

# **St. Andrews Scots Sr. Sec. School**

**9th Avenue, I.P. Extension, Patparganj, Delhi -110092**

**Session: 2025-2026**

**Class: V**

**Subject: Mathematics**

**Topic: Unit -12 (Time)**

Ex-1 Q.1 (Book)

Q.2 a,c,f,i,j (Notebook)

Q.3 a (Notebook)

Q.4 c,b (Notebook)

Q.5 a,e,f (Notebook)

Ex-2 Q.1 b ; Q.2 a,c ; Q.3 a,c (Notebook)

Ex-3 Q.1 a,c,d; Q.2 b ; Q.3 a (Notebook)

Ex-4 Q.1,2,3

Mental Maths Corner (H.W)

Worksheet

## Lesson-12 : Time

### Warm Up

Mohit should take flight –4096 to reach Chennai on time.

### Puzzle

0:12, 1:23, 2:34, 3:45, 4:56, 12:34

### Exercise-1

1. (a) (i)  $1 \text{ hour} = 60 \text{ minutes}$ ,  $1 \text{ minute} = \frac{1}{60} \text{ hour}$

$$\therefore 636 \text{ minutes} = (636 \div 60) \text{ hours}$$
$$= 10 \text{ hours } 36 \text{ minutes}$$
$$\begin{array}{r} 10 \text{ hours} \\ 60 \overline{)636} \\ \underline{-60} \\ 36 \\ \underline{-0} \\ 36 \text{ minutes} \end{array}$$

(b) (iv)  $\because 1 \text{ year} = 12 \text{ months}$

$$54 \text{ months} = (54 \div 12) \text{ years}$$
$$= 4 \text{ years } 6 \text{ months}$$
$$\begin{array}{r} 4 \text{ years} \\ 12 \overline{)54} \\ \underline{-48} \\ 6 \text{ months} \end{array}$$

2. (a)  $\because 1 \text{ day} = 24 \text{ hours}$

$$\therefore 8 \text{ days} = 8 \times 24 \text{ hours} = 192 \text{ hours.}$$

$$8 \text{ days } 7 \text{ hours} = (192 + 7) \text{ hours} = 199 \text{ hours.}$$

(b)  $15 \text{ hours } 24 \text{ minutes} = (15 \times 60 + 24) \text{ minutes}$

$$= (900 + 24) \text{ minutes} = 924 \text{ minutes}$$

(c)  $16 \text{ minutes } 25 \text{ seconds} = (16 \times 60 + 25) \text{ seconds}$

$$= (960 + 25) \text{ seconds} = 985 \text{ seconds}$$

(d)  $7 \text{ months } 3 \text{ weeks} = 7 \times 30 \text{ days} + 3 \times 7 \text{ days}$  (1 month = 30 days)

$$= 210 \text{ days} + 21 \text{ days} \quad (1 \text{ week} = 7 \text{ days})$$
$$= 231 \text{ days}$$

(e)  $2 \text{ months } 4 \text{ days} = (2 \times 30 + 4) \text{ days}$

$$= 64 \text{ days}$$

(f)  $2 \text{ years } 7 \text{ months} = (2 \times 12 + 7) \text{ months}$

$$= (24 + 7) \text{ months} = 31 \text{ months}$$

(g)  $1 \text{ minute} = 60 \text{ seconds}$ ,  $1 \text{ second} = \frac{1}{60} \text{ minutes}$

$$\therefore 360 \text{ seconds} = (360 \div 60) \text{ minutes}$$
$$= 6 \text{ minutes}$$
$$\begin{array}{r} 6 \text{ minutes} \\ 60 \overline{)360} \\ \underline{-360} \\ 0 \end{array}$$

(h)  $\because 1 \text{ day} = 24 \text{ hours}$

$$55 \text{ hours} = (55 \div 24) \text{ days}$$
$$= 2 \text{ days } 7 \text{ hours}$$
$$\begin{array}{r} 2 \text{ days} \\ 24 \overline{)55} \\ \underline{-48} \\ 7 \text{ hours} \end{array}$$

(i)  $\because 1 \text{ year} = 365 \text{ days}$

$$765 \text{ days} = (765 \div 365) \text{ years}$$
$$= 2 \text{ years } 35 \text{ days}$$
$$\begin{array}{r} 2 \text{ years} \\ 365 \overline{)765} \\ \underline{-730} \\ 35 \text{ days} \end{array}$$

