Chapter 12: Ticking Clocks and Turning Calendar

Let Us Do (Page 175 – 177)

1. Notice the number of days in February in the years 2024 and 2025.

FEB 2024						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

FEB 2025						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

Number of days in Feb 2024 = _____
Number of days in Feb 2025 = _____
Solution:
Number of days in Feb 2024 = 29.
Number of days in Feb 2025 = 28.

2. Fill in the blanks with consecutive leap years before and after 2024.
_____, _____, 2024, _____, _____, _____
Solution:
A leap year comes after every 4 years.
2016, 2020, 2024, 2028, 2032, 2036.

3. We know that most years have 365 days. How many days would a leap year have?
Solution:
A leap year has a total of 366 days.

4. Write the names of the months when you celebrate your favourite festivals.

Name of the Festival	Name of the Month

Solution:

Name of the Festival	Name of the Month
Holi	March
Baisakhi	April
Raksha Bandhan	August
Janmashtami	August
Diwali	October / November

5. Answer the following questions by writing the appropriate days of the week:
(a) Today: _____
(b) Yesterday: _____
(c) Tomorrow: _____
(d) Day after tomorrow: _____
(e) Day before yesterday: _____
Solution:
(a) Today: Sunday
(b) Yesterday: Saturday
(c) Tomorrow: Monday
(d) Day after tomorrow: Tuesday
(e) Day before yesterday: Friday

6. July 1 is a Monday. Write the dates for the next two Mondays. _____
Solution:
A Day repeats itself after 7 days.
The next two Mondays will fall 7 and 14 days after July 1.
So, the dates for the next two Mondays are July 8 and July 15**.**

7. Laali is born on 04/07/2014 and Chotu is born on 04/12/2019. Who is older among the two and how much?
Laali will turn 5 years old on _____.
Chotu's 10th birthday will be celebrated on _____.
Solution:
Laali's birthdate: 04/07/2014 or 4 July 2014.
Chotu's birthdate: 04/12/2019 or 4 December 2019.
From 2014 to 2019 = 5 years.
From July to December = 5 months.
So, Laali is 5 years and 5 months older than Chotu.

Since 2014 + 5 = 2019. So, Laali will turn 5 years old on 04/07/2019.
Since 2019 + 10 = 2029. So, Chotu's 10th birthday will be celebrated on 04/12/2029.

8. Check the manufacturing and expiry dates on the wrapper of any biscuit packet.

a) How old is the packet of biscuits?

Answer: ____ months ____ days.

b) How many more days are the biscuits safe to eat?

Answer: ____ months ____ days.

Solution:

Do it yourself.

9. Notice the day on which July 15 falls in your calendar. Now find out what day is August 15? September 15? October 15? What pattern do you notice? Share in grade.

Now choose a date and look up the day on which it falls. Challenge your friends to guess what day will the same date fall in the following month.

Solution:

July 15, 2025 - Tuesday

August 15, 2025 - Friday

September 15, 2025 - Monday

October 15, 2025 – Wednesday

Let Us Explore (Page 177)

Q. With the help of your parents and teachers, explore the names of the months in the Hindu/Islamic/Sikh or any other calendar of your community.

1. Find out when the year begins in each of these calendars.

2. Check how the names of the months in these calenders correspond to the months in the English calendar.

3. Identify the months from the Hindu/Islamic/Sikh or any other calendar in which some of the important festivals of the community fall.

4. Identify the dates of the new moon and full moon in your community's calendar every month. Do you notice any pattern?

5. How are the full moon or new moon days named in your community's calendar?

Solution:

Do it yourself.

How many hours in a day (Page 178)

