Chapter 9: Time and Calendar

Warm-up

1. Correct time (a) 1:45 (b) 6:30 **2.** (a) 3:30 (b) 10:15

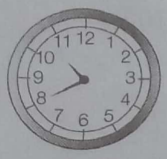
3. (a) September comes before October and December comes after November

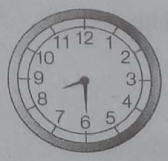
(b) (i) October 23 – Wednesday (ii) November 5 – Tuesday

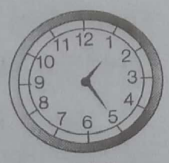
Exercise 9A

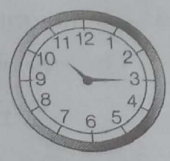
1. (a) 4:00, 4 O'clock (b) 7:30, half past seven (c) 12:15, quarter past twelve

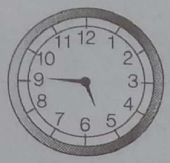
(d) 8:45, quarter to nine (e) 1:20, twenty minutes past one (f) 8:05, five minutes past eight

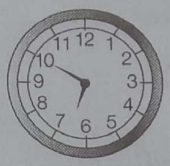
2. (a)  10:40

(b)  8:30

(c)  1:25

(d)  10:15

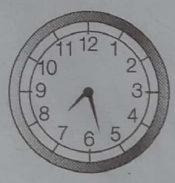
(e)  5:45

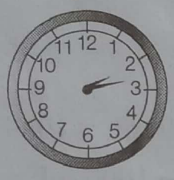
(f)  6:50

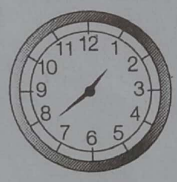
3. (d)

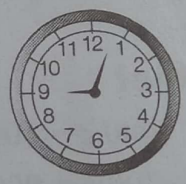
Exercise 9B

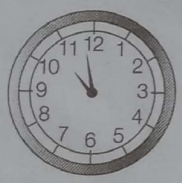
1. (a) 3:24 – Three twenty-four, twenty-four minutes past three
   (b) 9:58 – Nine fifty eight, two minutes to ten
   (c) 11:29 – Eleven twenty-nine, twenty-nine minutes past eleven
   (d) 12:15 – Twelve fifteen, fifteen minutes past twelve
   (e) 1:35 – One thirty-five, thirty-five minutes past one

2. (a)  7:28

(b)  2:13

(c)  1:38

(d)  9:02

(e)  10:58

(f)  6:39

Exercise 9C

1. (a) Ayushree's school bus arrives at the bus stop at 7:05 a.m.
   (b) She has a short break in the school at 11:15 a.m.
   (c) She comes back home at 2:30 p.m.
   (d) She watches her favourite cartoon show at 4:30 p.m.
   (e) After that she goes out to play tennis at 6:00 p.m.
   (f) She has her dinner at 8:00 p.m.
   (g) Once she was woken up at night by the noise of some people at 2:15 a.m.
   (h) She gets up at 5:30 a.m. everyday to get ready for school
2. (a) Half past one in the morning = 1:30 a.m.
   (b) Quarter to three in the evening = 2:45 p.m.
   (c) Twenty minutes past midnight = 12:20 a.m.

(d) Ten minutes to five in the evening = 4:50 p.m.
(e) Quarter past noon = 12:15 p.m.
(f) Eight twenty-six in the morning = 8:26 a.m.

3. (d)

