

**RD SHARMA**

**Solutions**

**Class 6 Maths**

**Chapter 9**

**Ex 9.2**

(i) 3:4 (or) 9:16

writing the given ratios as fractions, we have

$$3:4 = \frac{3}{4} \text{ and } 9:16 = \frac{9}{16}$$

Now L.C.M of 4 and 16 is 16

Making the denominator of each fraction equal to 16, we have

$$\frac{3}{4} = \frac{3 \times 4}{4 \times 4} = \frac{12}{16} \text{ and } \frac{9}{16} = \frac{9}{16}$$

Clearly  $12 > 9$

$$\therefore \frac{12}{16} > \frac{9}{16} \Rightarrow \frac{3}{4} > \frac{9}{16}$$

(ii) 15:16 or 24:25

writing the given ratio as fractions, we have

$$15:16 = \frac{15}{16} \text{ and } 24:25 = \frac{24}{25}$$

L.C.M of 25 & 16 is 400  
Making the denominator of each fraction equal to 400, we have

$$\frac{15}{16} = \frac{15 \times 25}{16 \times 25} = \frac{375}{400} \text{ and } \frac{24}{25} = \frac{24 \times 16}{25 \times 16} = \frac{384}{400}$$

clearly  $384 > 375$

$$\therefore \frac{384}{400} > \frac{375}{400} \Rightarrow \frac{24}{25} > \frac{15}{16}$$

(iii) 4:7 or 5:8

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

Now, Lcm of 7 and 8 is 56.

$$\frac{4}{7} = \frac{4 \times 8}{7 \times 8} = \frac{32}{56} \text{ and } \frac{5}{8} = \frac{5 \times 7}{8 \times 7} = \frac{35}{56}$$

$\therefore$  clearly  $35 > 32$

$$\therefore \frac{35}{56} > \frac{32}{56} \Rightarrow \frac{5}{8} > \frac{4}{7}$$

(iv) 9:20 or 8:13

$$9:20 = \frac{9}{20} \text{ and } 8:13 = \frac{8}{13}$$

Now, Lcm of 20 and 13 is 260

$$\frac{9}{20} = \frac{9 \times 13}{20 \times 13} = \frac{117}{260} \text{ and } \frac{8}{13} = \frac{8 \times 20}{13 \times 20} = \frac{160}{260}$$

clearly  $160 > 117$ .  $160 > 117$

$$\therefore \frac{160}{260} > \frac{117}{260} \Rightarrow \frac{8}{13} > \frac{9}{20}$$

⑤ 1:2 or 13:27

$$1:2 = \frac{1}{2} \text{ and } 13:27 = \frac{13}{27}$$

Now, LCM of 2 and 27 is 54

$$\frac{27}{54} \text{ (or) } \frac{26}{54}$$

$$\therefore \frac{1}{2} > \frac{13}{27}$$

Solution-02:-

we have,

$$\frac{6}{8} = \frac{6 \div 2}{8 \div 2} = \frac{3}{4}$$

$\therefore 3:4$  is an equivalent ratio of  $6:8$

$$\text{Also, } \frac{6}{8} = \frac{6 \times 2}{8 \times 2} = \frac{12}{16}$$

So,  $12:16$  is an equivalent ratios of  $6:8$ .

Hence,  $3:4$  and  $12:16$  are equivalent ratios of  $6:8$ .

Solution-03:-

$$\frac{12}{20} = \frac{\square}{35} = \frac{9}{\square}$$

In order to find the first missing number, we consider the denominator 20 and 35

LCM of 20 and 35 is 140.

$$\text{we have, } 20 \div 5 = 4.$$

So, we divide the Nr & Dr of  $\frac{12}{20}$  by 4 to

$$\text{get } \frac{12}{20} = \frac{12 \div 4}{20 \div 4} = \frac{3}{5}$$

Hence, first missing number is 3. Consequently the second ratio is  $\frac{3}{5}$

To find the second missing number,

$$\text{we consider } \frac{7}{8} \neq \frac{9}{\square}$$

we have  $9 \div 3 = 3$ , so we multiply the Nr & Dr of

$\frac{3}{5}$  by 3 to get

$$\frac{3}{5} = \frac{3 \times 3}{5 \times 3} = \frac{9}{15}$$

Hence, the second missing number is 15.