

```
yimaquiz2.m x +  
- commandwindow  
- clear  
- clc  
- close all  
- format short g  
- mdata=xlsread('onlinequizdata','fluiddata')  
- x=mdata(1:2:250,1)  
- y=mdata(1:2:250,2)  
- plot(x,y)  
- grid on  
- grid minor
```

I

Command Window

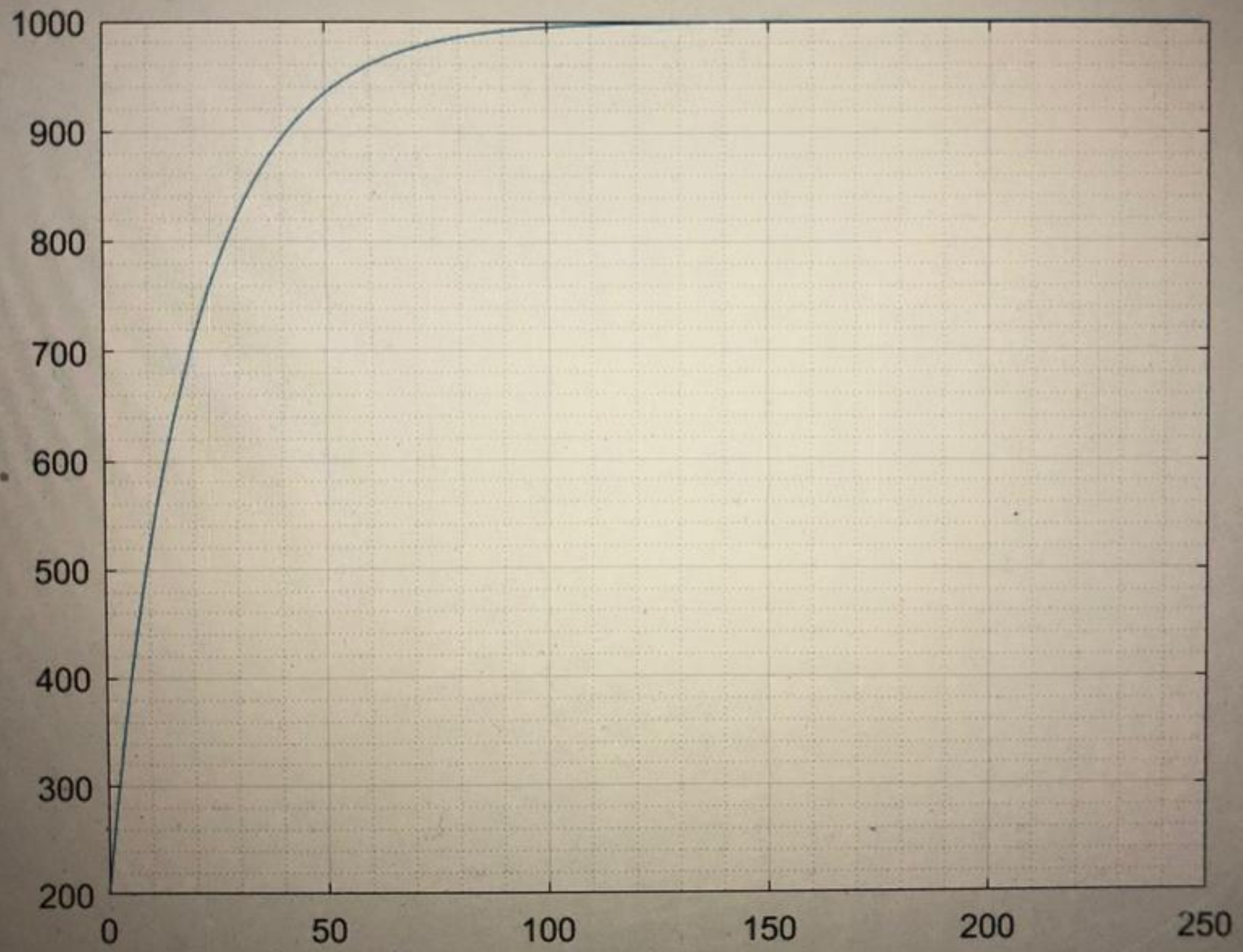
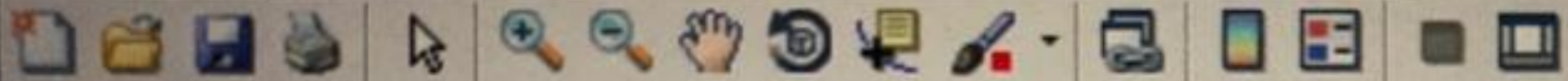
86
88
90
92
94
96
98
100
102

EDITOR

Figure 1



File Edit View Insert Tools Desktop Window Help



ts ▶ MATI

Ed

yi

1 -

2 -

3 -

4 -

5 -

6 -

7 -

8 -

9 -

10 -

11 -



$$\frac{dT}{dt} = L(C - 25)$$

$$\frac{dT}{T-25} = k dt$$

$$T-25$$

$$\ln(C-25) = kt + c$$

$$T-25 = e^{kt} + c$$

$$T = T_0 e^{kt}$$

$$T = T_0 e^{kt} + 25$$

At $t=0$

$$10 = T_0 + 25$$

$$10 - 25 = T_0$$

$$T_0 = -15$$

$$T = -15e^{kt} + 25$$

$$20 = -15e^{kt} + 25$$

$$\frac{-5}{-15} = \frac{-15e^{kt}}{-15}$$

$$0.33 = e^{kt}$$

$$\rightarrow 1.09 = kt$$

$$k = -0.219$$

$$T = -15e^{-0.219t} + 25$$

$$T = -15e^{-0.21t} + 25$$

Chieze, F. Chinonso

18/ENGO1/006

AEROSPACE ENG.

MRS ABNEZ AZIANUKA
CHIEZE OKORIE
DIED ON 4TH OCT. 2019
1947 - 2019