Chapter 10: Measuring Time

Problem Set 43 | Q 1.1 | Page 59

Write the time shown in the clock given below.

SOLUTION

25 minutes past 2.

Problem Set 43 | Q 1.2 | Page 59

Write the time shown in the clock given below.

SOLUTION

50 minutes past 7.

Problem Set 43 | Q 1.3 | Page 59

Write the time shown in the clock given below.

SOLUTION

5 minutes past 8.

Problem Set 43 | Q 1.4 | Page 59

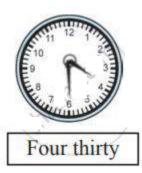Write the time shown in the clock given below.

40 minutes past 4.

Problem Set 43 | Q 2.1 | Page 59
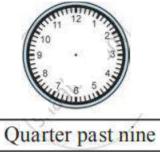**Draw the hands of the clock to show the time given in the box.**

Four thirty

Four thirty

Problem Set 43 | Q 2.2 | Page 59
Draw the hands of the clock to show the time given in the box.

Quarter past nine

Quarter past nine

Problem Set 43 | Q 2.3 | Page 59
Draw the hands of the clock to show the time given in the box.

Quarter to five

Quarter to five

Problem Set 43 | Q 2.4 | Page 59
Draw the hands of the clock to show the time given in the box.

20 minutes past 11

20 minutes past 11

Problem Set 43 | Q 3 | Page 59

If a bus that leaves Nashik at 5 o'clock in the morning reaches Pune that same day at ten-thirty in the morning, how long does the journey take?

SOLUTION

Hours.	Minutes.
1 0	3 0
- 5	0 0
5	3 0

∴ Bus took 5 hours 30 minutes.

Problem Set 43 | Q 4 | Page 59

A play that was to start at nine-fifteen at night was delayed by half an hour because of a power outage. What time did the play start?

SOLUTION

Hrs.	Min.	
9	1 5	Play to start
+	3 0	delayed
9	4 5	play started

∴ The play started at 9:45 at night.

Problem Set 43 | Q 5 | Page 59

If a train leaves Mumbai at ten-fifteen at night and reaches Nagpur at one forty the next afternoon, how long does the journey take?

SOLUTION

Ten fifteen at night to 12 midnight is

Hrs.	Min.	
1 2	0 0	
- 1 0	1 5	
1	4 5	hour

12 midnight to next 1:40 afternoon = 13 hours 40 minutes

Total times	
Hrs.	Min.
1	4 5
+ 1 3	4 0
1 5	2 5

∴ The total time of the journey is 15 hrs. 25 min.

PROBLEM SET 44 [PAGE 62]

Problem Set 44 | Q 1 | Page 62

The time below is given by the 12-hour clock. Write the same by the 24-hour clock.

30 minutes past 10 in the morning	_____
20 minutes past 1 in the afternoon	_____
10 minutes past 8 in the morning	_____
40 minutes past 5 in the evening	_____

SOLUTION

30 minutes past 10 in the morning	**10:30**
20 minutes past 1 in the afternoon	**13:20**
10 minutes past 8 in the morning	**8:10**
40 minutes past 5 in the evening	**17:40**

Problem Set 44 | Q 2 | Page 62

Match the following.

12-hour clock	24-hour clock
9:10 am	23:10
2:10 pm	7:25
5:25 pm	14:10
11:10 pm	9:10
7:25 am	17:25

12-hour clock	24-hour clock
9:10 am	9:10
2:10 pm	14:10
5:25 pm	17:25
11:10 pm	23:10
7:25 am	7:25

PROBLEM SET 45 [PAGE 63]

Problem Set 45 | Q 1.1 | Page 63
Add the following :
2 hours 30 minutes + 4 hours 55 minutes

SOLUTION

Hrs.	Min.
1	
2	3 0
+ 4	5 5
7	2 5

85 minutes = 1 hr 25 min.

Problem Set 45 | Q 1.2 | Page 63
Add the following :
3 hours 50 minutes + 4 hours 20 minutes

SOLUTION

Hrs.	Min.
3	5 0
+ 4	2 0
7	7 0
8	1 0

70 minutes = 1 hr 10 min.

Problem Set 45 | Q 1.3 | Page 63
Add the following :
3 hours 45 minutes + 1 hour 35 minutes

SOLUTION

Hrs.	Min.
3	4 5
+ 1	3 5
4	8 0
5	2 0

80 minutes = 1 hr 20 min

Problem Set 45 | Q 1.4 | Page 63
Add the following :
4 hours 15 minutes + 2 hours 50 minutes

SOLUTION

Hrs.	Min.
4	1 5
+ 2	5 0
6	6 5
7	0 5

65 minutes = 1 hr 05 min.