Q. Look at the picture below. It shows the time spent on different activities by a doctor. Write the number of hours spent on each activity in the space provided. Then, find the total number of hours between 6 o'clock morning to 6 o'clock evening and 6 o'clock morning of the next day.
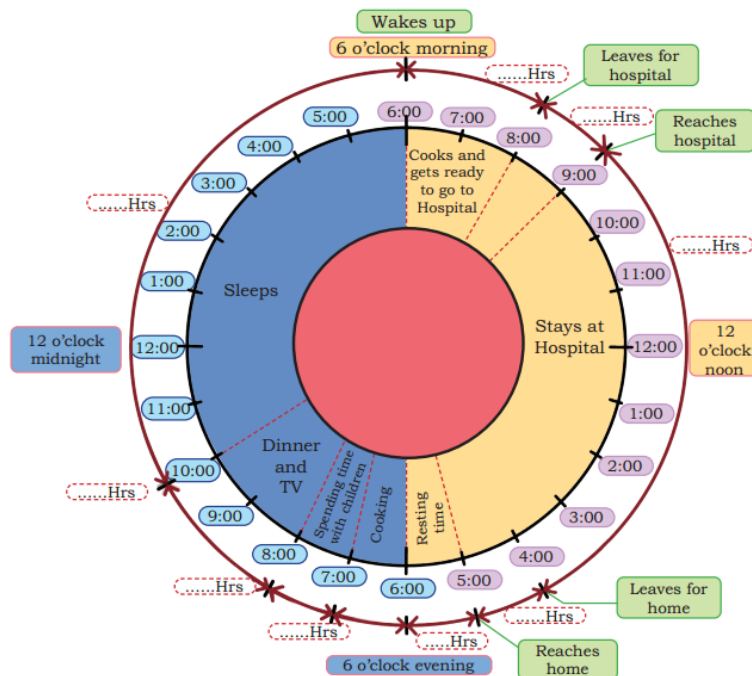
The total number of hours is _____ .
Solution:
The total number of hours = 2 + 1 + 7 + 1 + 1 + 1 + 1 + 2 + 8 = 24 hours.

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Q. Fill in the blanks by writing time in the appropriate format.

Time in AM/PM	Time in the digital clock
12:00 AM	00:00 hours
1:00 AM	1:00 hours
3:00 AM	3:00 hours
7:15 AM	7:15 hours
9:45 AM	_____ hours
_____	11:20 hours
12:00 PM	12:00 hours
1:00 PM	13:00 hours
3:00 PM	_____ hours
5:20 PM	_____ hours
_____	20:00 hours
11:45 PM	23:45 hours

Solution:

Time in AM/PM	Time in the digital clock
12:00 AM	00:00 hours
1:00 AM	1:00 hours
3:00 AM	3:00 hours
7:15 AM	7:15 hours
9:45 AM	9:45 hours
11:20 AM	11:20 hours
12:00 PM	12:00 hours
1:00 PM	13:00 hours
3:00 PM	15:00 hours
5:20 PM	17:20 hours
8:00 PM	20:00 hours
11:45 PM	23:45 hours

Hours and minutes (Page 181)

Q. Raghav brings milk from the market every morning.

8:20   8:35

Raghav leaves home at 8:20 AM and returns back at 8:35 AM. How much time has he taken?

_____

Solution:
Time taken by Raghav = 8:35 hours – 8:20 hours = 15 minutes.

1. Show the appropriate times on the clock as per instructions.
a) Raghav started doing his homework at 10:20 AM. He took 25 minutes to finish it. Show the time that he finished his homework.
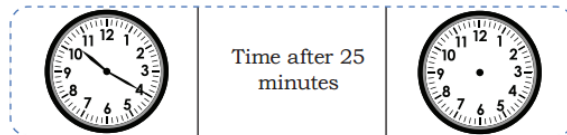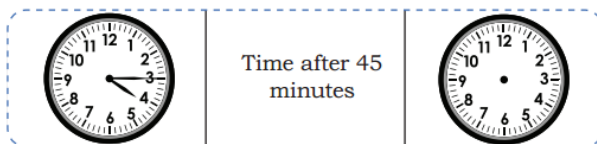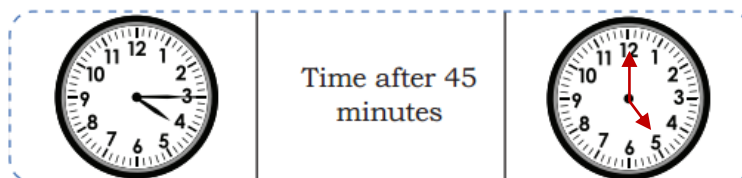
Solution:
10:20 AM + 25 minutes = 10:45 AM.

b) Muneera starts reading a story at 4:15 PM. She finishes reading it in 45 minutes. Show the time that she finished reading the story.
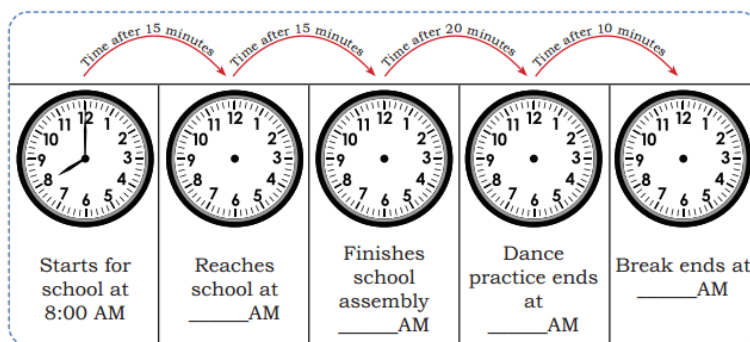
Solution:
4:15 PM + 45 minutes = 5:00 PM

