Time

Recall

Draw the hour Hand and write the time.

When did you go to bed yesterday?_____

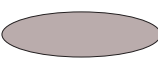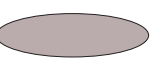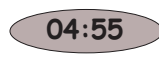When will you get up in the morning? _____

When will you go to school? _____

Look at the clock given and write the time	Draw hands in the Clocks to show time
⬭	11:40
⬭	04:55
⬭	01:40

5.1   Railway time

We are using 12 hours clock generally. We use railway time in railway station, Defence department, television and internet. We cannot see or hear the a.m. p.m. in any train time table or announcement because the railway time represents time in 24 hours.

     Generally railway times are written in 4 digits. The first two digits show the hour and the last two digits show the minutes.

24-Hours Clock

We can write,

Mid night 12 hour is 0000 hour or 24 hours		Noon 12 O'Clock – 12.00 hours	
9. am – 09.00 O'clock		1. p. m – 13.00 hours (12+1) hours	

While converting the 12 hour time to 24 hour time during pm we should add 12 to hours and keep the minutes same.

Conversion

12 hours Clock	24 hours Clock	12 hours Clock	24 hours Clock
12 Mid night	0000 hours or 2400 hrs	12:01 p.m.	12:01 Hours
0:20 a.m.	00:20 Hours	12:59 p.m.	12:59 Hours
0:49 a.m.	00:49 Hours	1:00 p.m.	13:00 Hours
1:00 a.m.	01:00 Hours	4:00 p.m.	16:00 Hours
4:00 a.m.	04:00 Hours	5:20 p.m.	17:20 Hours
5:30 a.m.	05:30 Hours	9:45 p.m.	21:45 Hours
11:15 a.m.	11:15 Hours	11:30 p.m.	23:30 Hours
12:00 Noon	12:00 Hours	12 Mid night	00:00 hrs or 24:00 hrs

Try this

Standard time	Railway time
1. 3.30 a.m.	_____ Hours
2. 4.15 p.m.	_____ Hours
3. _____	12.50 Hours
4. _____	20.15 Hours
5. 12.25 p.m.	_____ Hours
6. 01.55 p.m.	_____ Hours

24 hour Clock 12 hour Clock

2:20 am   2:20   Mid night 2 hours 20 minutes
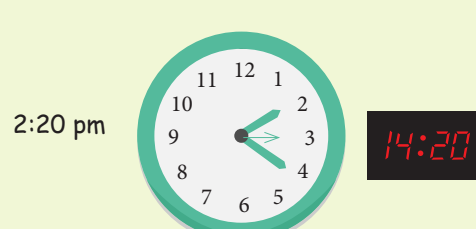
2:20 pm   14:20   After noon 2 hours 20 minutes

6:55 am		6:55
	Morning 6 hours 55 minutes	

6:55 am 6:55
Morning 6 hours 55 minutes

6:55 pm 18:55
Evening 6 hours 55 minutes

11:15 am 11:15
Morning 11 hours 15 minutes

11:15 pm 23:15
Night 11 hours 15 minutes

12:00 12:00
Noon 12 hours

12:00 00:00
Mid night 12 hours
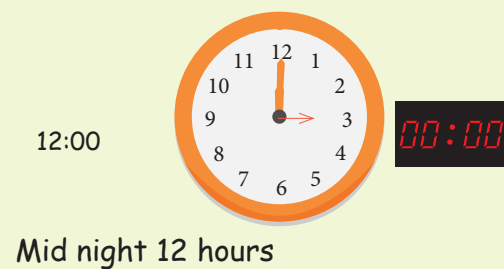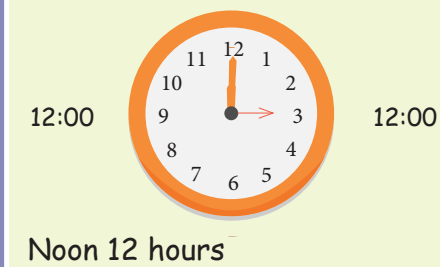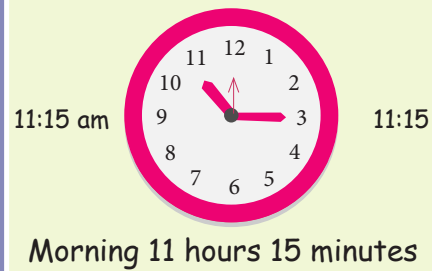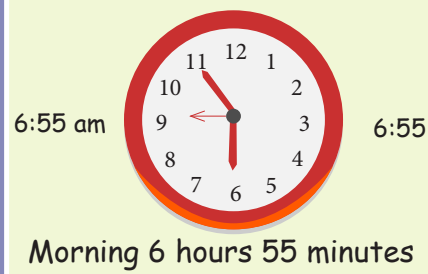
Try this

Write the A.M./P.M.

1. Ravi starts the school at 8:45 _____

2. Ramya eats lunch at 1:00_____

3. Afrin sees the moon at 8:20_____

4. Kavi goes to the bed at 9:00_____

5. The sun rises at 6:10_____

5.3 Use addition and subtraction in finding time interval

Addition

Examples

Add :   4 hours 30 minutes and 2 hours 45 minutes

	Hours	Minutes
	4	30
+	2	45
	6	75
	7	15

75 minutes = 1 hour 15 minutes

7 Hour 15 minutes

Examples

Krishna goes to his village. He travels 4 hours 35 minutes in bus and 1 hour 55 minutes in Two-Wheeler. What is the total time of his travel?

