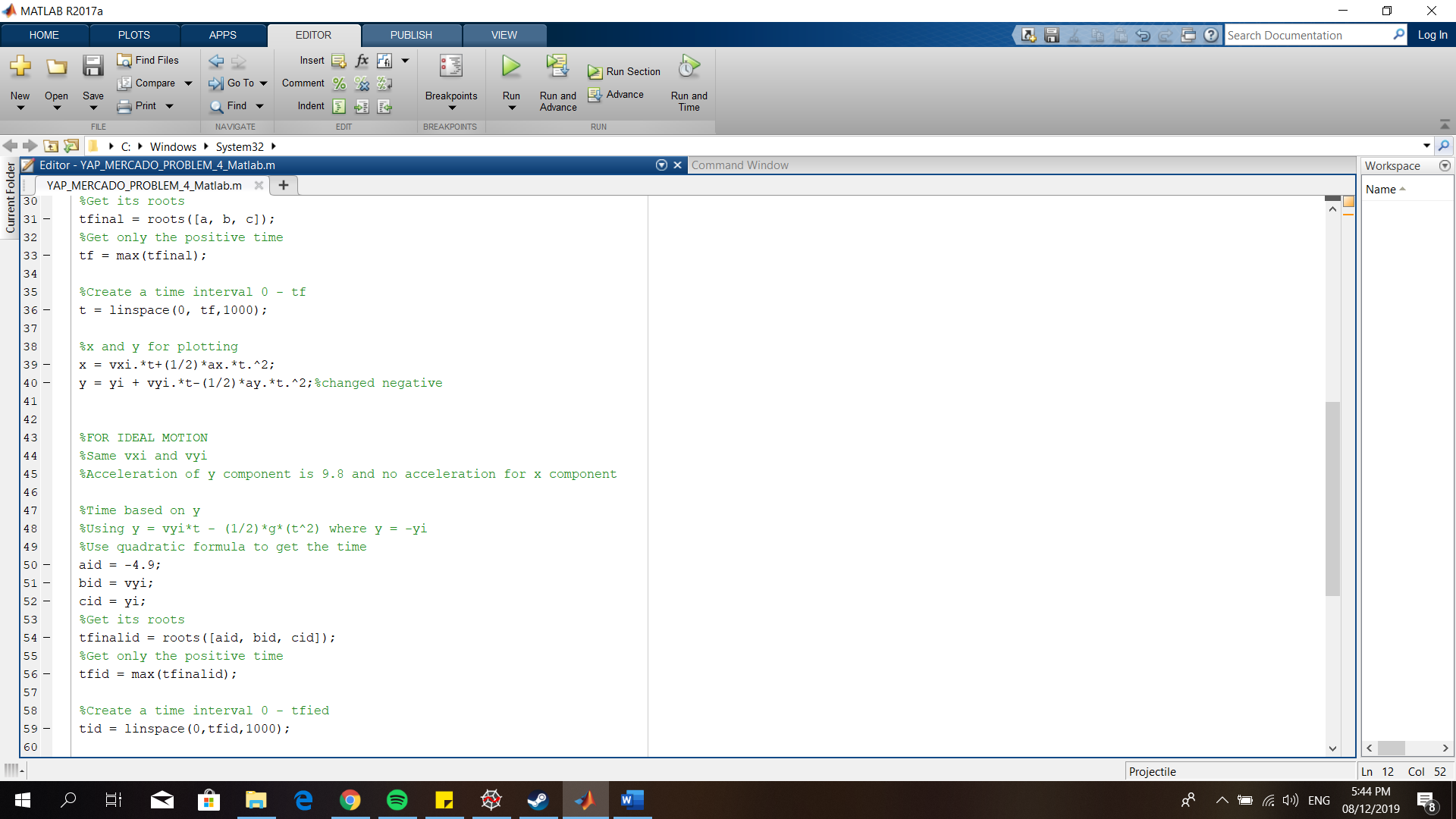