c) Akira leaves for school at 8:00 AM. She reaches school in 15 minutes.
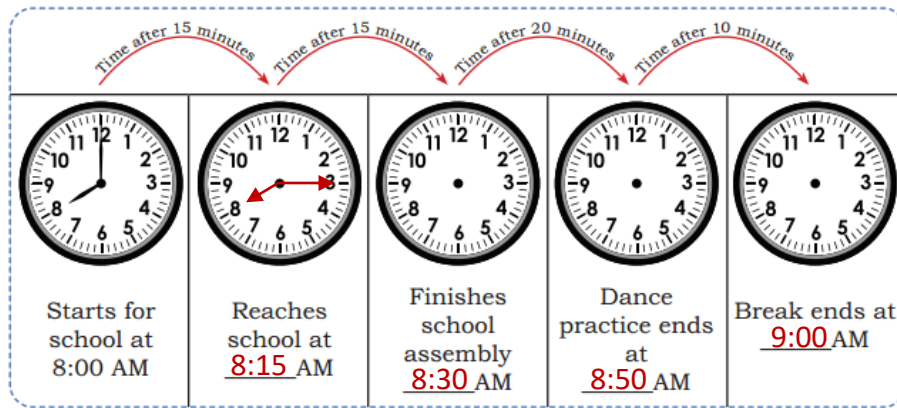
Solution:

Starts for school at 8:00 AM

Reaches school at 8:00 AM + 15 min = 8:15 AM.

Finishes school assembly at 8:15 AM + 15 min = 8:30 AM.

Dance practice ends at 8:30 AM + 20 min = 8:50 AM.

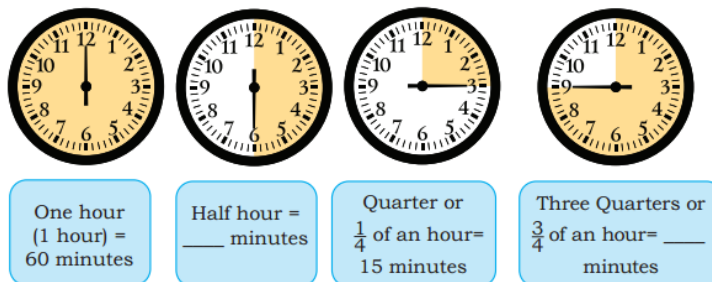Break ends at 8:50 AM + 10 min = 9:00 AM.

Akira has spent one hour from 8:00 AM to 9:00 AM.

No, she has spent 60 minutes.

Q. Observe the shaded portions

| One hour (1 hour) = 60 minutes | Half hour = ____ minutes | Quarter or $\frac{1}{4}$ of an hour= 15 minutes | Three Quarters or $\frac{3}{4}$ of an hour= ____ minutes |

Solution:

One hour (1 hour) = 60 minutes

Half hour = $\frac{1}{2} \times 60 = \frac{60}{2}$ = 30 minutes

Quarter or $\frac{1}{4}$ of an hour = 15 minutes

Three quarters or $\frac{3}{4}$ of an hour = $\frac{3}{4} \times 60 = \frac{180}{4}$ = 45 minutes.

Q. Find out how much time you take to
a) boil milk
b) fill water from tap in a bucket
What activities can you do in 5 minutes?
Solution:
a) Time taken to boil milk = 7 - 10 minutes.

b) Time taken to fill water from tap in a bucket = 5 - 7 minutes.

Activities that I can do in 5 minutes:
(i) Brush my teeth.
(ii) Comb my hair.
(iii) Pack my school bag.
(iv) Polish my shoes.
(v) Arrange books on my study table.

Let Us Check (Page 183)

Q. Three friends read time from a clock. Who is right? Discuss the error and explain how one reads the clock correctly.

	Raghu	Raghav	Rani
	12:04	12:20	04:00
	07:07	07:25	05:35
	03:07	03:35	07:15

Solution:
(i)

	Raghu	Raghav	Rani
	12:04	12:20	04:00

With the minute hand at 12 and the hour hand at 4, the correct time is 04:00. So, Rani is right.

(ii)

	Raghu	Raghav	Rani
	07:07	07:25	05:35

With the minute hand at 7 and hour hand between 5 and 6, the correct time is 05:35. So, Rani is right.

(iii)

	Raghu	Raghav	Rani
	03:07	03:35	07:15

With the minute hand at 3 and hour hand at 7, the correct time is 07:15. So, Rani is right.