

SESSION: 23

CLASS: 3

SUBJECT: MATHEMATICS

CHAPTER NUMBER: 10

CHAPTER NAME: TIME

SUBTOPIC: 24 HOUR CLOCK

CHANGING YOUR TOMORROW

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LEARNING OBJECTIVE:



Children will

- * Read the time correctly to the hour using a clock/watch
- * Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes,
- * Learn the importance of time and how it applies to everything we do is one of the most fundamental things students can learn in the classroom.
- * Students will learn the value of time by creating clocks and schedules, then reflecting, analyzing, and comparing different activities.





Exercise 10 (C)

D. A bus starts at 15:00 hrs and reaches its destination at 17:00 hrs. Write the starting time and reaching time according to the 12 hour clock.

Starting time 15:00 15 - 12 = 3 p.m.

Reaching time 17:00 17 - 12 = 5 p.m.





What is a 24-Hour Clock?
The 24 Hour Clock is a method of time telling that goes from Midnight to Midnight, divided into 24 hours and is indicated by the number of hours passed from Midnight, or 0 to 23.

24-Hour Clock is a worldwide used time format. Most of the people are wondering how this time format works and how to use it. You should know there are two types of time formats. One is the 24-Hour Time Format and the other one is 12-Hour Time Format.

RE

TIME 24 HOUR CLOCK



24-Hour Clock Conversion Chart

24-Hour Clock	12-Hour Clock
00:00 Hours	
01:00 Hours	
02:00 Hours	
03:00 Hours	
04:00 Hours	
05:00 Hours	
06:00 Hours	
07:00 Hours	
08:00 Hours	
09:00 Hours	
10:00 Hours	
11:00 Hours	

24-Hour Clock	12-Hour Clock
12:00 Hours	
13:00 Hours	
14:00 Hours	
15:00 Hours	
16:00 Hours	
17:00 Hours	
18:00 Hours	
19:00 Hours	
20:00 Hours	
21:00 Hours	
22:00 Hours	
23:00 Hours	

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24-Hour Clock Conversion Chart

24-Hour Clock	12-Hour Clock		
00:00 Hours	12:00 (MIDNIGHT)		
01:00 Hours	1:00 A.M.		
02:00 Hours	2:00 A.M.		
03:00 Hours	3:00 A.M.		
04:00 Hours	4:00 A.M.		
05:00 Hours	5:00 A.M.		
06:00 Hours	6:00 A.M.		
07:00 Hours	7:00 A.M.		
08:00 Hours	8:00 A.M.		
09:00 Hours	9:00 A.M.		
10:00 Hours	10:00 A.M.		
11:00 Hours	11:00 A.M.		

24-Hour Clock	12-Hour Clock	
12:00 Hours	12:00 (NOON)	
13:00 Hours	1:00 P.M.	
14:00 Hours	2:00 P.M.	
15:00 Hours	3:00 P.M.	
16:00 Hours	4:00 P.M.	
17:00 Hours	5:00 P.M.	
18:00 Hours	6:00 P.M.	
19:00 Hours	7:00 P.M.	
20:00 Hours	8:00 P.M.	
21:00 Hours	9:00 P.M.	
22:00 Hours	10:00 P.M.	
23:00 Hours	11:00 P.M.	

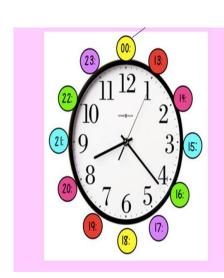
24 HOUR CLOCK



LETS RECAPITULATE

Quickly see the clock and find the time according to 12 hour clock:

- 1. 05:00 <u>5 a.m.</u>
- 2. 16:00 16-12=4 p.m.
- 3. 00 : 00 12 midnight
- 4. 20:00 20-12=8 p.m.
- 5. 12 : 00 12 noon
- 6. 13:00 13-12=1 p.m.



