

### Exercise 10.2

#### 1. Express in m. (100 cm=1 m)

a. 200 cm

Solv; Since 100 cm=1 m

$$200 \text{ cm} = 2 \text{ m}$$

c. 520 cm

Solv; 520 cm = 5m20cm

(since 100 cm = 1 m, ∴ 500 cm = 5 m and 20 cm)

f. 205 cm

Solv; 205 cm = 2 m 5 cm

#### 2. Express in cm. (1 m= 100 cm)

a. 3 m

Solv; Since 1 m= 100 cm

$$\therefore 3 \text{ m} = 300 \text{ cm}$$

d. 4 m 20 cm

Solv; 4 m 20 cm=420 cm

(Since 1 m = 100 cm, ∴ 4 m = 400 cm+20 cm = 420 cm)

h. 8 m 5 cm

Solv; 8 m 5 cm= 805 cm (since 1 m = 100 cm)

#### 3. Express in km. (1000 m = 1 km)

a. 4000 m

Solv; Since 1000 m= 1 km

d. 3720 m

Solv; Since 1000 m= 1 km

\* 4000 m = 4 km

\* 3720 m = 3 km 720 m (3000+720)

4. Express in m. (1 km = 1000 m)

a. 4 km

e.  $6\frac{1}{2}$  km

Solv; Since 1 km = 1000 m

Solv;  $6\frac{1}{2}$  km = 6500 m (since 1 km = 1000 m

\* 4 km = 4000 m

and  $\frac{1}{2}$  of 1000 is 500 or  $1000 \div 2 = 500$ )

5. Application in real life.

Given below are some Olympic records for various athletics events. Complete the Table and answer the following.

Events	Men		Women	
	m	cm	cm	m
High Jump	2 m 39 cm	239 cm	205 cm	2 m 1 cm
Pole Vault	5 m 92 cm	<u>592 cm</u>	460 cm	<u>4 m 60 cm</u>
Long Jump	8 m 90 cm	<u>890 cm</u>	740 cm	<u>7 m 40 cm</u>
Triple Jump	18 m 9 cm	1809 cm	1533 cm	15 m 33 cm
Shot put	22 m 47 cm	<u>2247 cm</u>	2241 cm	<u>22 m 41 cm</u>

a) How many more cm for the pole vault men's record to reach 6 m?

Solv; Pole Vault men's record is 592 cm

To reach 6 m,

$$6 \text{ m} = 600 \text{ cm (since } 1 \text{ m} = 100 \text{ cm)}$$

$$\begin{aligned} \ast \text{ Differences} &= 600 - 592 \text{ cm} \\ &= 8 \text{ cm} \end{aligned}$$

b) What is the difference between the men's and women's records in long jump?

(Hint:  $890 - 740 \text{ cm}$ .) Using the hint solve the above question.

c) How many cm higher for the high jump men's record to touch  $2 \frac{1}{2}$  metres?

(Hint:  $1 \text{ m} = 100 \text{ cm}$ ,  $\frac{1}{2} \text{ m} = 50 \text{ cm}$ )

Using the hint solve the above question.

### Exercise 10.3

Remember:  $500 \text{ ml} = \frac{1}{2} \text{ L}$

$$250 \text{ ml} = \frac{1}{4} \text{ L}$$

$$750 \text{ ml} = \frac{3}{4} \text{ L}$$

1. Express in litres. ( $1000 \text{ ml} = 1 \text{ L}$ )

a. 3000 ml

Solv; Since  $1000 \text{ ml} = 1 \text{ L}$

$$3000 \text{ ml} = 3 \text{ L}$$

c. 1500 ml

Solv; Since  $1000 \text{ ml} = 1 \text{ L}$  and

$$500 \text{ ml} = \frac{1}{2} \text{ L}$$

$$\ast 1500 \text{ ml} = 1 \frac{1}{2} \text{ L}$$

h. 8750 ml

Solv; Since  $1000 \text{ ml} = 1 \text{ L}$

$$\ast 8750 \text{ ml} = 8 \frac{3}{4} \text{ L (Since } 750 \text{ ml} = \frac{3}{4} \text{ L)}$$

