

## EXERCISE – 10A

**Q-2. Represent the following as the ratio-**

a. 6 , 9

$$\begin{aligned}\text{Ratio of 6 to 9} &= 6 : 9 \\ &= 2 : 3\end{aligned}$$

b. 18 , 36

$$\begin{aligned}\text{Ratio} &= 18 : 36 \\ &= 1 : 2\end{aligned}$$

d.. 36 , 8

$$\begin{aligned}\text{Ratio} &= 36 : 8 \\ &= 9 : 2\end{aligned}$$

f.. 19 , 14

$$\text{Ratio} = 19 : 14$$

**Q-5. There are 35 girls and 45 boys in a class . Find the ratio of –**

a. No of girls to the no of boys

$$\text{No of girls} = 35$$

$$\text{No of boys} = 45$$

$$\begin{aligned}\text{Ratio} &= \text{Girls} : \text{Boys} \\ &= 35 : 45 \\ &= 7 : 9\end{aligned}$$

b. No of girls to total no of students

$$\text{Total students} = 35 + 45 = 80$$

$$\begin{aligned}\text{Ratio} &= \text{Girls} : \text{Total students} \\ &= 35 : 80 \\ &= 7 : 16\end{aligned}$$

**Q.6 Find the ratio of the following –**

a. 75 paise to Rs 5

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

$$\text{Ratio} = 75 : 500$$

$$= 3 : 20$$

b.. 7kg to 700grams

$$7\text{kg} = 7000 \text{ grams}$$

$$\text{Ratio} = 7000 : 700$$

$$= 10 : 1$$

c. 3 dozen to 2 scores

$$1 \text{ dozen} = 12$$

$$1 \text{ score} = 20$$

$$3 \text{ dozen} = 12 \times 3 = 36$$

$$2 \text{ scores} = 2 \times 20 = 40$$

$$\text{Ratio} = 3 \text{ dozen} : 2 \text{ scores}$$

$$= 36 : 40$$

$$= 9 : 10$$

**Q-7. Raj earns Rs 25000 per month and saves Rs 5000 per month . Find the ratio of –**

$$\text{Earnings} = \text{Rs } 250000 ,$$

$$\text{Savings} = \text{Rs } 5000$$

a. Earnings : Savings

$$25000 : 5000$$

$$5 : 1$$

b. Expenditure = Earnings – Savings

$$= 25000 - 5000 = 20000$$

$$= \text{Earnings} : \text{Expenditure}$$

$$25000 : 20000$$

$$5 : 4$$

**Q-9. Compare the following Ratios –**

a. 7 : 6 and 24 : 9

$$7:6 = \frac{7}{6} \text{ and } 24 : 9 = \frac{24}{9}$$

$$\frac{7}{6} = \frac{24}{9}$$

$$7 \times 9 = 63$$

$$6 \times 24 = 114$$

$$\Rightarrow 63 < 114$$

$$\Rightarrow \frac{7}{6} < \frac{24}{9}$$

b. 4 : 7 and 5 : 8

$$4 : 7 = \frac{4}{7} \quad \text{and} \quad 5 : 8 = \frac{5}{8}$$

$$\frac{4}{7} < \frac{5}{8}$$

$$4 \times 8 = 32$$

$$5 \times 7 = 35$$

$$\Rightarrow 35 > 32$$

$$\Rightarrow \frac{5}{8} > \frac{4}{7}$$

**Q-12. Out of 30 fruits 13 are mangoes and the remaining are oranges .  
What is the ratio of the oranges to the mangoes?**

Sol : total fruits = 30

Mangoes = 13 ,

then oranges = total – mangoes

$$30 - 13 = 17$$

Ratio = oranges : mangoes

$$17 : 13$$

**Q-13. Two no are in the ratio 8 : 7 . Their sum is 60 . Find the no .**

Sol : Let the no be 8x and 7x

$$8x + 7x = 60$$

$$15x = 60$$

$$x = 60/15 = 4$$

$$x = 4$$

So no are :  $8x = 8 \times 4 = 32$

$$7x = 7 \times 4 = 28$$

**Q-14. The sum of two angles is 90 degrees . The angles are in the ratio 2 : 3 . Find the measure of each angle .**

Sol : Let the angles be  $2x$  and  $3x$

A.T.Q.

$$2x + 3x = 90$$

$$5x = 90$$

$$x = 90 / 5 = 18$$

So angles are :  $2x = 2 \times 18 = 36^{\circ}$

$$3x = 3 \times 18 = 54^{\circ}$$

**Q-16. Divide Rs 1500 between Aania and Biju in the ratio 5 : 7 . How much will each of them get?**

Sol : Total Rupees = 1500

Let Aania and Biju,s part be  $5x$  and  $7x$

A.T.Q

$$5x + 7x = 1500$$

$$12x = 1500$$

$$x = 1500 / 12 = 125$$

so Aania's part =  $5x = 5 \times 125 = 625$

and Biju's part =  $7x = 7 \times 125 = 875$