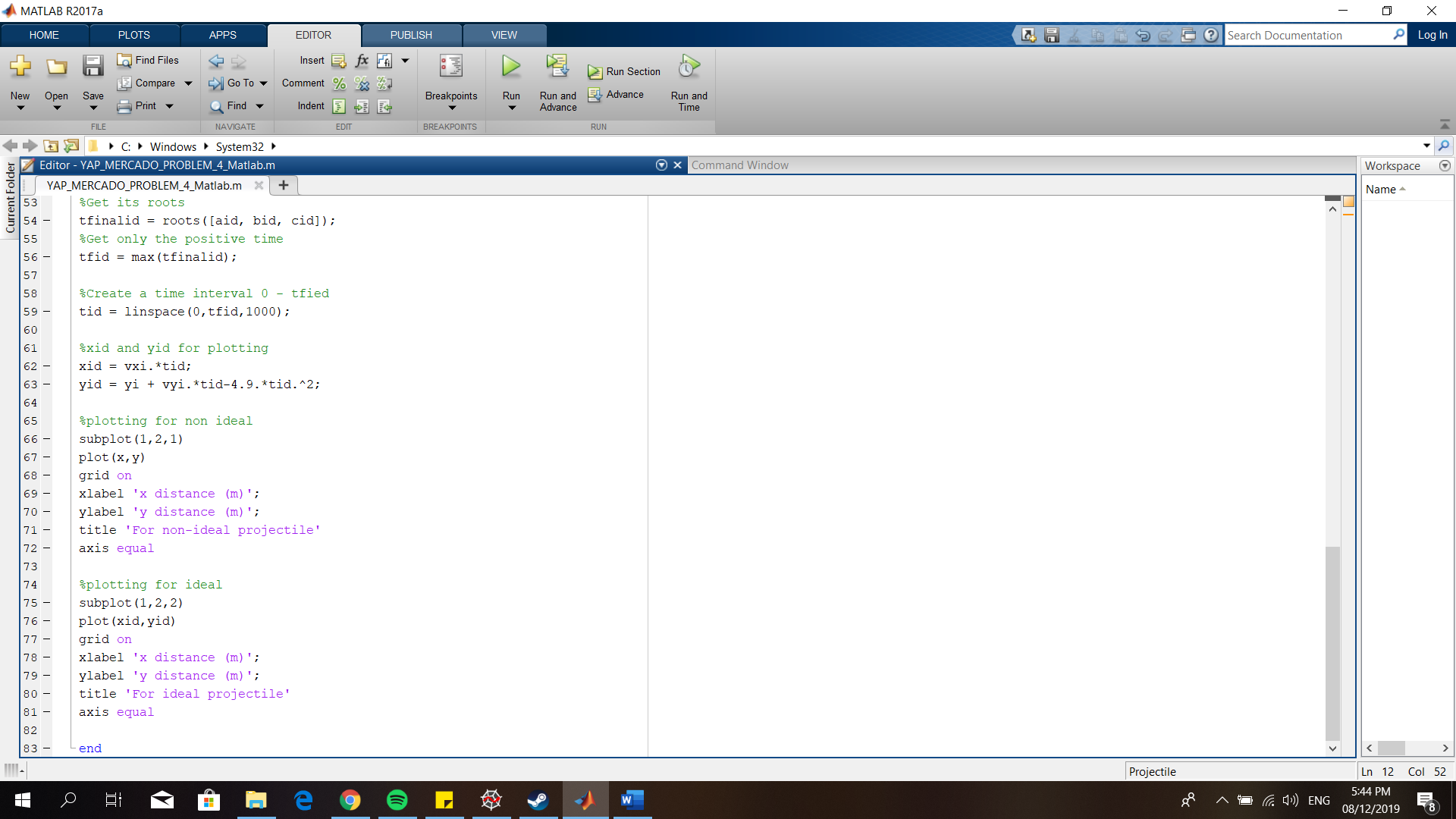
**Problem 4 (MATLAB Solution)**