2. Express in millilitres (ml). (1 litre = 1000 ml)

a. 7 L

c.  $3 \frac{1}{2}$  L

Solv; Since 1 L = 1000 ml

solv; 1 L = 1000 ml and  $\frac{1}{2}$  L = 500 ml

$$\ast 7 \text{ L} = 7000 \text{ ml}$$

$$\ast 3 \frac{1}{2} \text{ L} = 3500 \text{ ml}$$

f.  $5 \frac{1}{4}$  L

Solv; 1 L = 1000 ml and  $\frac{1}{4}$  L = 250 ml

$$\ast 5 \frac{1}{4} \text{ L} = 5250 \text{ ml}$$

### Exercise 10.4

**Remember: 1000 g = 1 kg**

$$500 \text{ g} = \frac{1}{2} \text{ kg}$$

$$250 \text{ g} = \frac{1}{4} \text{ kg}$$

$$750 \text{ g} = \frac{3}{4} \text{ kg}$$

1. Express in kg(kilogram).

c. 3500 g

Solv;  $3500 \text{ g} = 3 \frac{1}{2} \text{ kg}$  (Since  $1000 \text{ g} = 1 \text{ kg}$  and  $500 \text{ g} = \frac{1}{2} \text{ kg}$ )

2. Express in g (gram).

d.  $2 \frac{1}{4}$  kg

Solv;  $2 \frac{1}{4} \text{ kg} = 2250 \text{ g}$  (Since  $1 \text{ kg} = 1000 \text{ g}$  and  $\frac{1}{4} \text{ kg} = 250 \text{ g}$ )

## 12. Time

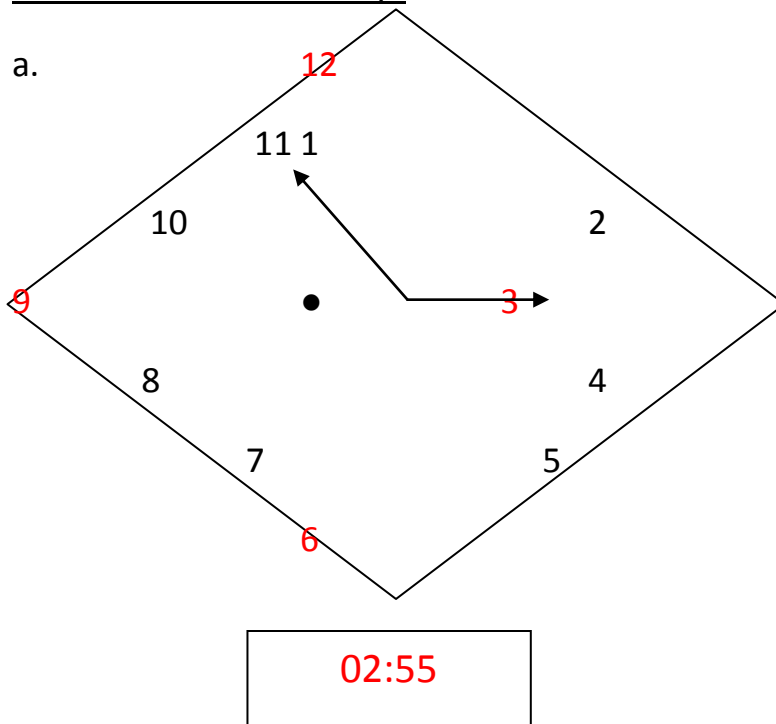
Remember: Time is always written with two dots separating the hours and the minutes.

Eg: 1:30 AM or 12:15 PM

### Exercise: 12.1

Give the time in two ways.

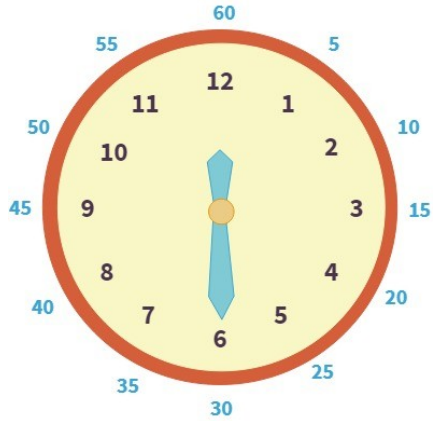
a.



Ans. 55 minutes past 2 O'clock 2:55 or 5 minutes to 3 O'clock.

