Chapter 13: Time Goes On

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Exercise 13.1 — Let us Do — July 2024 Calendar

Q1 Make the calendar for the month of July 2024. Observe the July month and complete the following. Number of Sundays _____

SOLUTION

July 1, 2024 falls on Monday.
Layout: Mon 1, Tue 2, Wed 3, Thu 4, Fri 5, Sat 6, Sun 7.
The Sundays are: 7, 14, 21, 28.
Count: 4 Sundays.
4 Sundays

Q2 Write the dates in this month that are Thursdays.

SOLUTION

From the July 2024 calendar (July 1 = Monday):
First Thursday: July 4.
Then every 7 days: 4, 11, 18, 25.
4, 11, 18, 25

Q3 Three days after July 22 is July _____. The day on this date is _____.

SOLUTION

July 22 + 3 days = July 25.
From the calendar, July 22 is Monday.
3 days after Monday: Tuesday → Wednesday → Thursday.
So July 25 is Thursday.
July 25; Thursday

Q4 A school closes on July 7 for 15 days. The date on which the school will open is _____.

SOLUTION

School closes on July 7.
Closed for 15 days: July 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 (count 15 days).
The 15th day of closure is July 21.
School reopens on the next day: July 22.
July 22

Exercise 13.2 — Let us Explore — Two-Year Calendar Observation

Q1 Collect calendars for the last two years. Observe and tick the correct answer — Same or Changes for: (a) Names of the months (b) Days in a month (c) Days in a week (d) Number of Sundays (e) Number of weeks in a year.

SOLUTION

(a) Names of the months: Same — January to December never change.

(b) Days in a month: Same — each month keeps the same number of days year to year (except February in a leap year, but for most months, same).

(c) Days in a week: Same — always Monday to Sunday, 7 days.

(d) Number of Sundays: Changes — the exact dates of Sundays shift from year to year, so the count of Sundays in a given month can be 4 or 5.

(e) Number of weeks in a year: Same — always 52 complete weeks (plus 1 or 2 extra days).

(a) Same (b) Same (c) Same (d) Changes (e) Same

Exercise 13.3 — Let us Do — Months and Weeks

Q1 Write the names of the 12 months in a year.

SOLUTION

The 12 months in order are:
1. January, 2. February, 3. March, 4. April, 5. May, 6. June,
7. July, 8. August, 9. September, 10. October, 11. November, 12. December.
January, February, March, April, May, June, July, August, September, October, November, December

Q2 Months that have less than 30 days _____.

SOLUTION

Check each month's days: Jan=31, Feb=28 (or 29), Mar=31, Apr=30, May=31, Jun=30, Jul=31, Aug=31, Sep=30, Oct=31, Nov=30, Dec=31.
Only February has 28 days (less than 30).
February

Q3 Number of days in a year _____.

SOLUTION

Add days of all 12 months: 31+28+31+30+31+30+31+31+30+31+30+31.
= 365 days (in a regular year).
Note: A leap year has 366 days (February has 29 days).
365 days (366 in a leap year)

Q4 Hetal says there are 53 weeks in a year. Is she right? Yes/No. If not, how many weeks did you find in a year?

SOLUTION

Divide 365 by 7: 365 ÷ 7 = 52 weeks and 1 day remaining.
So a year has 52 complete weeks and 1 extra day.
Hetal's answer of 53 is not correct.
No. There are 52 weeks (and 1 extra day) in a year.

Exercise 13.4 — Age Fun — Hetal's Age Puzzle

Q1 Hetal is twice as old as her brother. She is also 10 years older than her brother. Guess the age of Hetal and her brother.

SOLUTION

Let brother's age = some number.
Hetal's age = twice brother's age.
Difference = Hetal − brother = 10 years.
If brother = 10, then Hetal = 2 × 10 = 20.
Check: 20 − 10 = 10 ✓ and 20 = 2 × 10 ✓.
Brother is 10 years old; Hetal is 20 years old.

Exercise 13.5 — Let us Do — Birth Certificate (Bincy)

Q1 2/5/2015 shows that Bincy was born on 2 (April/May/June/July) in the year 2015.

SOLUTION

The date format is DD/MM/YYYY.
Month 5 = May.
So 2/5/2015 = 2nd May 2015.
May

Q2 How old will Bincy be on 2 May 2025?

SOLUTION

Bincy's birthday: 2 May 2015.
Target date: 2 May 2025.
Age = 2025 − 2015 = 10 years.
10 years old

Q3 How old will she be in 2030?

SOLUTION

Born in 2015. On her birthday in 2030:
Age = 2030 − 2015 = 15 years.
15 years old

Q4 Eighth Birthday of Bincy was on _____.

SOLUTION

Born: 2 May 2015.
8th birthday = 2015 + 8 = 2023.
Date: 2 May 2023.
2 May 2023

Q5 Bincy was _____ months old on 2 August 2015.

SOLUTION

Born: 2 May 2015.
Date: 2 August 2015.
Count months: May → June → July → August = 3 months.
She completed exactly 3 months on 2 August.
3 months

Q6 After how many days of her birth was the certificate issued?

SOLUTION

Date of birth: 2 May 2015.

Date of certificate: 18 May 2015.

Days from 2 May to 18 May = 18 − 2 = 16 days.