1. **Working Code**





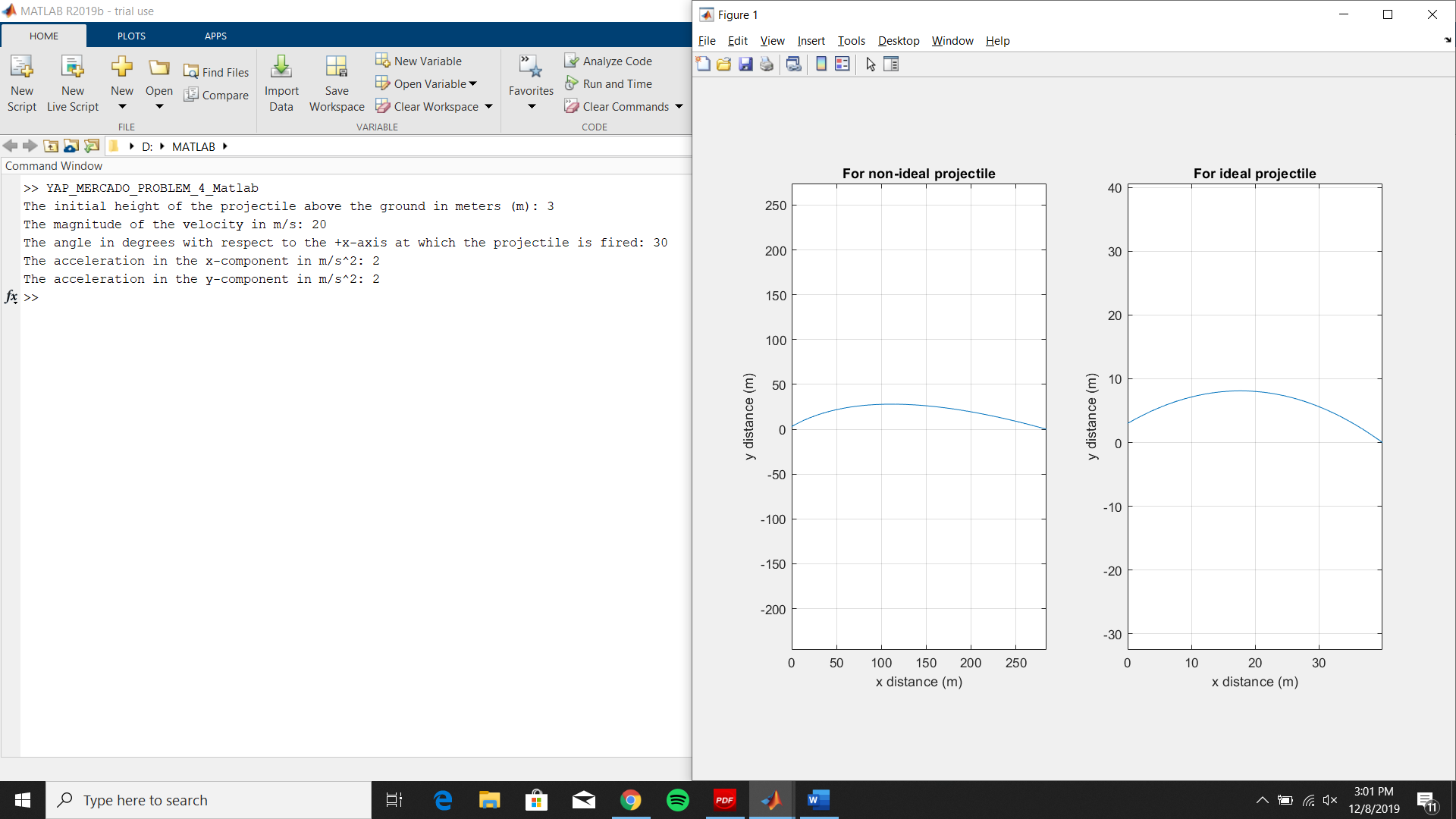


1. **Execution of Program**

B.1. Run the program. The program will ask values that are needed in graphing the projectile motion for ideal and non-ideal motions. Input the desired values.

Values : initial height = 3, velocity = 20, angle = 30, acceleration in x = 2, acceleration in y =2.

