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MECHANICAL ENGINEERING

MATHS QUIZ

Initial temperature (IT) = 10°C

Second temperature (ST) = 20°C

Actual temperature (AT) = 25°C

Soys temperature (CT) = 24.9°C

Time from IT to ST = 5mins = 300secs

2 Time (2T) = ??

IF from IT to ST = $20^{\circ}\text{C} - 10^{\circ}\text{C} = 10^{\circ}\text{C}$

and it takes 5mins to cover 10°C

$5^{\circ}\text{C} = \frac{1}{2}$ of 5mins

= $5^{\circ}\text{C} = 2.5$ mins (to move from 20°C to ~~25~~ 25°C)

$25^{\circ}\text{C} = 2.5$ min

$\therefore 24.9^{\circ}\text{C} = ?$

= $\frac{25 \times 24.9}{2.5}$ (2.5 min = 150secs)

2.5

= $\frac{150 \times 24.9}{2.5} = 6 \times 24.9 = 149.4$

25

$\therefore 149.4 \div 60 = \frac{149.4}{60}$

60

= 2.49 = 2mins 49secs



