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Initial temp = 10°C at 0°C

$t_{\text{min}} = 300 \text{ Sec}$

actual temp = 25°C

$t_{\text{min}} = 24.9$

~~at $t_{\text{min}} = 20 \text{ Sec} = 22.5$~~

~~\bar{t}~~

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

Find $\bar{t} = 24.9^{\circ}\text{C}$

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

10°C to 300 Sec

$14.9^{\circ}\text{C} - x$

$10^{\circ}\text{C} = 4470$

~~$10^{\circ}\text{C} = 447$~~

$x = 4475$

$x = 7 \text{ mins } 27.5 \text{ s}$



Date.

Page.

2a Command window - 86, 88, 90, 92, 94, 96

Clear 98, 100, 102

clc

close all

format short g

mdata = xlsread('OnlineQuizData.xlsx',
data')

X = mdata(1:2:250, 1)

Y = mdata(1:2:250, 2)

plot(X, Y)

grid on

axis minor



Date.

Page.

26

$$\ln(C_T - I_0) = Kt + C$$

$$T = e^{kt} T_0 + I_0$$

$$20 = 15e^{5k} + I_0$$

$$20 = 15e^{5k} + I_0 \dots \dots \dots S_{n+2}$$

$$K = 0.081$$

$$T = 15e^{0.081t} + I_0$$

94, 9b

Khair