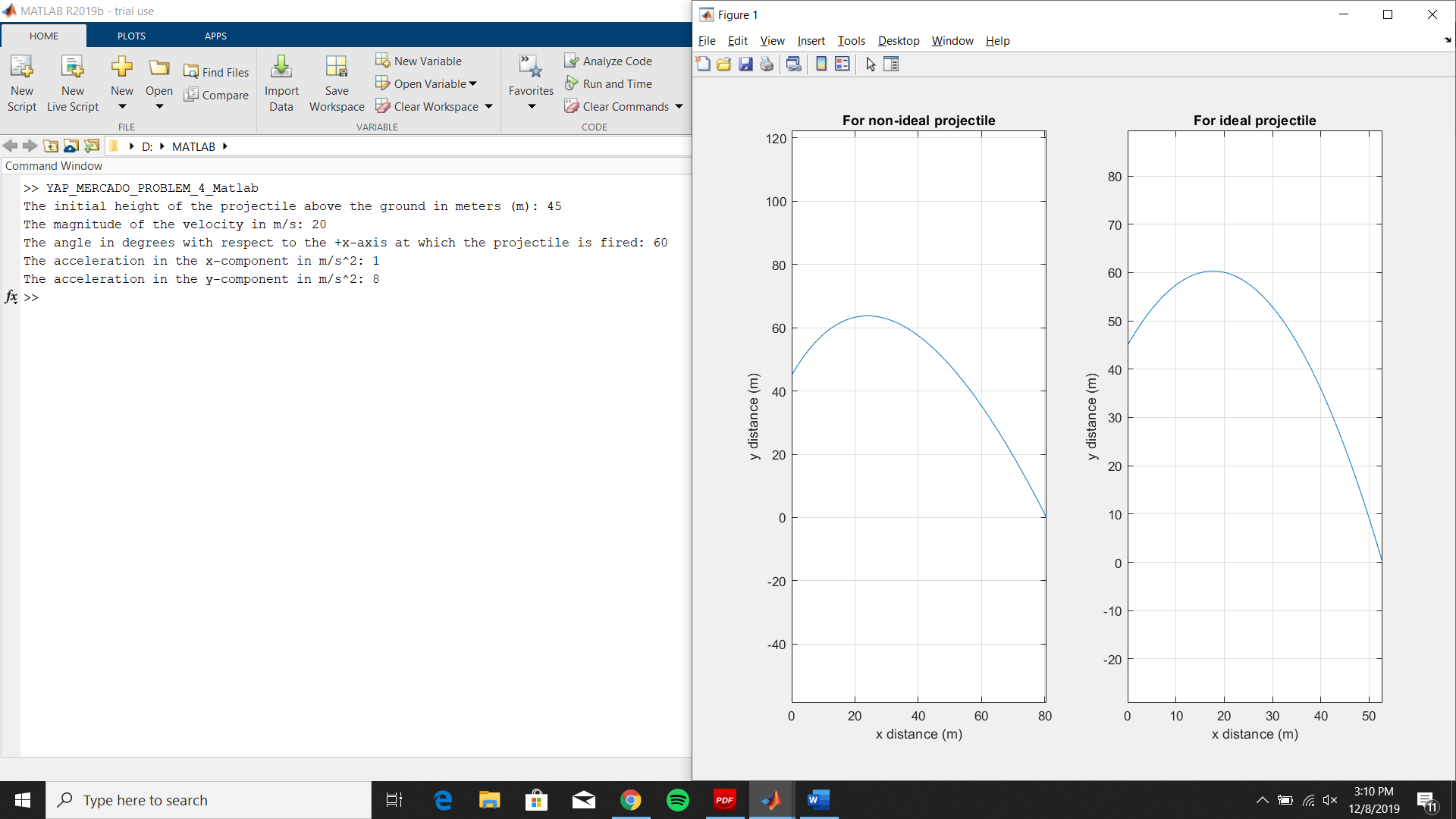
The graph is displayed for ideal and non-ideal motions.



B.1. Run the program again and change the values.

