

11 Sept 2020

Chapter - 11

TIME

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Ex - 11.1

Q1. Convert hour in to minutes in the following question:- [1 hour = 60 minutes]

(i) $1\frac{1}{4}$ hour = 75 minutes.

Sol. $\frac{5}{4}$ hour

$\Rightarrow 1 \text{ h} = 60 \text{ min.}$

$\frac{5}{4} \times 60 \Rightarrow 75 \text{ minutes}$

$$\begin{array}{r} 15 \\ 4 \overline{) 60} \\ \underline{-40} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

(ii) $2\frac{1}{2}$ Hour = 150 minutes.

Sol. $2 \times 60 + \frac{1}{2} \times 60$

$120 + 30 \Rightarrow 150 \text{ minutes.}$

(iii) $5\frac{3}{4}$ hour = 345 minutes.

Sol. $5 \times 60 + \frac{3}{4} \times 60$

$300 + 45 = 345 \text{ minutes}$

$$(iv) 3 \frac{1}{5} \text{ hour} = \underline{192 \text{ minutes}}$$

$$\underline{\text{Sol.}} \quad 3 \times 60 + \frac{1}{5} \times 60$$

$$180 + 12 \\ \Rightarrow 192 \text{ minutes.}$$

$$\begin{array}{r} 12 \\ 5 \overline{) 60} \\ \underline{- 5} \\ 10 \\ \underline{- 10} \\ 0 \end{array}$$

$$(v) 4 \frac{1}{2} \text{ hour} = \underline{270 \text{ minutes}}$$

$$\underline{\text{Sol.}} \quad 4 \times 60 + \frac{1}{2} \times 60$$

$$240 + 30 = 270 \text{ minutes}$$

$$(vi) 6 \frac{1}{2} \text{ hour} = \underline{390 \text{ minutes}}$$

$$\underline{\text{Sol.}} \quad 6 \times 60 + \frac{1}{2} \times 60$$

$$360 + 30 \Rightarrow \underline{390 \text{ minutes}}$$

$$(vii) 490 \text{ minutes} = \underline{8 \text{ hour } 1 \text{ min.}}$$

$$\underline{\text{Sol.}} \quad [1 \text{ hour} = 60 \text{ min.}]$$

$$\frac{490}{60} = 6 \overline{) 49}$$

$$\underline{- 48}$$

$$\underline{1 \text{ min.}}$$

\Rightarrow ~~8~~

$$8 \frac{1}{6} \text{ h}$$

(viii) 280 minutes = $\frac{4}{4}$ hour 4 min.

Sol. $\frac{280}{60} = 6 \overline{)28} = 4 \frac{4}{6}$ hours.

(ix) 175 minutes = $\frac{2}{2}$ hour 55 min.

Sol. $\frac{175}{60} = 60 \overline{)175} = 2 \frac{55}{60}$
055 min.

(x) 860 minutes = $\frac{14}{14}$ hour 2 min $\Rightarrow 14 \frac{2}{6}$ hours

Sol. $\frac{860}{60} = 6 \overline{)86} = 14 \frac{2}{6}$
2 min

Day 12 Sept 2020

Ex. 11.2

Q1. Convert the following times units

(i) 20 minutes = 1200 Seconds.

[1 min = 60 Seconds]

Sol. $20 \times 60 \Rightarrow 1200$ Seconds

(ii) $6\frac{1}{2}$ minutes = 390 seconds.

Sol. $6 \times 60 + \frac{1}{2} \times 60$

$360 + 30 = 390$ Seconds.

(iii) $15\frac{1}{4}$ minutes = 915 Seconds

Sol. $15 \times 60 + \frac{1}{4} \times 60$

$900 + 15 = 915$

(iv) 4 hour = 14400 Seconds

Sol. $4 \times 3600 \Rightarrow 14400$

(v) $2\frac{3}{4}$ hour = 9900 Seconds

Sol. $2 \times 3600 + \frac{3}{4} \times 3600$

$\Rightarrow 7200 + 2700$

$\Rightarrow 9900$

(vi) $7\frac{1}{2}$ hour = 27000 second

Sol. $7 \times 3600 + \frac{1}{2} \times 3600$

$25200 + 1800 = 27000$

(vii) 29500 seconds = $8\frac{7}{36}$ hour.