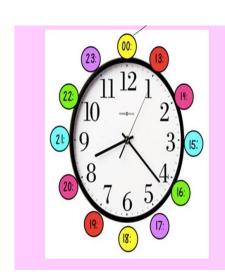
24 HOUR CLOCK



LETS RECAPITULATE

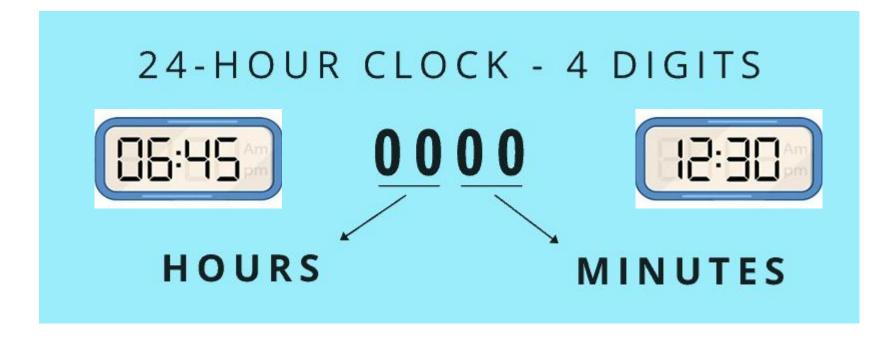
Quickly see the clock and find the time according to 24 hour clock:

- 1. 7 a.m. <u>07 : 00</u>
- 2. 2 p. m. 2 + 12 = 14 : 00
- 3. 12 midnight 00 : 00
- 4. 8 p.m. 8 + 12 = 20 : 00
- 5. 12 noon 12 : 00
- 6. 5 p.m. 5 + 12 = 17 : 00

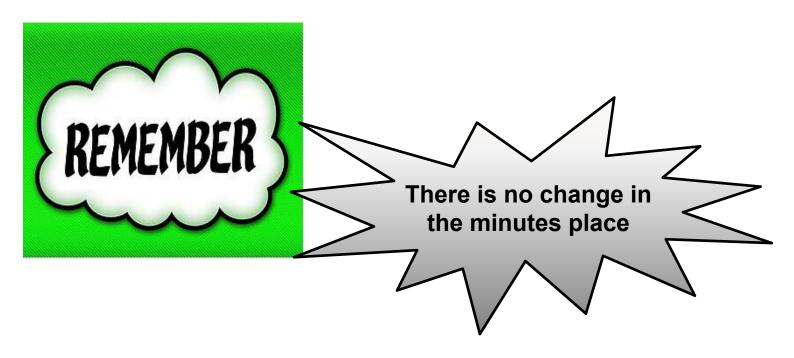


24 HOUR CLOCK









MATHS



The most important facts about the 24-hour clock time format:

- Hours don't repeat twice a day in this time format
- The 24-hour clock doesn't use AM and PM
- ➤ AM hours are the same in 24-hour time format as in 12-hour time format and are counting from 0 to 12
- > PM hours are different, they are counting from 13 to 24
- > The 24-hour clock contains four digits, the first two digits belong to hours and the second ones to minutes
- The minutes are always the same in both time formats



KEY POINTS TO REMEMBER

- There are two main ways to show the time: "12 Hour Clock" or "AM/PM":
- > 12 Hour Clock: the time is shown as how many hours and minutes since midnight.
- > AM/PM (or "12 Hour Clock"): the day is split into:
- the 12 Hours running from Midnight to Noon (the AM hours), and
- > the other 12 Hours running from Noon to Midnight (the PM hours).



Exercise-10 C Q. No E and F book page - 128 in the notebook.





24 HOUR CLOCK



E. A train starts at 11:00 a.m. and reaches its destination at 4:00 p.m. Write the starting time and reaching time according to the 24 hour clock.

Starting time 11 : 00 a.m. <u>11 : 00</u>

Reaching time 4:00 p.m. 4 + 12 = 16:00





F. Following is the train schedule for a train from Ahmedabad to Delhi. Study the table and answer the following questions.