Values : initial height = 45, velocity = 20, angle = 60, acceleration in x = 1, acceleration in y =8

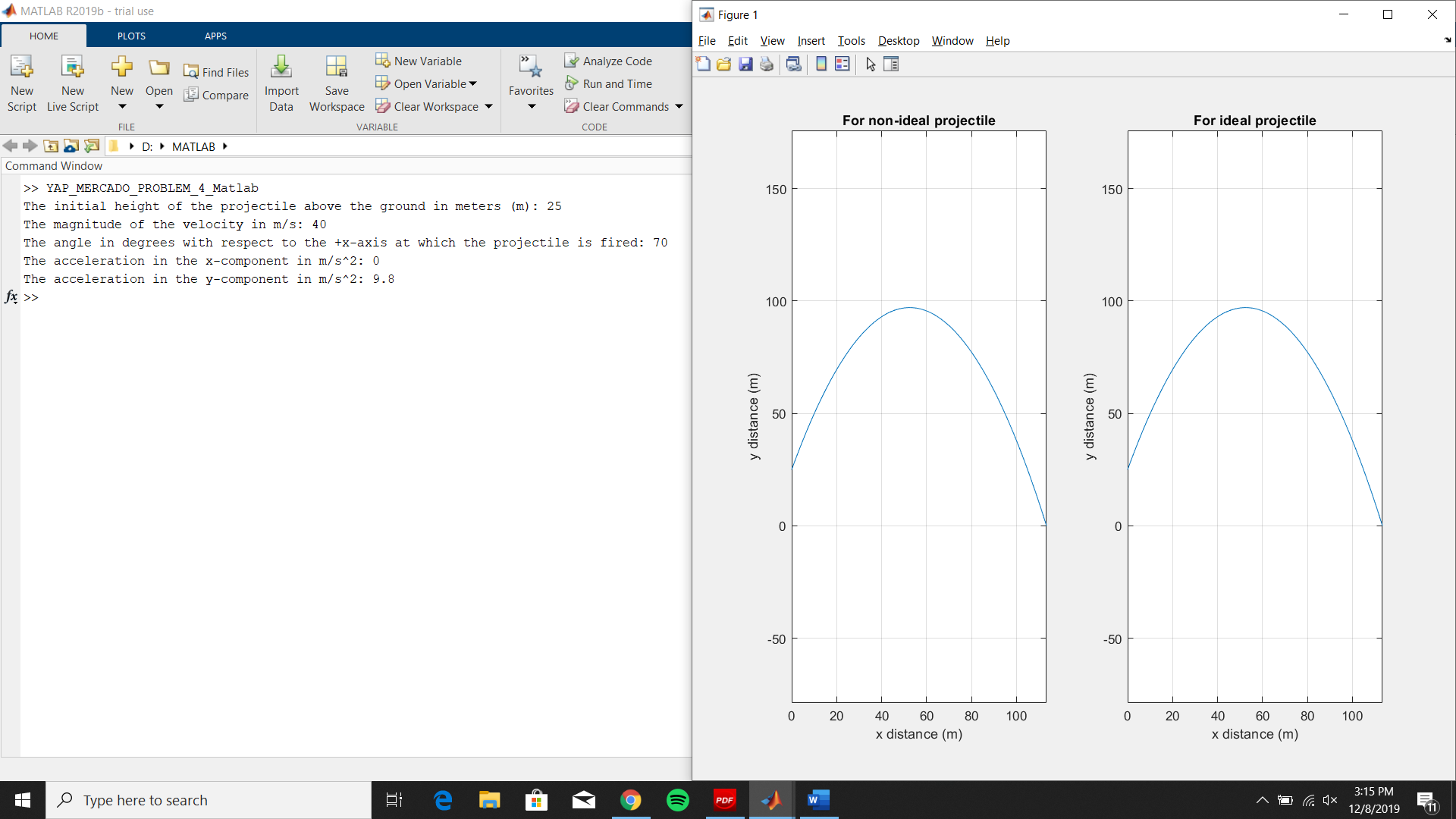
The graph is displayed for ideal and non-ideal motions.



B.3. Run the program again and change its values.

