

Chapter- 13 Time and Temperature

Exercises

Let's Recall

A) Fill in the blanks.

- 1) 60 minutes = 1 hour
- 2) 48 hours = 2 days
- 3) Quarter past 7 = 7:15
- 4) 2 minute 43 seconds = 163 seconds
- 5) 1 year = 52 weeks
- 6) The hour hand goes round the clock 2 times in a day .
- 7) 7:30 in the evening is written as 7:30 pm (am/pm)
- 8) The time from 12 midnight to 12 noon is read and written as am (am/pm)
- 9) A leap year comes once in 4 years .
- 10) February month in a leap year has 29 days

B) Convert into 24 hr clock time .

- 1) 11:30 pm - 23:30
- 2) 12:25 am - 00:25
- 3) Quarter to 4 in the evening - 15:45
- 4) 30 mins to 12 in the noon - 11:30

C) Convert into 12 hr clock time .

- 1) 7:35 - 7:35 am
- 2) 14:20 - 2:20 pm
- 3) 20:45 - 8:45 pm
- 4) 00:00 - 12 midnight

Exercise. 13.1

A) Convert to hours .

1) 9 Days

1 day = 24 hours

9 days = 24×9

Ans = 216 hours

2) 10 days 5 hours

1 day = 24 hours

10 days 5 hours = $10 \times 24 + 5$
= $240 + 5$ hours

Ans = 245 hours

3) 15 days 2 hour

1 day = 24 hours

15 days 2 hours = $15 \times 24 + 2$
= $360 + 2$ hours

= 362 hours

B) Convert to days .