Exercise 9D

1. (a) 8:30 a.m. – 8:10 a.m. = 20 min
   (b) 9:55 p.m. – 9:30 p.m. = 25 min
   (c) 12:30 p.m. – 11:55 a.m. = 35 min
   (d) 12:00 midnight – 11:40 p.m. = 20 min
2. (a) 10:10 a.m. – 7:20 a.m. = 2 h 50 min
   (b) 8:40 a.m. – 5:15 a.m. = 3 h 25 min
   (c) 12:05 p.m. – 10:50 a.m. = 1 h 15 min
   (d) 8:00 p.m. – 8:00 a.m. = 12 h
3. (a) 7:45 p.m. + 4:00 = 11:45 p.m.
   (b) 9:30 a.m. + 4:00 = 13:30 = 1:30 p.m.
   (c) 11:15 p.m. + 4:00 = 15:15 = 3:15 a.m.
   (d) 12 noon + 4:00 = 4 p.m.
   (e) 12 midnight + 4:00 = 4 a.m.
4. (a) 4 a.m. – 5:00 = 11 p.m.
   (b) 6 p.m. – 5:00 = 1 p.m.
   (c) 7:45 a.m. – 5:00 = 2:45 a.m.
   (d) 12 midnight – 5:00 = 7 p.m.
   (e) 11:50 p.m. – 5:00 = 6:50 p.m.
5. Kavita waited for 5:10 – 4:45 = 25 minutes
6. Length of journey = 2:20 p.m. – 10:00 a.m. = 4 h 20 min
7. (a) Sun was above the horizon for 7:23 p.m. – 5:32 a.m. = 13 h 51 min
   (b) Moon was seen for 5:17 a.m. – 8:10 a.m. = 9 h 7 min
8. (c) 6:15 p.m. – 4:40 p.m. = 1 hr 35 min

Exercise 9E

1. (a) 20:00 = 8 p.m. (b) 8:51 = 8:51 a.m. (c) 23:04 = 11:04 p.m. (d) 6:34 = 6:34 a.m.
2. (a) 12 midnight = 2400 hours (b) 1 a.m. = 0100 hours (c) 2:20 a.m. = 0220 hours
   (d) 5:40 a.m. = 0540 hours (e) 11:15 a.m. = 1115 hours (f) 12 noon = 1200 hours
   (g) 12:35 p.m. = 1235 hours (h) 1 p.m. = 1300 hours (i) 10:55 p.m. = 2255 hours
   (j) 11:10 p.m. = 2310 hours
3. (a) 1925 hours = 7:25 p.m. (b) 2200 hours = 10:00 p.m. (c) 1640 hours = 4:40 p.m.
   (d) 2310 hours = 11:10 p.m. (e) 2100 hours = 9:00 p.m. (f) 1735 hours = 5:35 p.m.
   (g) 1020 hours = 10:20 a.m. (h) 1150 hours = 11:50 a.m. (i) 0930 hours = 9:30 a.m.
   (j) 1205 hours = 12:05 p.m.
4. The next high tide will be 15:30 + 12:24 = 27:54 = 3:54 = 0354 hours
5. (a) 1700 hours – 1540 hours = 5 p.m. – 3:40 p.m. = 1 h 20 min
   (b) 1050 hours – 815 hours = 10:50 a.m. – 8:15 a.m. = 2 h 35 min
6. (b) 2000 hours = 8:00 p.m. – 4:30 h = 3:30 p.m.

Worksheet

1. Rita – D Cricket
2. Bunny – E Football
3. Sandy = C News
4. Arnie – B Art Magic
5. Kathy – A Cartoon

Exercise 9F

1. Do yourself.
2. Leap Years – 1876, 1988, 2000, 1996, 2008
3. (a) 4 weeks = 4 × 7 days = 28 days
   (b) 5 weeks 6 days = 5 × 7 days + 6 days = (35 + 6) days = 41 days
4. (a) 8 days = 8 ÷ 7 = 1 week 1 day (b) 30 days = 30 ÷ 7 = 4 weeks 2 days
5. (a) 3 years 4 months = 3 × 12 months + 4 months = 40 months.
   (b) 5 years = 5 × 12 months = 60 months
6. (a) 18 months = 18 ÷ 12 = 1 year 6 months (b) 44 months = 44 ÷ 12 = 3 years 8 months
7. Tourists stayed for 8 days + 11 days + 4 days = 23 days = 23 ÷ 7 = 3 weeks 2 days
8. 576 BC, 1469 AD, 1861 AD, 1869 AD, 1947 AD, 1953 AD, 1969 AD, 2013 AD
9. Next Olympics will be held in 2020 + 4 = 2024 + 4 = 2028 + 4 = 2032; 2024, 2028, 2032. They are leap years.
   Note: (Olympics games were to be held in 2020 but due to COVID they were held in 2021)
10. Her brother is 10 years – 3 years 4 months = 6 years 8 months
11. (b) 22nd July = Sunday (c) 5 Mondays (d) Last Saturday in July = 28th
12. (c) 30 days + 31 days = 61 days = 61 ÷ 7 = 8 weeks 5 days

