CLASS -7   MATHEMATICS
CHAPTER-2 Exercise-2.3

4. Which is greater:

(i) (2/7) of (3/4) or (3/5) of (5/8)

Solution:-

= (2/7) × (3/4) and (3/5) × (5/8)

= (2/7) × (3/4)

= (2 × 3)/ (7 × 4)

= (1 × 3)/ (7 × 2)

= (3/14) ... [i]

= (3/5) × (5/8)

= (3 × 5)/ (5 × 8)

= (3 × 1)/ (1 × 8)

= (3/8) ... [ii]

Now, convert [i] and [ii] into like fractions,

Now, convert [i] and [ii] into like fractions,

LCM of 14 and 8 is 56

[(3/14) × (4/4)] = (12/56)

[(3/8) × (7/7)] = (21/56)

(12/56) < (21/56)

(3/14) < (3/8)

(ii) (1/2) of (6/7) or (2/3) of (3/7)

Solution:

= (1/2) × (6/7) and (2/3) × (3/7)

= (1/2) × (6/7)

= (1 × 6)/ (2 × 7)

= (1 × 3)/ (1 × 7)

= (3/7) ... [i]

= (2/3) × (3/7)

= (2/3) × (3/7)

= (2 × 3)/ (3 × 7)

= (2 × 1)/ (1 × 7)

= (2/7) ... [ii]

By comparing [i] and [ii],

(3/7) > (2/7)

5. Saili plants 4 saplings, in a row, in her garden. The distance between two adjacent saplings is ¾ m. Find the distance between the first and the last sapling.

Solution:-

The distance between two adjacent saplings
= ¾ m

Number of saplings planted by Saili in a row
= 4

Then, number of gap in saplings = ¾ × 4

Number of saplings planted by Saili in a row = 4

Then, number of gap in saplings = ¾ × 4

= 3

∴The distance between the first and the last saplings = 3 × ¾

= (9/4) m

= 2 ¼ m

Hence, the distance between the first and the last saplings is 2 ¼ m.

6. Lipika reads a book for 1 ¾ hours every day. She reads the entire book in 6 days. How many hours in all were required by her to read the book?

Solution:-

Lipika reads the book for = 1 ¾ hours every day = 7/4 hours

Number of days she took to read the entire

Lipika reads the book for = 1 ¾ hours every day = 7/4 hours

Number of days she took to read the entire book = 6 days

∴Total number of hours required by her to complete the book = (7/4) × 6

= (7/2) × 3

= 21/2

= 10 ½ hours

Hence, the total number of hours required by her to complete the book is 10 ½ hours.

7. A car runs 16 km using 1 litre of petrol. How much distance will it cover using 2 ¾ litres of petrol.

Solution

The total number of distance travelled by a car in 1 liter of petrol = 16 km

Then,

Hence, the total number of hours required by her to complete the book is 10 ½ hours.

7. A car runs 16 km using 1 litre of petrol. How much distance will it cover using 2 ¾ litres of petrol.

Solution

The total number of distance travelled by a car in 1 liter of petrol = 16 km

Then,

Total quantity of petrol = 2 ¾ liter = 11/4 liters

Total number of distance travelled by car in 11/4 liters of petrol = (11/4) × 16

= 11 × 4

= 44 km

∴Total number of distance travelled by car in 11/4 liters of petrol is 44 km.