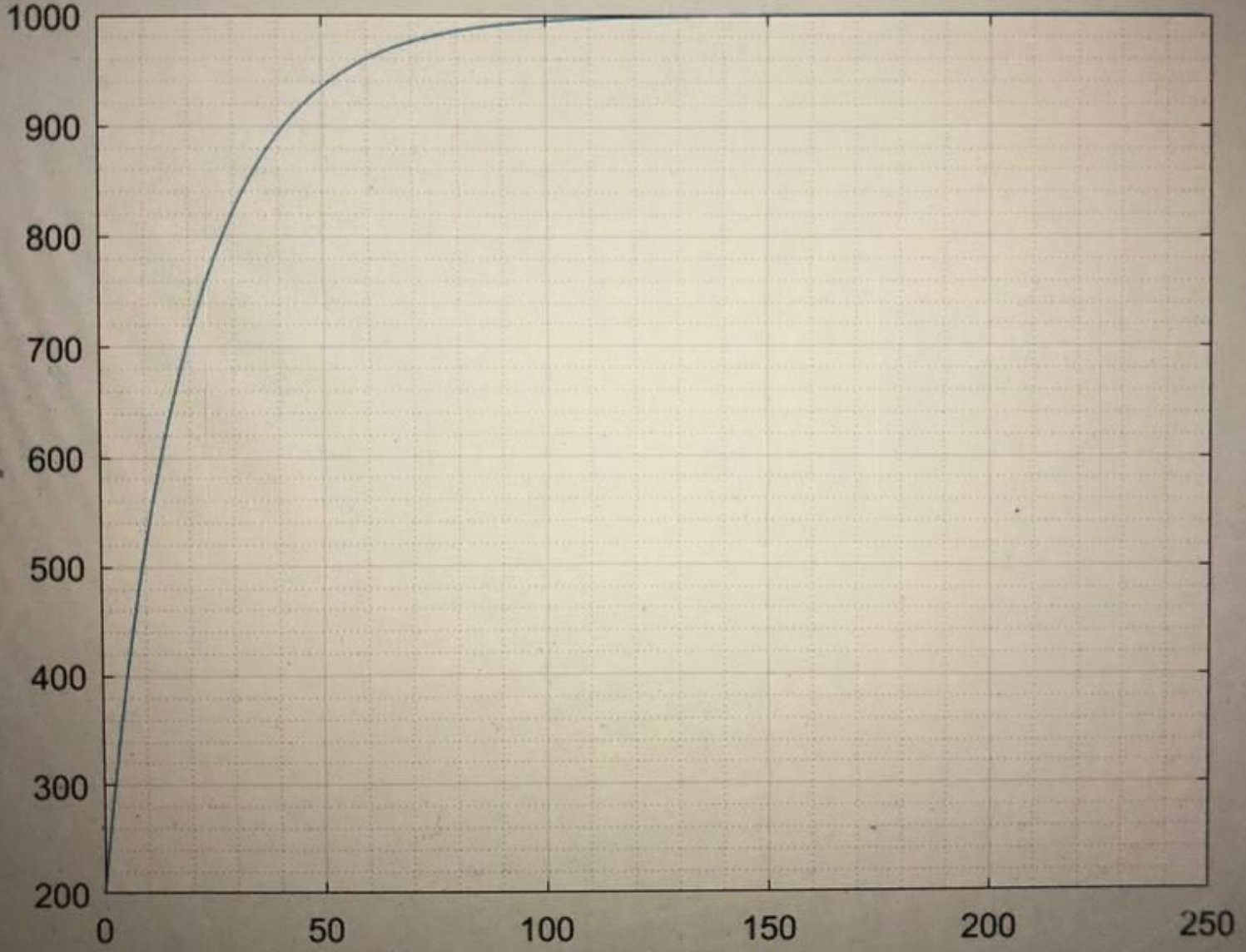
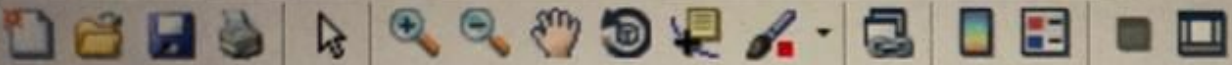


EDITOR Figure 1

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```
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

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script

Ln 11 Col 11

KFOHABI KHABIR

1815071002

PETROLEUM ENGINEERING

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

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

$$T-25 = e^{kT+C}$$

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

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

At $t=0$

$$10 = T_0 + 25$$

$$10 - 25 = T_0$$

$$T_0 = -15$$

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

$$\frac{-5}{+5} = \frac{-15 e^{kT}}{+5}$$

$$0.33 = 0^{kT}$$

$$k = -0.219$$