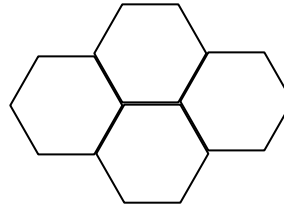


CLASS VI
MATHEMATICS
RATIO AND PROPORTION

1. Find the ratios of the following in simplest form:
 - (a) 55 minutes to 1 hour
 - (b) 5.3 m to 53 cm
 - (c) 10 litres to 0.25 litres
 - (d) 4 to 5.60
 - (e) 4 dozen to 96
 - (f) \square 28 to 28 paise
 - (g) 2 kg to 400 gm
 - (h) 3.80 to 0.019
2. Which of the following ratios is the greatest and which is the least? Also write them in ascending order:
1: 2 ; 4:5 ; 3:4
3. If the number of boys in a class is 'b' and the number of girls is 'g' then find the ratio of number of number of girls to total number of students.
4. If 18 people can be accommodated in 3 vans, then find the number of vans needed to accommodate 57 people.
5. Find x so that the given terms are in proportion
 - (a) 20, 18, 40, x
 - (b) 32, x, 6, 12
6. Find x in the following proportions:
 - (a) $x : 6 = 55 : 11$
 - (b) $16 : 18 = x : 96$
7. The ratio of length of a rectangle to its width is 4 : 3. Find the length if its width is 48m.
8. Divide Rs 1500 among A, B, C in the ratio 4 : 5 : 6.
9. Seema can type 150 words in 3 minutes. Find out
 - (a) In how much time she can type 375 words?
 - (b) How many words can she type in 9 min 30 seconds?
10. An office opens at 9 a.m. and closes at 5 p.m. with lunch interval of 30 minutes. What is the ratio of lunch interval to the total office hours?
11. Compare the following ratios:
 - (a) 3: 4 and 9 : 16
 - (b) 4 : 7 and 5 : 8
 - (c) 15: 16 and 24 : 25
 - (d) 7 : 6 and 24 : 9
12. Sunita's yearly income is Rs 1,25,000 and her expenditure is Rs 75,000. Find her :
 - (a) Yearly savings
 - (b) savings : expenditure
 - (c) earnings : savings
 - (d) earnings : expenditure
 - (e) expenditure : savings

CLASS VI
MATHEMATICS
PERIMETER AND AREA

1. Four regular hexagons are drawn so as to form a design as shown in the figure. If the perimeter of the design is 28 cm, find the length of each side of the hexagon.



2. Length of a rectangle is three times its breadth. Perimeter of the rectangle is 40 cm. Find its length and width.

3. The length of a rectangular field is twice its breadth. Jamal jogged around it four times and covered a distance of 6 km. What is the length of the field?

4. The lawn in front of the Meena's house is 12m X 8m, whereas the lawn in front of the sheena's house is 15m X 5m. A bamboo fencing is built around both the lawns. How much fencing is required for both?

5. The length of a rectangular field is 8m and breadth is 2m. If a square field has the same perimeter as the rectangular field, find which field has the greater area?

6. The perimeter of a square garden is 48m. A small flower bed covers 18 sq m area inside this garden. What is the area of the garden that is not covered by the flower bed? Find the ratio of the area covered by the flower bed and the remaining area.

7. Perimeter of a square and a rectangle is same. If a side of the square is 15 cm and one side of the rectangle is 18 cm, find the area of the rectangle.

8. A wire is cut into several small pieces. Each of the small pieces is bent into a square of side 2cm. If the total area of the small squares is 28 sq cm, what was the original length of the wire?

9. In an exhibition hall, there are 24 display boards each of length 1m 50cm and breadth 1m. There is a 100m long aluminium strip, which is used to frame these boards. How many boards will be framed using this strip? Also find the length of the aluminium strip required for the remaining boards.

10. How many envelopes can be made out of a sheet of paper 150 cm by 60 cm, if each envelope requires a paper size 12 cm by 5 cm ?

11. Find the number of tiles required to cover a square floor of side 15m, if the dimensions of the tile are 15 m by 3 m. If each tile costs Rs. 12.50, what is the total cost incurred?

12. Find the area of a chocolate bar having 9 square pieces of side 4 cm.

13. A wire in the shape of a regular octagon with side 24 cm is rebent into a regular hexagon. Find the side of the hexagon so formed.

14. If the area of a square is 9 sq cm, what would be the new area if its side is reduced by 1 cm ?

15. Find the area of a square if its side : a) becomes twice b) becomes half.