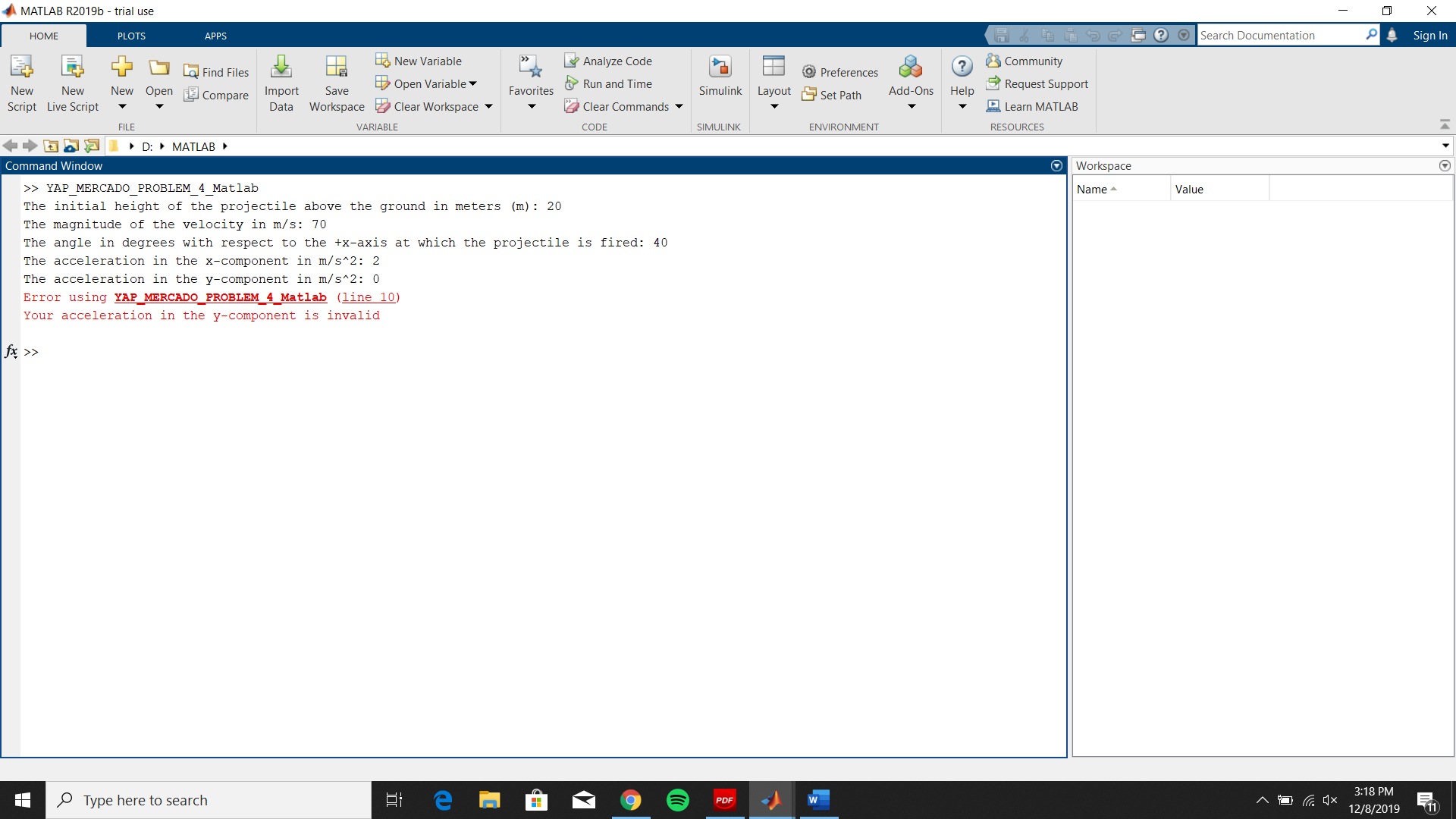
Values : initial height = 25, velocity = 40, angle = 70, acceleration in x = 0, acceleration in y = 9.8

The graph is displayed for ideal and non-ideal motions.