Station	Arrival Time	Departure Time
Ahmedabad Junction	Start	17 : 40
Ajmer Junction	00 : 15	00 : 55
Jaipur	02 : 45	02 : 50
Gurgaon	06 : 25	06 : 27
Delhi Cantt.	06 : 43	06 : 45
New Delhi	07 : 30	End

24 HOUR CLOCK



1. At what time does the train start from Ajmer?

ANS. The train starts at 12 : 55 a.m. from Ajmer.

2. For how many minutes does the train halt at Jaipur?

ANS. The train halts for 5 minutes at Jaipur.

24 HOUR CLOCK



3. How much time does the train take to reach New Delhi?

ANS. The starting time is 17:40

The reaching time is 7:30

The time the train takes =
$$17:40 \xrightarrow{1 \text{ hr}} 18:40 \xrightarrow{1 \text{ hr}} 19:40 \xrightarrow{1 \text{ hr}} 20:40 \xrightarrow{1 \text{ hr}} 21:40 \xrightarrow{1 \text{ hr}} 22:40 \xrightarrow{1 \text{ hr}} 23:40 \xrightarrow{1 \text{ hr}} 00:40 \xrightarrow{1 \text{ hr}} 1:40 \xrightarrow{1 \text{ hr}} 2:40 \xrightarrow{1 \text{ hr}} 3:40 \xrightarrow{1 \text{ hr}} 4:40 \xrightarrow{1 \text{ hr}} 5:40 \xrightarrow{1 \text{ hr}} 6:40 \xrightarrow{50 \text{ min}} 7:30$$
The train takes = $17:40 \xrightarrow{1 \text{ hr}} 1:40 \xrightarrow{1 \text{ hr}} 2:40 \xrightarrow{1 \text{ hr}} 3:40 \xrightarrow{1 \text{ hr}} 4:40 \xrightarrow{1 \text{ hr}} 5:40$

The train takes 13 hours 50 min to reach New Delhi.

24 HOUR CLOCK



4. How much time does the train take to reach Gurgaon from Jaipur?

ANS. The starting time is 2:50

The reaching time is 6:25

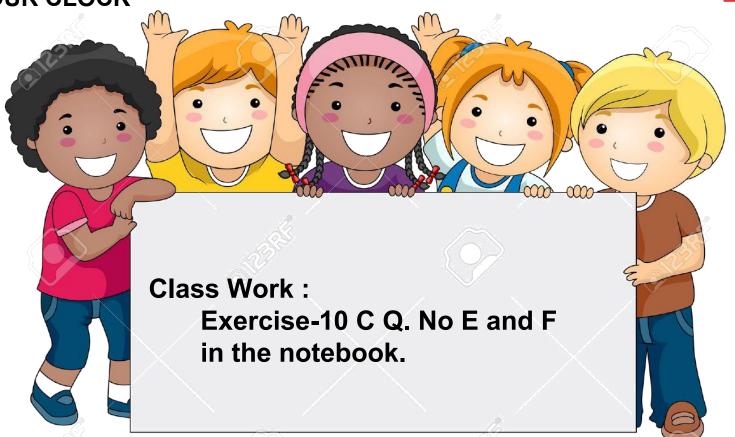
The time the train takes =
$$02:50 \xrightarrow{1 \text{ hr}} 03:50 \xrightarrow{1 \text{ hr}} 04:50 \xrightarrow{1 \text{ hr}} 05:50 \xrightarrow{35 \text{ min}} 06:25$$

$$05:50 \xrightarrow{55} 06:25$$

∴ The train takes 3 hours 35 min to reach Gurgaon from Jaipur.

24 HOUR CLOCK





LEARNING OUTCOME:



Children will be able to read the time correctly to the hour using a clock/watch. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes. Learn the importance of time and how it applies to everything we do is one of the most fundamental things students can learn in the classroom. Students will learn the value of time by creating clocks and schedules, then reflecting, analyzing, and comparing different activities.



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