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Mechanical Engineering

1)  $T_1$  of Thermometer =  $10^\circ\text{C}$   
 $T_2$  of Thermometer =  $20^\circ\text{C}$   
Time taken = 5 min = 300 sec  
 $\Delta T = 20 - 10 = 10^\circ\text{C}$

For final  $T = 24.9^\circ\text{C}$   
 $\Delta T_2 = 24.9 - 10 = 14.9^\circ\text{C}$

$$10^\circ\text{C} = 300 \text{ sec}$$

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

$$10x = 4470$$

$$x = 447 \text{ sec}$$

$$\therefore T = 7 \text{ min } 27 \text{ sec}$$