(j)  $\because 1 \text{ month} = 4 \text{ weeks}$

$$96 \text{ weeks} = (96 \div 4) \text{ months}$$
$$= 24 \text{ months}$$
$$\begin{array}{r} 24 \text{ months} \\ 4 \overline{)96} \\ \underline{-8} \\ 16 \\ \underline{-16} \\ 0 \end{array}$$

3. (a)  $14 \text{ hours } 15 \text{ minutes } 16 \text{ seconds}$

$$= (14 \times 60) \text{ minutes} + 15 \text{ minutes } 16 \text{ seconds}$$
$$= 840 \text{ minutes} + 15 \text{ minutes } 16 \text{ seconds}$$
$$= 855 \text{ minutes } 16 \text{ seconds}$$
$$= (855 \times 60) \text{ seconds} + 16 \text{ seconds}$$
$$= 51300 \text{ seconds} + 16 \text{ seconds}$$
$$= 51316 \text{ seconds}$$

4. (a) 5 weeks 4 days 10 hours =  $(5 \times 7)$  days + 4 days 10 hours

$$\begin{aligned} &= 35 \text{ days} + 4 \text{ days} 10 \text{ hours} \\ &= 39 \text{ days} 10 \text{ hours} \\ &= (39 \times 24) \text{ hours} + 10 \text{ hours} \\ &= 936 \text{ hours} + 10 \text{ hours} \\ &= 946 \text{ hours} \end{aligned}$$

(b) 6 weeks 7 hours =  $(6 \times 7)$  days + 7 hours

$$\begin{aligned} &= 42 \text{ days} + 7 \text{ hours} \\ &= (42 \times 24) \text{ hours} + 7 \text{ hours} \\ &= 1008 \text{ hours} + 7 \text{ hours} \\ &= 1015 \text{ hours} \end{aligned}$$

(c) 4 weeks 6 days 23 hours =  $(4 \times 7)$  days + 6 days 23 hours

$$\begin{aligned} &= 28 \text{ days} + 6 \text{ days} 23 \text{ hours} \\ &= 34 \text{ days} 23 \text{ hours} \\ &= (34 \times 24) \text{ hours} + 23 \text{ hours} \\ &= 816 \text{ hours} + 23 \text{ hours} = 839 \text{ hours} \end{aligned}$$

5. (a) 95 days =  $(95 \div 30)$  months

$$= 3 \text{ months } 5 \text{ days}$$

$$\begin{array}{r} 3 \text{ months} \\ 30 \overline{) 95} \\ \underline{-90} \\ 5 \text{ days} \end{array}$$

(b) 2700 seconds =  $(2700 \div 60)$  minutes

$$= 45 \text{ minutes}$$

$$\begin{array}{r} 45 \text{ minutes} \\ 60 \overline{) 2700} \\ \underline{-240} \\ 300 \\ \underline{-300} \\ 0 \end{array}$$

(c) 625 hours =  $(625 \div 24)$  days

$$= 26 \text{ days } 1 \text{ hour}$$

$$\begin{array}{r} 26 \text{ days} \\ 24 \overline{) 625} \\ \underline{-48} \\ 145 \\ \underline{-144} \\ 1 \text{ hour} \end{array}$$

Now, we divide 26 days by 7 to convert into weeks.

$$26 \text{ days} = (26 \div 7) \text{ weeks}$$

$$= 3 \text{ weeks } 5 \text{ days}$$

$$\begin{array}{r} 3 \text{ weeks} \\ 7 \overline{) 26} \\ \underline{-21} \\ 5 \text{ days} \end{array}$$

Thus, 625 hours = 3 weeks 5 days 1 hour

(d) 1268 minutes =  $(1268 \div 60)$  hours

$$= 21 \text{ hours } 8 \text{ minutes}$$

$$\begin{array}{r} 21 \text{ hours} \\ 60 \overline{) 1268} \\ \underline{-120} \\ 68 \\ \underline{-60} \\ 8 \text{ minutes} \end{array}$$

(e) 3580 seconds =  $(3580 \div 60)$  minutes

$$= 59 \text{ minutes } 40 \text{ seconds}$$

$$\begin{array}{r} 59 \text{ minutes} \\ 60 \overline{) 3580} \\ \underline{-300} \\ 580 \\ \underline{-540} \\ 40 \text{ seconds} \end{array}$$