Sol. [1 hour = 3600 seconds.]

$\frac{29500}{3600}$

$36 \overline{) 295}$
 $- 288$
 007

$\Rightarrow 8\frac{7}{36}$ hour : 3600

$\frac{36}{+2}$
 108
 144
 180
 216
 252
 288
 324
 360

(viii) 26200 seconds = $7\frac{5}{18}$ hour.

Sol. $\frac{26200}{3600}$
 18

$18 \overline{) 131}$
 $- 126$
 05

$\Rightarrow 7\frac{5}{18}$

(ix) 1255 seconds = $20\frac{55}{60}$ minutes.

Sol. [1 min = 60 second]

$\frac{1255}{60}$

$60 \overline{) 1255}$
 $- 1200$
 55

$\Rightarrow 20\frac{55}{60}$

(X) 2478 seconds = $41 \frac{18}{60}$ minutes,

sol $\frac{2478}{60} = 41 \frac{18}{60}$ $\begin{array}{r} 41 \\ 60 \overline{) 2478} \\ \underline{-240} \\ 78 \\ \underline{-60} \\ 18 \end{array}$

Day 21 Sept 2020

Ex 11.3

Q1. Convert the following time units:-

(a) $10\frac{3}{5}$ hours = 636 minutes

Sol. [1 hour = 60 minutes]

$$10 \times 60 + \frac{3}{5} \times 60$$

$$600 + 36 = 636 \text{ minutes}$$

$$\begin{array}{r} 12 \\ 5 \overline{) 60} \\ \underline{-5} \\ 10 \\ \underline{-10} \\ 0 \end{array}$$

(b) $2\frac{1}{4}$ hours = 8100 seconds.

[1 hour = 3600 seconds]

Sol. $2 \times 3600 + \frac{1}{4} \times 3600$

$$7200 + 900 = 8100 \text{ seconds}$$

(c) $\frac{1}{5}$ minutes = 12 seconds

Sol. [1 min = 60 sec.]

$$\frac{1}{5} \times 60 = 12 \text{ seconds}$$

(d) $1\frac{2}{3}$ minutes = 100 seconds

Sol. [1 min = 60 sec.]

$$1 \times 60 + \frac{2}{3} \times 60$$

$$60 + 40 = 100 \text{ seconds}$$

Day 22 Sept 2020

22/11/20

Q2. Add the following

(i) 2 hours 42 min. and 4 hours 10 min.

$$\begin{array}{r} \text{hours} \quad \text{min} \\ \text{A} \quad \quad \quad 2 \quad 42 \\ + \quad \quad \quad 4 \quad 10 \\ \hline \quad \quad \quad 6 \text{ h.} \quad 52 \text{ min.} \end{array}$$

(ii) 10 min. 50 sec. and 8 min 20 sec.

$$\begin{array}{r} \text{min} \quad \text{Sec.} \\ \text{A} \quad \quad \quad 10 \quad 50 \\ + \quad \quad \quad 8 \quad 20 \\ \hline \quad \quad \quad 18 \quad 70 \\ \text{18+1=19 min.} \quad 10 \text{ sec} \end{array}$$

(iii) Add 4 hours 25 min. 45 sec. and 7 hours 12 min ^{5 sec.}

$$\begin{array}{r} \text{hours} \quad \text{min} \quad \text{Sec.} \\ \text{A} \quad \quad \quad 4 \quad 25 \quad 45 \\ + \quad \quad \quad 7 \quad 12 \quad 05 \\ \hline \quad \quad \quad 11 \text{ h.} \quad 37 \text{ min} \quad 50 \text{ Sec.} \end{array}$$

(iv) Add 9 hours 36 min. 2 Sec. and 5 hours 40 min. 52 second

$$\begin{array}{r} \text{hour} \quad \text{min} \quad \text{Second} \\ \text{A} \quad \quad \quad 9 \quad 36 \quad 02 \\ + \quad \quad \quad 5 \quad 40 \quad 52 \\ \hline \quad \quad \quad 14 \quad 76 \quad 54 \\ \text{14+1=15 h.} \quad 16 \text{ min.} \quad 54 \text{ second.} \end{array}$$

Q3. Subtract the following

(i) 9 h. 32 min from 12 h. 18 min.

