

Kfordu Benedict

18/ENC126/036

Mechanical engineering

Maths quiz.

1. $T_1 = 10^\circ\text{C}$ $T_2 = 20^\circ\text{C}$

It takes 5mins to get from T_1 to T_2 .

ie $T_2 - T_1 = 10^\circ\text{C}$ at 5mins.

to go from 20°C to 24.9°C

time will be; 5mins = 10°C

$$x \text{ mins} = 4.9^\circ\text{C}$$

(because temperature increases from 20°C to 24.9°C

ie by 4.9°C .)

$$5 \text{ mins} / 10^\circ\text{C}$$

$$x \text{ mins} / 4.9^\circ\text{C}$$

$$5 \times 4.9 = 10x$$

$$24.5 = 10x$$

$$x = \frac{24.5}{10}$$

$$x = 2.45 \text{ ~~mins~~ ie 147 \text{ secs}}$$

Total time for ~~the~~ temperature to go from 10°C to 24.9°C will be given as:

$$5 + 2.45 = 7.45 \text{ mins}$$

$$NR \text{ 3mins} = 300 \text{ secs}$$

$$2.45 \text{ mins} = 147 \text{ secs}$$

$$300 + 147 = 447 \text{ secs}$$

$$447 \text{ secs} = 7 \text{ mins } 27 \text{ seconds}$$

ATLAB

Editor - C:\Users\yimat\Documents\MATLAB\yimaquiz2.m

```
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
fx 102
```

script Ln 11 Col 11