### Exercise 12:2

Using the below picture answer the following questions (Ex.12.2 Q1-Q4).



### Exercise 12.3

4. What is the time? Use a.m. or p.m.

c. 3 hours before 10:20 a.m.

Solv: 3 hrs before 10:20 a.m.

$$10 - 3 = 7 \text{ (take only the hours)}$$

To subtract)

∴ 7:20 a.m.

d. 3 hours after 10:20 p.m.

Solv: 3 hrs after 10:20 p.m.

$$10 + 3 = 13 \text{ (take only hours to}$$

add)

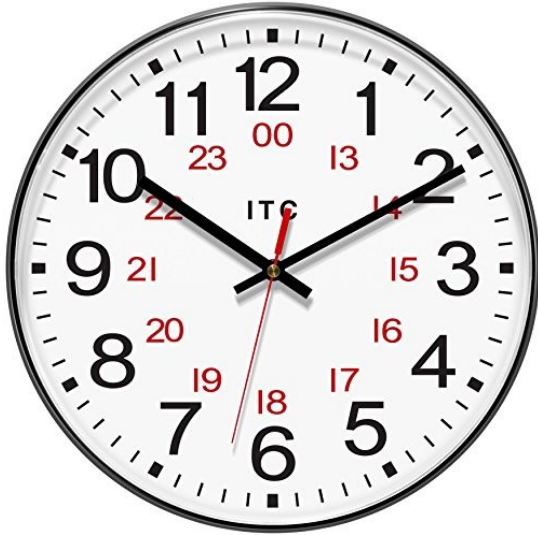
∴ 1:20 a.m.

(Since in a 12-hrs clock, after

12 is 1 O'clock)

### Exercise 12.4

Using the below picture answer the following questions: (Ex.12.4 Qs1-3).



24-hour clock

4. Smriti arrives at the railway station at 6:40 p.m. The train is supposed to come at 19:40 hours. How long does she have to wait?

Solv: 12-hours

24-hours

6:40 p.m. - 18:40 p.m.

7:40 p.m. - 19:40 p.m.

1 hour

∴ Smriti have to wait for 1 hour.

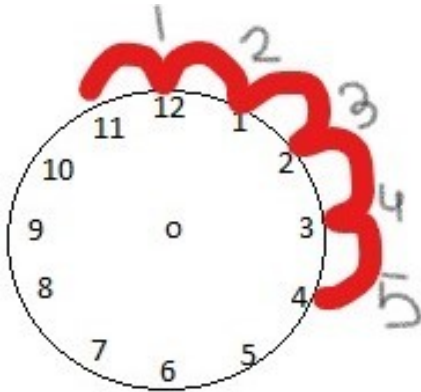
### Exercise 12.5

1. How many hours are there between?

a. 11:00 a.m. and 4:00p.m.?



= 5 hours (look at the picture for counting)



b. 10:00 a.m. and 10:00 p.m.?

= 12 hours (Since it covers from 10 a.m. to 10 p.m.)

2. What is the time? Use a.m. or p.m.

a. 10 min after 3: 15 a.m.

= 3: 25 a.m. (Add the min  $10+15=25$ )

d) 15 min after 11: 55 a.m.

= 12: 10 p.m. ( $15+55=70$  min, but  $1\text{hr}=60\text{mins}$   $\therefore 70-60 = 10\text{min}$  and  $11+1=12$ )

3. Application in real life

a. School starts at 8:00 a.m. and closes at 3:00 p.m. How many hours is the school open for?

Solv: School starts= 8:00 a.m.

It ends = 3:00 p.m.

Hours spent in the school = ?

8 → ~~9~~ → ~~10~~ → 11 → 12 → 1 → 2 → 3 (School timing)

1 2 3 4 5 6 7 (hours spent in the school)

\* The school opens for 7 hours.

c. Prachi started practising the veena at 1:15 p.m. and finished 1 hour 20 minutes later. At what time did she finish?

Solv: Prachi started practise at 1:15 p.m.

And Finishes her practise at 1 hour 20 minutes

$$= 1:15 + 1:20$$

$$= 2:35 \text{ p.m.}$$

\* She finished her practice at 2:35 p.m.

d. Nikhil's birthday party started at 11:45 a.m. and finished 3 hours 40 minutes later. When did his friends leave?