Exercise 9G

1. Days from Independence day to Christmas = 16 + 30 + 31 + 30 + 25 = 132 days
2. Number of days from Jan 15 to Feb 29 = 16 + 29 = 45 days = 45 ÷ 7 = 6 weeks 3 days
3. 4 weeks 2 days = 4 × 7 days + 2 days = 30 days. May 25 + 30 days = June 24
4. World tour lasted from 4 Dec 2022 to 10 March 2023 = (28 + 31 + 28 + 10) days = 97 days
5. (c) 10 June 2022 + 40 days = 20 July 2022

Mental Maths

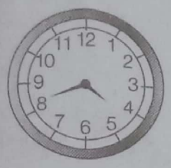
1. The year having 366 days is called a leap year.
2. In 1 hour 40 min = 60 min + 40 min = 100 min.
3. 30 months = 2 years 6 months.
4. 5 hours before 5:00 p.m. = 12 noon.
5. A television programme started at 7:45 p.m. and lasted half an hour. It got over at 8:15 p.m..
6. 2035 hours = 8:35 p.m. in a 12-hour clock.
7. 49 days = 7 weeks.
8. Eleven days after 20th May = 31st May.
9. Next Monday will fall on 23rd when 16th is on Monday.
10. In 3 years = 12 × 3 = 36 months.

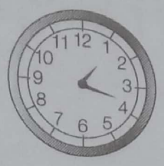
Chapter Test

1. (a) 4:12, 12 minutes past four (b) 5:43, Forty-three minutes past five

(c) 7:50, Fifty minutes past seven

(d) 2:28, Twenty-eight minutes past two

2. (a) 
4:40

(b) 
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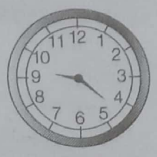
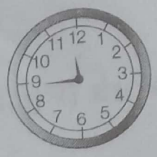
(c) 
9:23

(d) 
11:45

3. Mr Bakshi left Dehradun at 12 noon – 6 hours 40 min = 5:20 a.m.
4. 6 weeks 2 days = 6 × 7 + 2 = 44 days
   4 weeks 5 days = 4 × 7 + 5 = 33 days
   Difference = 44 days – 33 days = 11 days = 1 week 4 days
5. Rekha enters school at 9:15 a.m. and leaves at 15:45 hours. She stays in school for 15:45 – 9:15 = 6 hours 30 min.
6. Length of the trip from May 20 to June 4 = 12 + 4 = 16 days
7. (b) $\frac{5}{\cancel{7}} \times \cancel{70}^{10}$ min = 50 min
8. (d)
9. (a)
10. (c)

Challenge!

1. Distance = S × T = 330 m/s × 220 s
   = 72600 m = 72 km 600 m
2. Distance = 1 m/s × (60 × 60 + 4 × 60) s
   = 1 × 3840 m = 3 km 840 m
3. April 29 to May 21 = 2 + 20 = 22 days

Worksheet

1. Team I lasts from March 29 to May 5 = 3 + 30 + 5 = 38 days
2. Summer holidays are from May 6 to July 5 = 26 + 30 + 5 = 61 days = 8 weeks 5 days
3. Dussehra holidays are from October 11 to October 22 = 12 days
4. Term 3 is from October 23 to December 23 = 2 months
5. Winter holidays are from December 24 to Jan 10 = 8 + 10 = 18 days
6. Duration of Term 4 is from January 11 to February 18 = 21 + 18 = 39 days = 5 weeks 4 days
7. Exams lasted from Feb 19 to March 5 = 10 + 5 = 15 days
8. Total holidays = Summer holidays + Dussehra + Winter holidays + holidays + Celebration holidays + Sundays = 61 + 12 + 18 + 23 + 10 + 40 = 164 days
9. Working days = 365 – 164 = 201 days = 28 weeks 5 days
10. Working days are more than holidays