1) 96 hours

24 hours = 1 day

96 hours = $(96 \div 24)$ days

Ans = 4 days

2) 144 hours

24 hours = 1 day

144 hours = $(144 \div 24)$

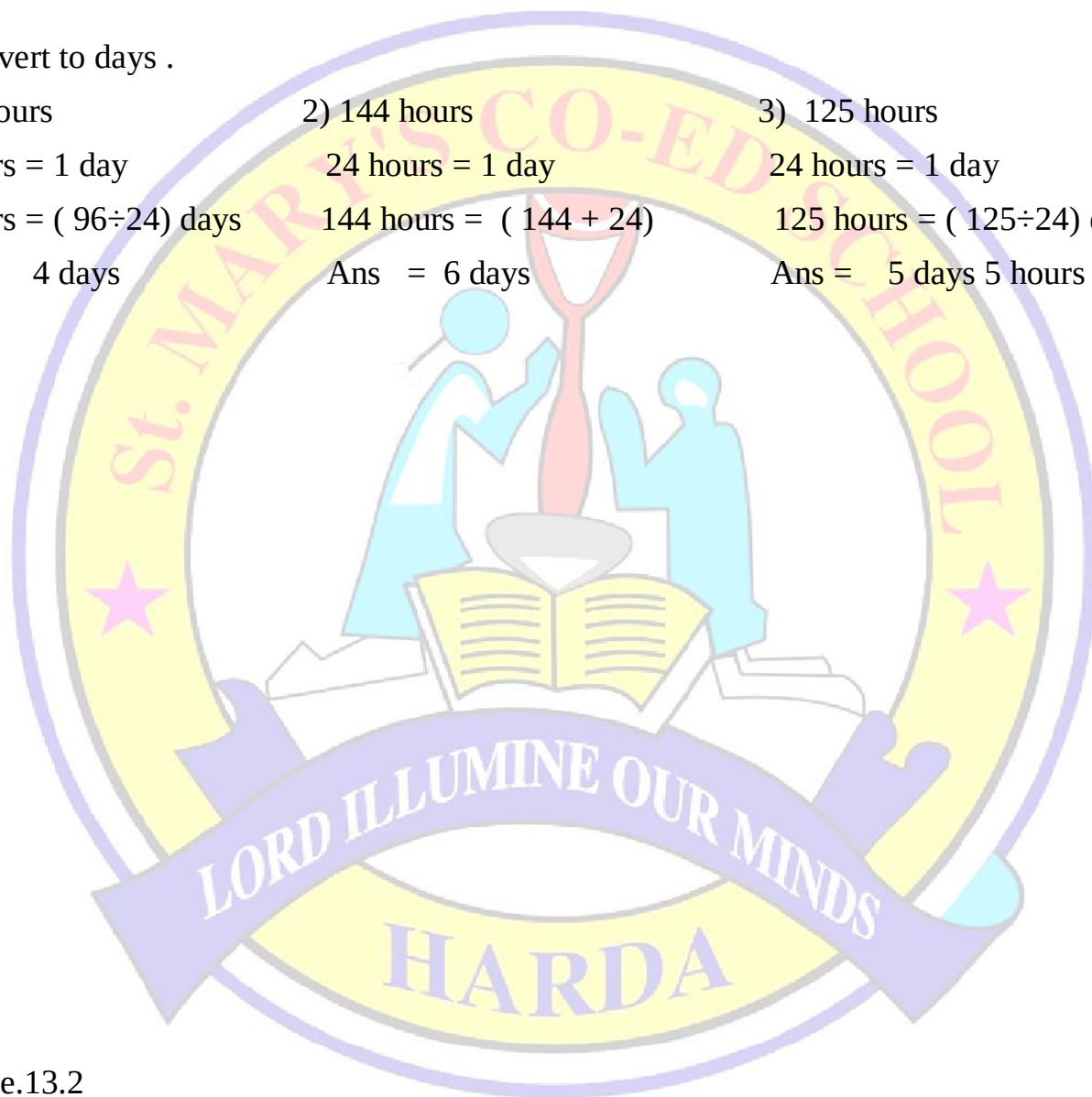
Ans = 6 days

3) 125 hours

24 hours = 1 day

125 hours = $(125 \div 24)$ days

Ans = 5 days 5 hours



Exercise.13.2

A) Solve

1) Kiran was given 10 hours to complete her assignment. She completed it in 7 h 10 min . How much time did she save ?

Ans: Time given to complete her assignment = 10 hours

She completed her assignment = 7 h 10 min

Duration = 10 hours - 7 h 10 min
= 2 hrs 50 min

14 Nov--- 14 Dec --- 25 Dec

1 month + 12 days

30 days + 12 days

42 days

Ans: She learn singing for 42 days

Exercise.13.4

Fill in the blanks .

- 1) The instrument used to measure temperature is called Thermometer .
- 2) The freezing point of water is 0°C or 32°F .
- 3) The boiling point of water is 100°C or 212°F .
- 4) The normal temperature of a human being is 37°C .
- 5) The two scales on the thermometer are Celsius scale and Fahrenheit scale .

Exercise.13.5

A) Change the following temperatures into Fahrenheit scale .

1) 80°C

$$80 \times 9 = 720^{\circ}$$

Divide the ans by 5

$$720 \div 5 = 144$$

Add 32 to the answer

$$144 + 32 = 176^{\circ}$$

Ans: 176°F

2) 75°C

$$75 \times 9 = 675$$

Divide the ans by 5

$$675 \div 5 = 135$$

Add 32 to the answer

$$135 + 32 = 167^{\circ}$$

Ans: 167°F

3) 0°C

$$0 \times 9 = 0$$

Divide the ans by 5

$$0 \div 5 = 0$$

Add 32 to the answer

$$0 + 32 = 32^{\circ}$$

Ans: 32°F

4) 90°C

$$90 \times 9 = 810$$

Divide the ans by 5

$$810 \div 5 = 162$$

Add 32 to the answer

$$162 + 32 = 194^{\circ}$$

Ans: 194°

B) Change the following temperatures into Celsius scale .

1) 95°F

$$95 - 32 = 63$$

Multiply the ans by 5

$$63 \times 5 = 315$$

Divide the product by 9

$$315 \div 9 = 35^\circ\text{C}$$

$$95^\circ\text{F} = 35^\circ\text{C Ans}$$

2) 131°F

$$131 - 32 = 99$$

Multiply the ans by 5

$$99 \times 5 = 495$$

Divide the product by 9

$$495 \div 9 = 55^\circ\text{C}$$

$$131^\circ\text{F} = 55^\circ\text{C Ans}$$

3) 86°F

$$86 - 32 = 54$$

Multiply the ans by 5

$$54 \times 5 = 270$$

Divide the product by 9

$$270 \div 9 = 30^\circ\text{C}$$

$$86^\circ\text{F} = 30^\circ\text{C Ans}$$

4) 194°F

$$194 - 32 = 162$$

Multiply the ans. By 5

$$162 \times 5 = 810$$

Divide the product by 9

$$810 \div 9 = 90^\circ\text{C}$$

$$194^\circ\text{F} = 90^\circ\text{C Ans}$$

C) Solve .

1) Your European friend has landed in Rajasthan where the temperature is 42°C .

He wants to know how much will that be in degree Fahrenheit .

Help him know the correct answer .

Solution: Temperature in Celsius = 42°C

Temperature in Fahrenheit = $F = \frac{^\circ\text{C} \times 9}{5} + 32$

$$\frac{42 \times 9}{5} + 32$$

$$5$$

$$\frac{378}{5} + 32$$

$$5$$

$$= 75.6 + 32$$

$$= 107.6^\circ\text{F Ans.}$$

2) The temperature of Mumbai at day time is 35°C . In night time, it is 10°F less. What is the temperature of Mumbai in $^\circ\text{F}$ during night time ?

Solution= Temperature at day time = 35°C

Temperature at day time in Fahrenheit =

$$F = \frac{^{\circ}C \times 9}{5} + 32$$

$$= \frac{35^{\circ} \times 9}{5} + 32$$

$$= \frac{315}{5}$$

$$F = 63 + 32 = 95^{\circ}F$$

Temperature in night time = 10°F less

Temperature in night time = 95°F - 10°F

$$= 85^{\circ}F$$

Ans: 85°F