(f) 185 days =  $(185 \div 30)$  months

$$= 6 \text{ months } 5 \text{ days}$$

$$\begin{array}{r} 6 \text{ months} \\ 30 \overline{) 185} \\ \underline{-180} \\ 5 \text{ days} \end{array}$$

## Exercise-2

1. (a) (ii) 12 minutes 10 seconds + 16 minutes 50 seconds

$$= 29 \text{ minutes}$$

In the seconds column,

$$(10 + 50) \text{ seconds} = 60 \text{ seconds} = 1 \text{ minute}$$

Carry over 1 to the minutes column and

write 00 in the seconds column.

Minutes	Seconds
①	
12	10
+ 16	50
<u>29</u>	00

In the minutes column,  $(1 + 12 + 16) minutes = 29 minutes$

(b) (iii) Here, 23 seconds < 50 seconds

So, we borrow 1 minute = 60 seconds from 16 minutes leaving behind 15 minutes.

$$(23 + 60) \text{ seconds} = 83 \text{ seconds}$$

$$\text{Now, } (83 - 50) \text{ seconds} = 33 \text{ seconds}$$

$$(15 - 12) \text{ minutes} = 3 \text{ minutes}$$

Minutes	Seconds
⑯	83
16	23
- 12	50
<u>3</u>	33

2. (a) 3 hours 42 minutes + 12 hours 12 minutes

$$= 15 \text{ hours 54 minutes}$$

Hours	Minutes
3	42
+ 12	12
<u>15</u>	54

(b) 12 years 7 months + 18 months

$$= 14 \text{ years 1 month}$$

Years	Months
②	
12	7
+ 00	18
<u>14</u>	01

In the months column,  
 $(7 + 18)$  months = 25 months  
 $= 24 \text{ months} + 1 \text{ month}$   
 $= 2 \text{ years} + 1 \text{ month}$   
 write 1 in the months column and  
 carryover 2 to the years column.

(c) 9 days 14 hours + 5 days 12 hours

$$= 15 \text{ days 2 hours}$$

Days	Hours
①	
9	14
+ 5	12
<u>15</u>	02

In the hours column.  
 $(14 + 12)$  hours = 26 hours.  
 $26 \text{ hours} = 24 \text{ hours} + 2 \text{ hours}$   
 $= 1 \text{ day} + 2 \text{ hours}$   
 write 2 in hours column and carryover  
 1 day to the days column.

### Exercise-3

1. (a) (i) Rahul starts doing his homework at 05 : 30 p.m. or 17 : 30 hours.

He completes his homework after 1 hour 30 minutes.

So, we have to add 17 hours 30 minutes to 1 hour 30 minutes.

$$\begin{array}{l}
 (30 + 30) \text{ minutes} = 60 \text{ minutes} = 1 \text{ hour} \\
 \text{write 00 in the minutes column and} \\
 \text{carryover 1 to the hours column.} \\
 (1 + 17 + 1) \text{ hours} = 19 \text{ hours.}
 \end{array}
 \begin{array}{r}
 \text{Hours} \quad \text{Minutes} \\
 \textcircled{1} \\
 17 \quad 30 \\
 + \quad 1 \quad 30 \\
 \hline
 19 \quad 00
 \end{array}$$

So, we get, 19 hours 00 minutes = 19 : 00 hours = 07 : 00 p.m.

Rahul completes his homework at 07 : 00 p.m.

$$\begin{array}{l}
 \text{(b) (iv) } 06 : 30 \text{ p.m.} = 18 : 30 \text{ hours,} \\
 \text{The time 45 minutes before 18 : 30 hours} \\
 \text{was } 17 : 45 \text{ hours or } 05 : 45 \text{ p.m.}
 \end{array}
 \begin{array}{r}
 \text{Hours} \quad \text{Minutes} \\
 \textcircled{17} \quad \textcircled{90} \\
 18 \quad 30 \\
 - \quad 00 \quad 45 \\
 \hline
 17 \quad 45
 \end{array}$$

Since 30 minutes < 45 minutes, so, we borrow 1 hour from the hours column.

It reduces 18 hours to 17 hours. Also  $(30 + 60)$  minutes = 90 minutes.

(c) (iii) Ms Gauri went to the market at 11 : 30 a.m. or 11 : 30 hours.

