

$$t = 76.75 \text{ mins}$$

(convert mins to seconds)

$$= 45 \text{ seconds}$$

$$\therefore T = 76 \text{ mins } 45 \text{ seconds}$$

(1) 6 hours to minutes = $60 \times 60 = 360 \text{ minutes}$

(2) The Steady-state value of the amount of fresh air in the ~~room~~ room obtained from the response graph is given as a straight line where there is no longer increase in the amount of fresh air even though there is still increase in the time.
Hence, the amount of fresh air in the room is steady (It does not change) with increase in time (minutes).