

(1)  $T_0 = 10^\circ\text{C}$  &  $T_{300} = 20^\circ\text{C}$  ;  $t = 30$  in sec.

$$\Delta T = 20 - 10 = 10^\circ\text{C}$$

$$T = 24.9^\circ\text{C} ; \Delta T = 24.9 - 10 = 14.9^\circ\text{C}$$

$$\therefore 10 = 300sec$$

$$14.9 = x$$

$$10 \times (300) (14.9)$$

$$10 \times 4470$$

$$x = \frac{4470}{10} = 447s //$$

$$\therefore x = 447s$$

The time required for the thermometer to practically reach system temperature is 447s //

②

Command window

clc

clear all

mdata = xlsread('onlinequiz\data\book1.xlsx', sheet)

x = mdata(1:2:259, 1)

y = mdata(1:2:259, 2)

plot(x, y)

grid on

grid minor