She returned after 2 hours 25 minutes.

$$\begin{array}{l}
 \text{So, we have to add 11 hours 30 minutes to} \\
 \text{2 hours 25 minutes. We get, 13 hours 55 minutes.} \\
 \text{Ms Gauri returned at 13 : 55 hours or}
 \end{array}
 \begin{array}{r}
 \text{Hours} \quad \text{Minutes} \\
 11 \quad 30 \\
 + \quad 2 \quad 25 \\
 \hline
 13 \quad 55
 \end{array}$$

01 : 55 p.m. from the market.

(d) (iv) First convert the time into 24 hour clock time.

09 : 50 a.m. = 09 : 50 hours = 9 hours 50 minutes

07 : 10 p.m. = 19 : 10 hours = 19 hours 10 minutes

Now subtracting 9 hours 50 minutes from

19 hours 10 minutes.

We get, 9 hours 20 minutes.

The time duration of Mrs Sharma's office is 9 hours 20 minutes.

Hours Minutes

$$\begin{array}{r}
 \textcircled{19} \quad \textcircled{10} \\
 19 \quad 10 \\
 - \quad 9 \quad 50 \\
 \hline
 9 \quad 20
 \end{array}$$

2. (a) First convert the time into 24 hour clock time.

07 : 30 a.m. = 07 : 30 hours

Now arrange the units columnwise and add.

We get, 13 hours 44 minutes.

convert it into 12 hour clock time.

13 : 44 hours = 13 : 44 - 12 : 00 = 1 : 44 p.m.

The time 6 hours 14 minutes after 7 : 30 a.m. will be 01 : 44 p.m.

(b) 12 : 00 noon = 12 : 00 hours

The time 3 hours 12 minutes after

12 : 00 hours will be 15 : 12 hours

or 03 : 12 p.m.

Hours Minutes

$$\begin{array}{r}
 7 \quad 30 \\
 + \quad 6 \quad 14 \\
 \hline
 13 \quad 44
 \end{array}$$

Hours Minutes

$$\begin{array}{r}
 12 \quad 00 \\
 + \quad 3 \quad 12 \\
 \hline
 15 \quad 12
 \end{array}$$

3. (a) First convert the time into 24 hour clock time

1 : 00 p.m. = 13 : 00 hours.

Now subtract 1 hour 25 minutes from it.

In the minutes column, 00 < 25

So, we borrow 1 hour from the hours column.

It reduces 13 hours to 12 hours.

Also, (00 + 60) minutes = 60 minutes

Now subtracting, (60 - 25) minutes = 35 minutes

$$(12 - 1) \text{ hours} = 11 \text{ hours}$$

So, the time 1 hour 25 minutes before 1.00 p.m. was 11 : 35 hours or 11 : 35 a.m.

(b) 12 midnight = 00 : 00 hours = 24 : 00 hours

Since 00 minutes < 55 minutes.

So, we borrow 1 hour from hours column

leaving 23 hours.

Also, (60 + 00) minutes = 60 minutes

Now subtracting 2 hours 55 minutes from 23 hours 60 minutes.

we get, 21 : 05 hours = 09 : 05 p.m

So, the time 2 hours 55 minutes before 12 midnight was 09 : 05 p.m.

Hours	Minutes
12	60
13	00
- 1	25
11	35

Hours	Minutes
23	60
24	00
- 2	55
21	05

#### Exercise-4

1. (a) (ii) Number of days from 12th May to 31st May = 20

Number of days from 1st June to 23rd June = 23

Total number of days = 20 + 23 = 43

Thus, the school remain closed for 43 days.

(b) (ii) Period from 14th March to 31st March = 18 days

Period from 1st April to 30th April = 30 days

Period from 1st May to 26th May = 26 days

Total number of days = (18 + 30 + 26) = 74

Thus, Divya's father was on official tour for 74 days.

2. Gaurav started the project on 15th August (Independence Day).

Number of days from 15th August to 31st August = 17

(both dates included)

So, Gaurav finished the project on 31st August.

3. Number of days for which Anurag was in Pune in June

$$= 30 - 9 = 21 \quad (10\text{th is included})$$

Number of days in July = 31

Number of days in August = 56 - (21 + 31) = 56 - 52 = 4

Thus, Anurag came back home on 5th August.

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5. (a) 95 days =  $(95 \div 30)$  months

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(f) 185 days =  $(185 \div 30)$  months

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