Sol: Party started= 11:45 a.m.

Party ended after 3 hours 40 minutes later

His friends leave = 11:45 + 3:40

$$= 11 : 45$$

(1 hr = 60 mins)

$$\begin{array}{r} + 3 : 40 \\ \hline \end{array}$$

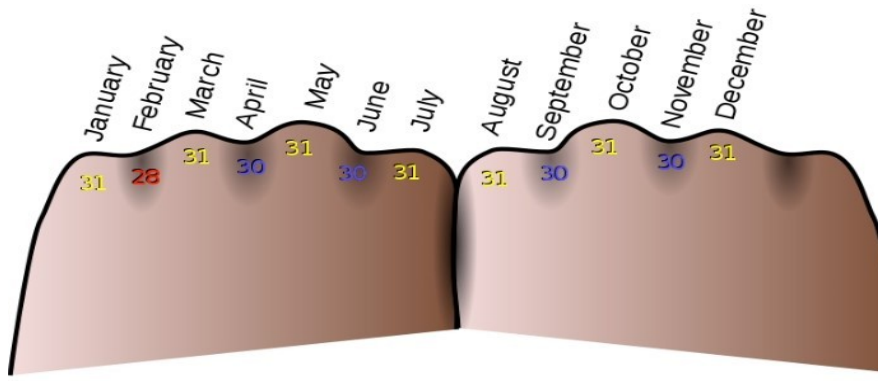
$$14 : 85 \quad (15:25)$$

(85-60= 25 and 60 mins= 1 hr so 14+1= 15)

$$= 15:25 \text{ (24-hour clock)}$$

$$= 3:25 \text{ p.m. (12-hour clock)}$$

## Exercise 12.6



### 1. Calculate the number of days:

a. from September 12 to October 5. Include both days.

Hint: Sept. 30 days, count both 12 Sept. and 5 Oct.

b. from January 17, 2008 to February 12, 2008. Include only the last day.

Hint: Jan. 30 days, count from 18 Jan. – 12 Feb.

### 2. Application in real life

a. Varun's exams begin on March 17<sup>th</sup> and get over on March 29<sup>th</sup>. How long are his exam?

Sol: Varun's exam begin – 17<sup>th</sup> March

Varun's exam ends – 29<sup>th</sup> March

17 18 19 20 21 22

23 24 25 26 27 28 29

13 days

∴ Varun's exams last for 13 days.

b. Meghna started knitting a muffler on Republic day. If she finished knitting it on February 20<sup>th</sup>, how long did she take to knit it?

Sol: Meghna started knitting on Republic day – 26 January

Finishes on 20<sup>th</sup> Feb.

January- 26 27 28 29 30 31	6days	
February- 1 2 3 4 5 6 7		+
8 9 10 11 12 13 14	20days	
15 16 17 18 19 20	=26 days	

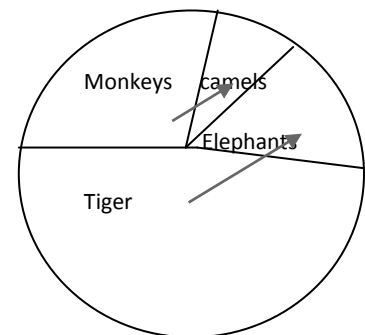
∴ Meghna takes 26 days to finish the muffler.

### 13. Handling Data

#### Exercise 13.2

1. Zeenat made a circle chart of the favourite animal of children visiting the zoo. Look at the circle chart and mark True (T) or False (F).

- a) More children like tigers than monkeys. True
- b) The least favourite animal is the elephant. False
- c) More children like camels than tigers. False
- d) The third most loved animal is the elephant. True
- e) More children like monkeys, camels and elephants put together than tigers. True.



2. Look at the circle graph showing how different children come to school. Fill in the blanks choosing from all, half or one-fourth.

- a) Half the children come by bus.

b) One-fourth the children come walking.

c) One-fourth of the children use other means of transport.

If the circle represents 100 children, give the number.

50 children come by bus. {Hint: what is  $\frac{1}{2}$  of 100}

25 children come walking. {Hint:  $\frac{1}{4}$  of 100}

25 children use other means of transport. {Hint:  $\frac{1}{4}$  of 100}

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