

Y20-Mwork Adrew  
18/11/2016

Date: / /

Question 1

$$T_1 = 10^\circ\text{C}$$

$$T_2 = 20^\circ\text{C}$$

$$\text{Time taken} = 5 \text{ mins} = 5 \times 60 = 300 \text{ s}$$

$$\text{Actual temp } T = 24.9^\circ\text{C}$$

$$2 \text{ time} = ??$$

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

and it takes 5 mins to cover  $10^\circ\text{C}$

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

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

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

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

cross multiply

$$= \frac{2.5 \times 24.9}{25} \text{ ns} = [150 \text{ sec} = 2.5 \text{ mins}]$$

$$\frac{150 \times 24.9}{25} = 6 \times 24.9 = 149.4$$

$$\therefore 149.4 \div 60$$

$$= 2.49 = 2 \text{ min } 49 \text{ sec}$$

