

**Class-5**

**Subject-Mathematics**

**Chapter-12 (Time)**

**Lecture- 04 (Solution)**

1. Rakib was born on 25<sup>th</sup> February, 2010. His cousin Tanha was born after 7 days.

- a. How many hours are there in February 2010?
- b. Write the birth date of Tanha.

**Solution:**

a)

$$\begin{array}{r} 502 \\ 4 \overline{) 2010} \\ \underline{20} \phantom{0} \\ 10 \phantom{0} \\ \underline{8} \phantom{0} \\ 2 \phantom{0} \end{array}$$

Since there is a remainder, which is 2. So 2010 is not a leap year.  
So February, 2010 has 28 days.

Now,

28 days

= (28 × 24) hours [∵ 1 day = 24 hours]

= 672 hours

Ans: 672 hours.

b) From 'a' we get, February, 2010 has 28 days.

∴ Remaining day of February = 28 – 25 = 3 days

February will end 3 days after Rakib's birthday, and then March will start.

∴ Tanha's birthday will be = 7 – 3 = 4 March, 2010.

Ans: 4 March, 2010.

2. Kamal spent February 2012 in Dhaka.

a. How many hours did he spend in Dhaka?

b. How many seconds did he spend in Dhaka?

**Solution:**

a)

$$\begin{array}{r} 503 \\ 4 \overline{) 2012} \\ \underline{20} \phantom{00} \\ 12 \phantom{00} \\ \underline{12} \phantom{00} \\ 0 \end{array}$$

Since there is no remainder, so 2012 is a leap year.

So February has 29 days.

Now,

29 days

=  $(29 \times 24)$  hours [ $\because$  1 day = 24 hours]

= 696 hours

$\therefore$  Kamal spent 696 hours in Dhaka.

Ans: 696 hours.

**b)** From 'a' we get,

29 days = 696 hours

=  $(696 \times 60)$  minutes [ $\because$  1 hour = 60 minutes]

= 41760 minutes

=  $(41760 \times 60)$  seconds [ $\because$  1 minutes = 60 seconds]

= 2505600 seconds

$\therefore$  Kamal spent 2505600 seconds in Dhaka.

Ans: 2505600 seconds.

3. Mita starts her study at 7:30 p.m. and goes to bed at 10:30 p.m. every day.

- a. When does Mita start her study and go to bed in the 24 hour clock?
- b. How many hours does she study?

**Solution:**

a) Mita starts her study at 7:30 p.m.

In 24 hour clock Mita starts her study at = 12:00 + 7:30 = 19:30

Again, Mita goes to bed at 10:30 p.m.

In 24 hour clock Mita goes to bed at = 12:00 + 10:30 = 22:30

Ans: 19:30 and 22:30.

b) Mita starts her study at 7:30 p.m.

Mita goes to bed at 10:30 p.m.

∴ She continues study for = (10:30 – 7:30) hours  
= 3:00 hours

Ans: 3 hours.

4. Salam goes to bed at 10:30 p.m. and gets up at 6 a.m. in the morning.

- a. Express the time when Salma goes to bed in 24 hour clock.
- b. How long does she sleep?

**Solution:**

a) Salma goes to bed at 10:30 p.m.

In 24 hour clock she goes to bed at = 12:00 + 10:30 = 22:30

Ans: 22:30.

b)

-1 hour	Hour	Minute	+60 min
	12	00	
	-	10	
	1	30	

60
-30
30

Now,

Hour	Minute
6	00
+	1
7	30

∴ Salma sleep for 7 hours 30 minutes.

Ans: 7 hours 30 minutes.

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