Sol

$$\begin{array}{r}
 \text{h.} \quad \text{min} \\
 12 \quad 18 \quad [60 + 18 = 78 - 32 = 46] \\
 - \quad 9 \quad 32 \\
 \hline
 2 \text{ h.} \quad 46 \text{ min}
 \end{array}$$

(b) Sub. 25 min. 49 sec. from 29 min 39 sec.

$$\begin{array}{r}
 \text{min.} \quad \text{sec.} \\
 29 \quad 39 \quad [60 + 39 = 99 - 49 = 50] \\
 - \quad 25 \quad 49 \\
 \hline
 03 \text{ min.} \quad 50 \text{ Sec.}
 \end{array}$$

(c) Sub. 7 h. 35 min. from 14 h. 8 min

$$\begin{array}{r}
 \text{h.} \quad \text{min.} \\
 14 \quad 8 \quad [60 + 8 = 68 - 35 = 33] \\
 - \quad 7 \quad 35 \\
 \hline
 6 \text{ h.} \quad 33 \text{ min.}
 \end{array}$$

(d) Sub. 10 h. 50 min. from 20 h. 40 min.

$$\begin{array}{r}
 \text{h.} \quad \text{min.} \\
 20 \quad 40 \quad [60 + 40 = 100 - 50 = 50] \\
 - \quad 10 \quad 50 \\
 \hline
 09 \text{ h.} \quad 50 \text{ min}
 \end{array}$$

Day 23 Sept 2020

Chapter - 11

Ex - 11.3

Q4. Yogesh Study 5 hours 30 min. in School and 3 hours 45 min. at home. How much time Yogesh study.

| | hours | min. |
|------------------------------|------------|---------|
| <u>Sol.</u> Study in School. | 5 | 30 |
| Study at home | + 3 | 45 |
| | <hr/> | <hr/> |
| | 8 | 75 |
| Total study \Rightarrow | $8+1=9$ h. | 15 min. |

Q5. The distance between Jaipur and Bharatpur is 250 km and a bus travels this in 4 hour 20 minutes and another bus travels this distance in 2 hour 45 min. How much total time both buses takes to reach.

| | hours | min |
|---|------------|--------|
| <u>Sol.</u> Time taken by I st Bus | 4 | 20 |
| Time taken by II nd Bus | + 2 | 45 |
| | <hr/> | <hr/> |
| | 6 | 65 |
| Total time taken by both buses \Rightarrow | $6+1=7$ h. | 05 min |

Q6. The distance between Bharatpur and Dholpur is 90 km. Rakesh covers this distance by car in 2 h - 12 min. and Jirag travel this distance in 3 hours 8 min. compare the time taken by both.

| | | |
|---------------------------------|-------|---------|
| <u>Sol.</u> Time taken by Jirag | 3 h | 8 min |
| Time taken by Rakesh | - 2 | 12 |
| | <hr/> | <hr/> |
| | 0 | 56 min. |

$08 - 12 = -04$
 $68 - 12 = 56$

Q7. Mohan runs for 3 hours 27 min, and Rakesh runs 2 hour 45 min, who runs for more time and how much.

Sol. Mohan runs for = 3^h 27^{min}
 Rakesh runs for = 2^h 45^{min}
 Extra time \Rightarrow 42 min
 Mohan = 42 min.

Q8. Add 2 h. 45 min and 3 h. 16 min.

Sol.

| | | |
|---------|----|-------|
| | h. | min. |
| | 2 | 45 |
| + | 3 | 16 |
| | | 61 |
| 5 | | 01 |
| 5+1=6h. | | 01min |

Q9. State True & False:-

- (a) To convert min in to second we divide by 60. (True / False)
- (b) There are 3600 second in one hour (T / F)
- (c) Minute hand of clock covers 60 small division in same duration hour hand of clock covers one big division. (T / F)
- (d) Half hour is equal to 15 min. (T / F)