Problem Set 45 | Q 2.1 | Page 63
Subtract the following :
3 hours 10 minutes – 2 hours 40 minutes

Hrs.	Min.
2	60 + 10
~~3~~	1 0
- 2	4 0
0	3 0

Problem Set 45 | Q 2.2 | Page 63

Subtract the following :
5 hours 20 minutes – 2 hours 35 minutes

Hrs.	Min.
4	60 + 20
~~5~~	~~2 0~~
- 2	3 5
2	4 5

Problem Set 45 | Q 2.3 | Page 63

Subtract the following :
4 hours 25 minutes – 1 hour 55 minutes

Hrs.	Min.
3	60 + 25
~~4~~	~~2 5~~
- 1	5 5
2	3 0

Problem Set 45 | Q 2.4 | Page 63

Subtract the following :
6 hours 15 minutes – 2 hours 45 minutes

Hrs.	Min.
5	60 + 15
~~6~~	~~15~~
- 2	4 5
3	3 0

Problem Set 45 | Q 3 | Page 63

A government office opens at 7 in the morning and closes at 3 in the afternoon. How long is this office open?

3 in the afternoon = 15 hrs in 24 hrs clock

Hrs.	Min.	
1 5	0 0	Closing time
- 7	0 0	Opening time
8	0 0	

∴ The office remains open for 8 hours.

Problem Set 45 | Q 4 | Page 63

A movie starts at 45 minutes past 3 in the afternoon and finishes two and a half hours later. At what time does the movie end?

Hrs.	Min.	
3	4 5	Movie start
+ 2	3 0	Duration of movie
5	7 5	
6	1 5	Ends of the movie in the evening

∴ The movie ends at 6:15 in the evening.

Problem Set 45 | Q 5 | Page 63

Sakharam was ploughing the field from 8 in the morning. At 12:30 in the afternoon, he stopped and started for home. He reached home at 1:30. How long was he ploughing the field? How long did it take him to reach home from the field?

Hours	Minutes
1 2	3 0
- 8	0 0
4	3 0
Hours	**Minutes**
1 3	3 0
- 1 2	3 0
0 1	0 0

∴ He plough the field in 4 hours 30 Minutes.

∴ 1 Hour it takes him to reach home from the field.

Problem Set 45 | Q 6 | Page 63
Rambhau started the water pump at ten-thirty at night and put it off the same night at a quarter to twelve. How long was the water pump on?

Quarter to 12 is 11:45 pm

Hrs.	Min.	
1 1	4 5	Water pump put off
- 1 0	3 0	Pump started
1	1 5	

∴ The pump was on for 1 hour 15 minute.

Problem Set 45 | Q 7 | Page 63
Geeta taught in the classroom for 2 hours and 25 minutes in the morning and 1 hour and 45 minutes in the afternoon. How long was she teaching in all?

Hrs.	Min.	
2	2 5	Teaching in morning
+ 1	4 5	Teaching in the afternoon
3	7 0	70 min = 1 hr 10 min
4	1 0	

∴ The total teaching of Geeta was for 4 hrs 10 min.

Problem Set 45 | Q 8 | Page 63
If a bank is open for business from 10 in the morning to 4:30 in the evening, how long is it open?

SOLUTION

Here, in 24 hours clock, 4:30 in the evening = 16:30

Hours	Minutes	
1 6	3 0	Closes
- 1 0	0 0	Opens
6	3 0	

∴ Bank opens for 6 hours 30 minutes.

Problem Set 45 | Q 9 | Page 63
If a shop is open from 9:30 am to 10 pm, how long is it open?

SOLUTION

Here, 10 pm in 24 hours clock is 22:00

Hours	Minutes	
2 2	0 0	Shop closes
- 9	3 0	Shop opens
1 2	3 0	

∴ The shop opens for 12 hours 30 minutes.

Problem Set 45 | Q 10 | Page 63
If the Maharashtra Express leaving from Kolhapur at 15:30 arrives at Gondia the next day at 20:15, how long is the journey from Kolhapur to Gondia?

SOLUTION

15:30 to next 15:30 is 24 hours

Hours	Minutes	
1 9	60 + 15	
~~2 0~~	1 5	School ends
- 1 5	3 0	School begins

4	4 5	Hours

∴ 24 hours + 4 hours 45 minutes = 28 hours 45 minutes.