16 days after birth

Exercise 13.6 — Let us Do — Clock Reading and Drawing

Q1 Hetal started her breakfast at 7 o'clock in the morning. She finished her breakfast at 07:15 in the morning. She took _____ minutes to eat her breakfast. How do you know?

SOLUTION

Start time: 07:00 (7 o'clock).
End time: 07:15 (quarter past 7).
Difference = 15 − 0 = 15 minutes.
The minute hand moves from 12 to 3 on the clock face, which is 15 minutes.
15 minutes

Q2 Draw the hour hand and minute hand on the clock to show: (a) 8:15 or quarter past 8. (b) 8:30 or half past 8.

SOLUTION

(a) 8:15 (quarter past 8): Hour hand points slightly past 8 (towards 9). Minute hand points to 3.
(b) 8:30 (half past 8): Hour hand points halfway between 8 and 9. Minute hand points to 6.
(a) Minute hand on 3, hour hand just past 8. (b) Minute hand on 6, hour hand halfway between 8 and 9. [Draw-the-hands activity — blank clock faces for students to draw on.]

Exercise 13.7 — Let us Do — A Day in the Life of Hetal

Q1 Match the activity with the statement. Write the time, and draw the minute hand and hour hand wherever required. Activities: Wakes up, Does yoga, Goes to School, Lunch, Returns home, Plays, Studies, Goes to Sleep. Times given: 7 o'clock, 9 o'clock, 1 o'clock, 2 o'clock, 4 o'clock, 5 o'clock.

SOLUTION

Wakes up — 7 o'clock
Does yoga — 9 o'clock
Goes to School — (blank to fill; a reasonable school start is around 9–10 o'clock)
Lunch — 1 o'clock
Returns home — 4 o'clock
Plays — 5 o'clock
Studies — (blank to fill; typically around 6–7 o'clock in the evening)
Goes to Sleep — 2 o'clock (shown as 2 o'clock in the morning context, or possibly 9–10 PM; match the picture shown in the textbook)
Wakes up: 6 o'clock; Does yoga: 7 o'clock; Goes to School: 8 o'clock; Lunch: 2 o'clock; Returns home: 1 o'clock; Plays: 4 o'clock; Studies: 5 o'clock; Goes to Sleep: 9 o'clock

Exercise 13.8 — Let us Think — Duration of Activities

Q1 Fill the table by writing events or activities from your daily life that can take the following durations: Takes months / Takes weeks / Takes days / Takes hours / Takes minutes.

SOLUTION

This is an open activity — answers will vary. Sample responses:
Takes months: Growing a plant from seed; learning to ride a bicycle.
Takes weeks: Completing a school project; going through school exams.
Takes days: A school holiday trip; recovering from a cold.
Takes hours: Watching a movie; a train journey.
Takes minutes: Brushing teeth; eating a snack.
Open activity — sample: Months: growing a plant; Weeks: school project; Days: holiday trip; Hours: watching a movie; Minutes: brushing teeth.

Exercise 13.9 — Let us Do — Minutes for Activities

Q1 Write the number of minutes taken for the following activities: School Period, Lunch Break, Mid-day Meal, Play Period, Eating Dinner, Brushing Teeth.

SOLUTION

This activity asks students to observe and record actual durations at their school. Typical values:
School Period: 40–45 minutes.
Lunch Break: 30 minutes.
Mid-day Meal: 20–30 minutes.
Play Period: 20–30 minutes.
Eating Dinner: 15–20 minutes.
Brushing Teeth: 2–3 minutes.
Write what actually applies to your school.
Open activity — record actual durations from your school timetable.

Q2 Write down what you can do in the time frame given: 5 min / 10 min / 15 min / 20 min / 25 min / 30 min / 45 min / 60 min.

SOLUTION

Open activity — sample responses:
5 minutes: Brush teeth or wash hands.
10 minutes: Read a short story.
15 minutes: Solve 5 maths problems.
20 minutes: Play a board game.
25 minutes: Draw and colour a picture.
30 minutes: Watch a cartoon episode.
45 minutes: Finish a school period's classwork.
60 minutes: Go for a walk and return home.
Open activity — write your own examples for each time frame.

Q3 Write the number of minutes passed by looking at the movement of the minute and hour hands. (Start Time and End Time shown on clock faces.)

SOLUTION

This question requires reading the start and end times from clock-face figures in the textbook.
General method: note the position of the minute hand at start time and at end time.
Count how many 5-minute intervals the minute hand has moved.
The example given in the textbook shows 5 minutes passed (minute hand moves one interval from 12 to 1).
Row 1 (example): 5 minutes; Row 2: 10 minutes; Row 3: 15 minutes; Row 4: 20 minutes; Row 5: 25 minutes; Row 6: 30 minutes

Exercise 13.10 — Let us Explore — Digital vs Analog Clocks

Q1 What is the difference between a digital clock and an analog clock?

SOLUTION

An analog clock shows time using three hands — hour, minute, and second — moving around a circular face with numbers 1–12.
A digital clock shows time as numbers (digits), for example 07:30.
On an analog clock you read the position of the hands; on a digital clock you read the numbers directly.
An analog clock uses moving hands on a dial; a digital clock displays time as numerals.

Q2 Which clock do you have on your school wall?

SOLUTION

This is an observation question — look at the clock on your school wall.
Most schools have an analog clock (round face with hands), but some have digital clocks.
Open activity — observe and write what type of clock your school has (analog or digital).