		Hours	Minutes
Travel in bus	=	4	35
Travel in Two-Wheeler	= +	1	55
		5	90
Total time	=	6	30

90 minutes = 60+30 minutes
60 minutes = 1 hour
30 minutes = 30 minutes
∴ 5+1 = 6 hour 30 minutes

∴ Krishna has travelled for 6 hour 30 minutes

Subtraction

Examples

Subtract :   3 hours 45 minutes from 5 hours 30 minutes

Hours	Minutes
5	30
- 3	45

Hours	Minutes
4	60+30 90
5̶	3̶0̶
- 3	45
1	45

1 Hour 45 minutes

We can't Subtract 45 minutes from 30 minutes so regroup 1hour from 5 hours as (60 + 30) 90 minutes and subtract 45 minutes from 90 minutes. We can get 45 minutes.

When we subtract 3 hours from 4 hours balance is 1 hour.

Examples

Ram works on his Computer from morning 10' O Clock to Evening 3.30. How long does he work in his computer?

		Hours	Minutes
Ram works on his Computer at Evening	=	3	30
He starts works at Morning	=	10	00

Hours	Minutes
15	30
- 10	00
5	30

Subtract from a.m. to p.m., we add 12 hours.

Add 3.30 hours + 12 hours we can get 15:30

∴ Ram works 5 hours 30 minutes in his computer

SCHOOL TIME TABLE

First bell	9:00 a.m.	Lunch time	12:40 p.m. to 2:00 p.m.
Morning prayer	9:15 a.m.	Afternoon school starting time	2:00 p.m.
Class starting time	9:30 a.m.		
Morning break time	11:00 a.m. to 11:10 a.m.	Afternoon break time	3:20 p.m. to 3:30 p.m.
Morning school closing time	12:40 p.m.	Evening school closing time	4:10 p.m.

1. Find out the duration between First bell time to morning break time.

		Hour	Minutes
Morning break time	=	11	00
First bell time	=	- 9	00
		2	00

The time interval between First bell and morning break time is **2 Hours.**

2. Find the time interval between the time of class starting and the time of morning break.

		Hour	Minutes
		10	(60 + 10)
Morning break ending time	=	11	10
Class starting time	=	- 9	30
		1	40

> We can't subtract 30 minutes from 10 minutes so we convert to hour into minutes 1 hours to 60 minutes and add.
>
> 60+10 = 70 now we subtract 30 minutes from 40 we can get 1 hour 40 minutes.

The time interval between class starting time and morning break ending time is 1 hour 40 minutes.

3. Find the total time from starting of morning class to closing of Afternoon class?

	Hour	Minutes
Afternoon school ending time =	4	10
Morning class starting time =	9	30

	Hours	Minute
		(60+10 = 70)
	15	
	16	10
	9	30
	6	40

> Add 12 hours, 4.10 + 12.00 = 16 Hours + 10 minutes.

The total time from starting of Morning class to closing of Afternoon class is 6 hours 40 minutes.

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Try this

Find the time interval between starting of Afternoon class to closing of Evening class

		Hour	Minutes
Evening school ending time	=	4	10
Afternoon school starting time	=	- 2	00

Subtract from am to pm, we add 12 hours and then subtract the a. m time

Exercise 5

1 **Write down your school time table of the following:**

a.   Morning school break time to morning school ending time.

b.   Morning school working time.

c.   Afternoon school working time.

d.   Afternoon Lunch break time.

BBL12A

2 **Match the following:**

12 hours Clock	24 hours Clock
9:40 a.m.	23:40 Hours
3:20 p.m.	6:25 Hours
6:25 p.m.	15:20 Hours
11:40 p.m.	9:40 Hours
6:25 a.m.	18:25 Hours

3 **Addition**

a.   4 hours 30 minutes +2 hours 50 minutes = _____

b.   4 hours 50 minutes +2 hours 30 minutes = _____

c.   3 hours 45 minutes +1 hours 35 minutes = _____

d.   1 hours 50 minutes +3 hours 45 minutes = _____

e.   2 hours 25 minutes +4 hours 50 minutes = _____

4 **Subtract**

a.   5 hours 10 minutes – 2 hours 35 minutes = _____

b.   4 hours 20 minutes – 2 hours 40 minutes = _____

c.   4 hours 25 minutes – 1 hours 20 minutes = _____

d.   6 hours 55 minutes – 2 hours 20 minutes = _____

e.   5 hours 45 minutes – 3 hours 55 minutes = _____

5 Answer the following:

a.   An office works from 10 a.m to 6 a.m What is the duration of working hours?

b.   A school works from morning 9 O'Clock to evening 4 O' Clock. What is the duration of working hours of the school?

c.   A circus starts at 12:15 pm and ends by 2:30 pm. What is the duration of circus?

d.   A bank works from morning 9:30 a.m. to 4:30 p.m. What is the working time of the bank?

e.   A man comes to his village in Tamilnadu from Ahmedabad. He travels 2 hours 15 minutes in Aeroplane and 4 hours 40 minutes in Car. What is the total time of travel?

f.   A painter paints a house for 3 hours 15 minutes in morning and 2 hours 50 minutes in evening. What is the total time he painted?

Project / Activity

[24 hours Clock]

Write the time of travel

Train Name	Starting time Chennai	Reaching time	Travelling time
Sarkar Express Kakkinoda	17:20	09:50	
Rameswaram Express train Rameswaram	19:15	08.35	
Ananthapuri Express Kollam	06:50	08.20	
Sozhan Express Train Trichirapalli	08:00	16.00	