

Ratio and Proportion – Chapter 12/CBSE Class 6 Maths

Extra Questions for Practice/Model Questions

Answer the following:

1. Find the ratio of 25cm to 1m.

Solution:

First convert the given numbers to same units.

$$1\text{m} = 100\text{cm}$$

$$\text{The required ratio is } 25\text{cm} : 100\text{cm} = \frac{25}{100} \div \frac{25}{25} = \frac{1}{4} = 1:4$$

2. Write two equivalent ratios of 2:3

Solution:

$$2:3 = \frac{2}{3} \times \frac{2}{2} = \frac{4}{6} = 4:6$$

$$2:3 = \frac{2}{3} \times \frac{3}{3} = \frac{6}{9} = 6:9$$

3. Divide 100 rupees in the ratio 2:3 between Manu and Sonu.

Solution:

Given ratio is 2:3

$$\text{Sum of the parts} = 2 + 3 = 5$$

$$\text{Manu's share} = \frac{2}{5} \times 100 = \frac{200}{5} = 40 \text{ rupees}$$

$$\text{Sonu's share} = \frac{3}{5} \times 100 = \frac{300}{5} = 60 \text{ rupees}$$

4. Find x in the proportion 6: x = 30: 45.

Solution:

$$\frac{6}{x} = \frac{30}{45}$$

$$\frac{6}{x} \times \frac{5}{5} = \frac{30}{45}$$

$$5x = 45$$

$$x = \frac{45}{5} = 9$$

5. Are the given ratios 40:200 and 15:75 in proportion or not?

Solution:

$$40:200 = \frac{40}{200} \div \frac{10}{10} = \frac{4}{20} \div \frac{4}{4} = \frac{1}{5} = 1:5$$

$$15:75 = \frac{15}{75} \div \frac{5}{5} = \frac{3}{15} \div \frac{3}{3} = \frac{1}{5} = 1:5$$

6. Cost of 5kg oranges is 425 rupees. Find the cost of 7kg of oranges?

Solution:

$$\text{Cost of 5kg oranges} = 425$$

$$\text{Cost of 1 kg oranges} = 425 \div 5 = 85 \text{ rupees}$$

$$\text{Cost of 7kg oranges} = 85 \times 7 = 595 \text{ rupees}$$

7. Find the ratio of 30 seconds to 1.5 minutes in the simplest form >

Solution:

$$1 \text{ minute} = 60 \text{ seconds}$$

$$1.5 \text{ minute} = 90 \text{ seconds}$$

$$\text{Required ratio is 30 seconds: 90 seconds} = 30:90 = \frac{30}{90} \div \frac{30}{30} = \frac{1}{3} = 1:3$$

8. Find the ratio of 25 paise to 5 rupees in the simplest form

Solution:

$$1 \text{ rupee} = 100 \text{ paise}$$

$$5 \text{ rupee} = 500 \text{ paise}$$

$$\text{Required ratio is 25: 500} = \frac{25}{500} \div \frac{25}{25} = \frac{1}{20} = 1:20$$

9. Out of 80 persons in an office, 36 are men and the remaining are women. Find the ratio of number of women to the total number of persons.

Solution:

Total number of persons = 80

Number of men = 36

Number of women = 44

Required ratio = 44: 80 = $\frac{44}{80} \div \frac{4}{4} = \frac{11}{20} = 11:20$

10.