

6th – Ratio And Proportion - I



Ratio: comparing two quantities by division is called ratio. In 4:9, 4 is called the first term or antecedent and 9 is called second term or consequent.

- Two quantities must be in same units
 - The units should not be used in finding ratio
 - Ratio must be expressed in simplest form
- Q1. Express the following ratios in their simplest form:

a) 150:400 b) 85:255 c) 45 hours to 72 hours

Q2. Find the ratio of the following:

a) 36 minute to 2 hours b) 50 cm to 5 meters c) 32 g to 3 kg
d) 3 days to 1 year e) 2 dozen to 1 score f) Rs 4.5 to 75 paise

Q3. Compare: a) 5:12 and 3:8. b) 9:11 and 10:9 c) 3:10 and 15:40

Q4. Length and breadth of a rectangular field are 50 m and 15 m respectively. Find the ratio of the length to the breadth of the field.

Q5. Divide Rs 60 in the ratio 1:2 between Kriti and Kiran.

Q6. Distance travelled by Hamid and Akhtar in an hour are 9 km and 12 km. Find the ratio of speed of Hamid to the speed of Akhtar.

Q7. In a college, out of 4320 students, 2300 are girls. Find the ratio of the number of:

a) girls to the boys b) boys to total students

Q8: Mr. Kumar earns RS 8000 per month and his wife earns Rs 7000 per month. Find ratio of: a) his income to his wife's income b) wife's income to total income

Q9: Find the ratio of letter "A" in the word ALPHABET to the total letter in the word.

Q10. In a Maths test of 40 marks, Mansi scored 18 marks. Madhav scored 20 marks. Find the ratio of:

a) Mansi's marks to total marks b) Madhav's marks to Mansi's marks

Q11. Sita's age is 28 years, while Sohan's age is four years more than Sita. Find the ratio of Sita's age to Sohan's age.

Q12. Ratio of sides of square is 4:9. Find the ratio of their areas.

Proportion: a statement of equality of ratios. First and fourth terms are called extremes, whereas second and third terms are called means. If four numbers are in proportion, then the product of means is equal to product of extremes.

Q1. If a: 30:: 7:15, find the value of a.

Q2. Are the following numbers in proportion?

(a) 9, 12, 18, 24 (b) 3, 4, 8, 16 (c) 22, 33, 16, 24
(d) 63, 55, 32, 72 (e) 4, 9, 32, 72 (f) 15, 75, 45, 120

Q3. Are the following in continued proportion?

(a) 27, 36, 42 (b) 3, 9, 27 (c) 48, 36, 27 (d) 36, 90, 75

Q4. Determine if the following ratios are in proportion.

(a) 45 girls : 60 girls and 48 boys: 64 boys
(b) 5.2 l : 3.9 l and ml : 4 ml

Q5. If the interest on a sum of Rs. 1750 for a year is Rs 140, what is the rate per cent of interest per annum?

Q6. The interest on Rs 3000 for one year is Rs 210. What is the interest on Rs 45000 for a year? If one wants to get an interest of Rs 700, what should be the principal?

Q7. Are the ratios 25g: 30g and 40 kg : 48 kg are in proportion.

Q8. Are 30, 40, 45 and 60 in proportion?

Q9. Do the ratio 15 cm to 2 cm and 10 sec to 3 minutes form a proportion?

