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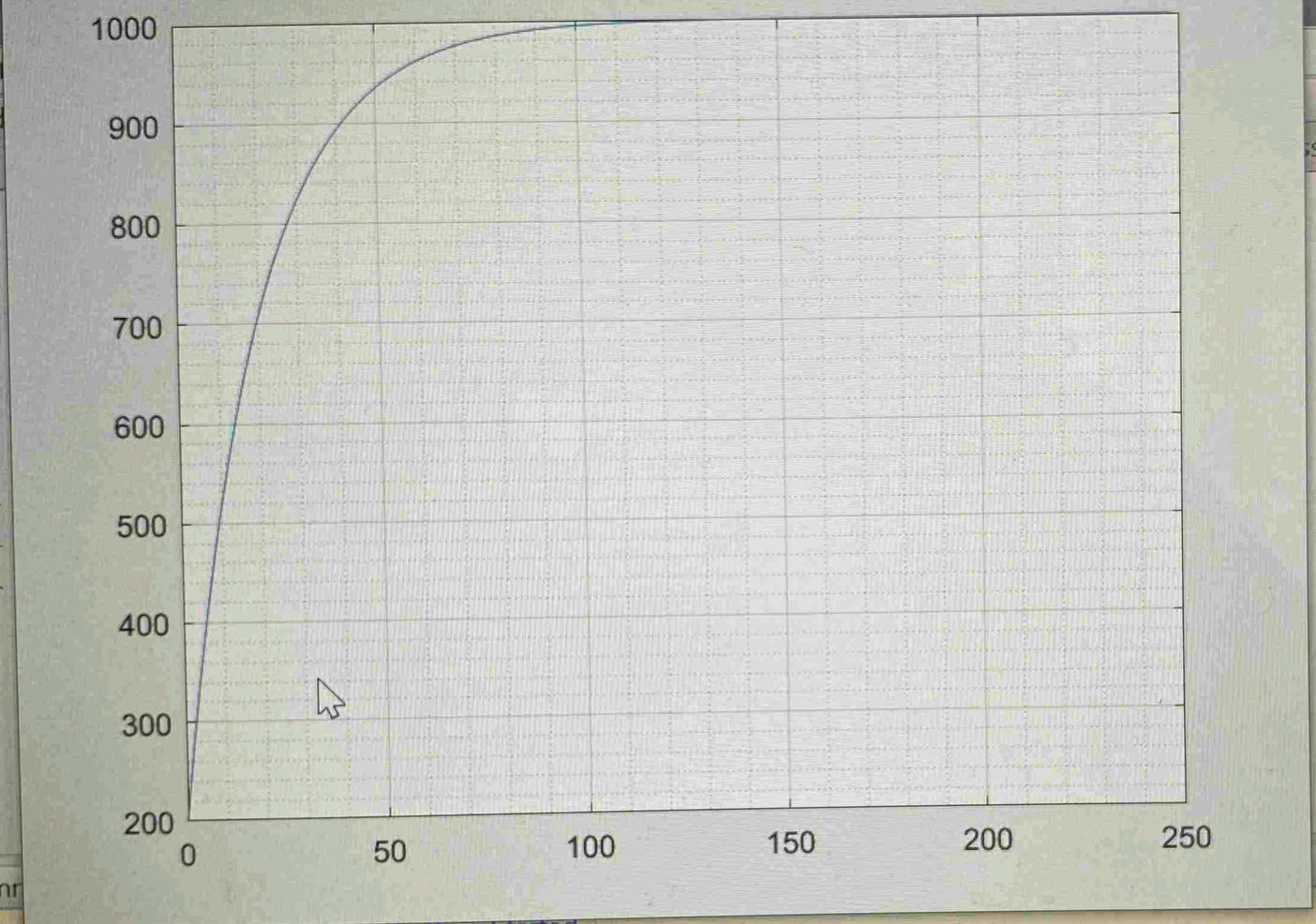
NAVIGATE

MATLAB ▸ R2017a

Figure 1

File Edit View Insert Tools Desktop Window Help



Search Documentation

s3.m simulation1.m onlinequiz.m

New to MATLAB? See resources for Getting Started.

```
999.9951
999.9956
999.9960
999.9964
999.9967
```

fx >>

9:44 AM
4/27/2020

Indent

Breakpoints

Run

Run and Advance

Advance

Run and Time

EDIT BREAKPOINTS RUN

R2017a ▸ bin ▸

Editor - C:\Users\user\Documents\onlinequiz.m

+2 explanationquiz.m | cuexample.m | ca.m | confused.m | classwork.m | onlineass3.m | simulation1.m | onlinequiz.m

```
1 -  commandwindow
2 -  clear
3 -  clc
4 -  close all
5 -  mdata=xlsread ('onlinequizdata', 'fluiddata')
6 -  x=mdata (1:2:250,1)
7 -  y=mdata (1:2:250,2)
8 -  plot (x,y)
9 -  grid on
10 -  grid minor
```

Command Window

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```
    999.9951
    999.9956
    999.9960
    999.9964
    999.9967
```

fx >>

9:44 A
4/27/20

Name: Usman Usman Idris

19/ENG06/069

Solution.

$T - T_0 = 20 - 10$

$= 10^{\circ}C$

Time to reach $25^{\circ}C$

$= \frac{T_2 - T_0}{T_1 - T_0} \times 5$

$= \frac{25 - 10}{20 - 10} \times 5$

$= \frac{15}{10} \times 5$

$=$ 7mins 27seconds after the thermometer was inserted into the system

$\ln(T - 10) = kt + C$

$T = e^{kt} T_0 + 10$

$T = 15e^{kt} + 10$

$20 = 15e^{5k} + 10$ at five minutes

$k = 0.081$

$T = 15e^{0.081t} + 10$