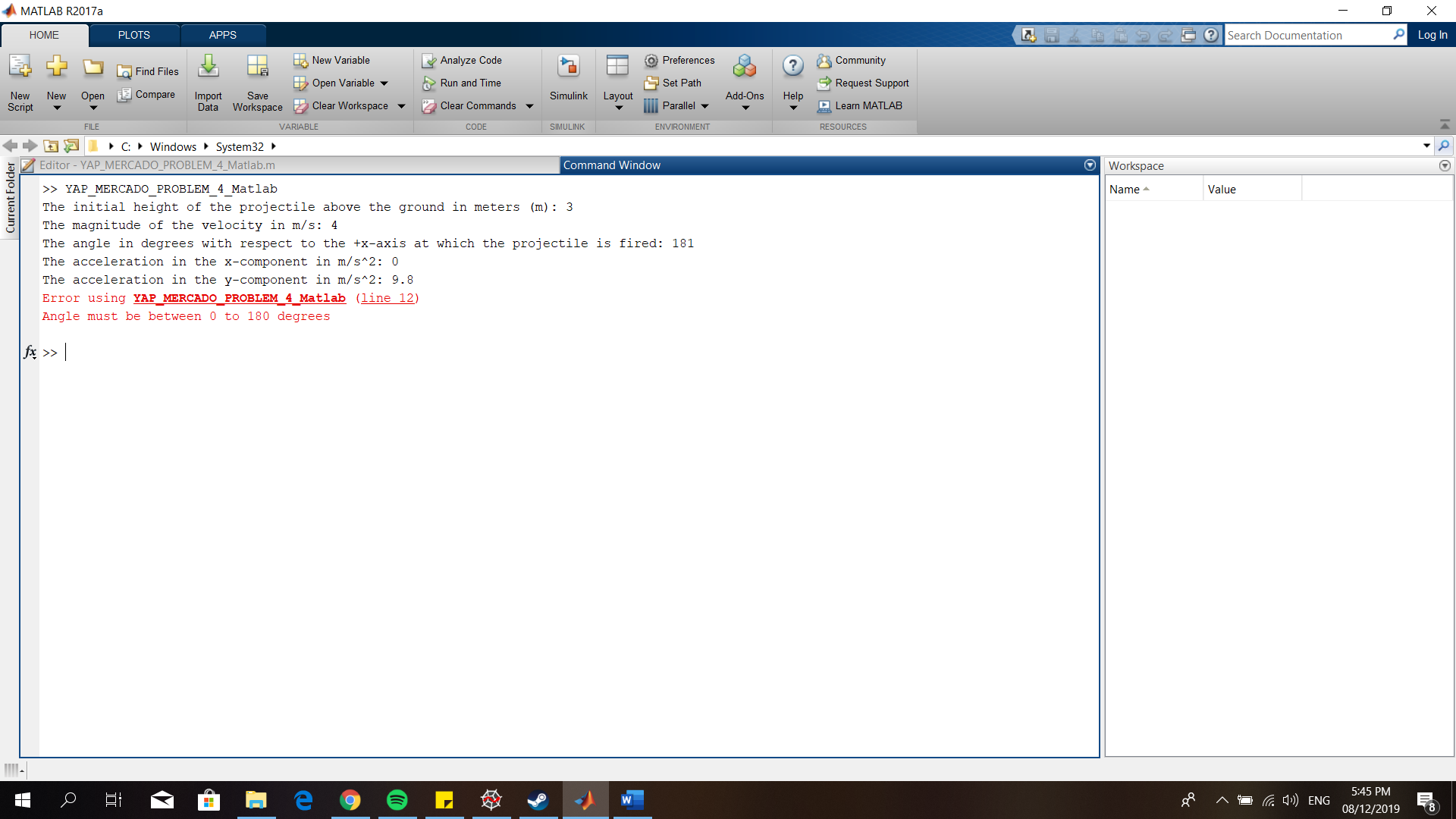
B.4. Run the program again and input invalid acceleration in y, ay= 0.

An error occurred since a 0 acceleration in y is invalid.



B.5 Run the program and input an invalid angle in degrees, A = 181

An error occurred since the input angle was more than 180 degrees



B.6 Run the program and input a different invalid angle in degrees, A = -45

An error occurred since the input angle was negative or less than 0

