

NCERT Solutions For Class 7 Maths Comparing Quantities Exercise 8.1

Q1. Find the ratio of:

- (a) Rs 5 to 50 paise (b) 15 kg to 210 g
- (c) 9 m to 27 cm (d) 30 days to 36 hours

## Ans:

(a) Rs 5 to 50 paise

1 rupee = 100 paise

5 rupee = 500 paise

$$\therefore \frac{\text{Rs 5}}{50 \text{ paise}} = \frac{500}{50} = \frac{10}{1}$$

Hence, the required ratio is 10:1.

(b) 15 kg to 210 g

$$\Rightarrow \frac{15 \text{ kg}}{210 \text{ g}} = \frac{15000}{210} = \frac{500}{7}$$

Hence, the required ratio is 500:7.

(c) 9 m to 27 cm

$$\Rightarrow \frac{9 \text{ cm}}{27 \text{ cm}} = \frac{900}{27} = \frac{100}{3}$$

Hence, the required ratio is 100:3.

**Q2.** In a computer lab, there are 3 computers for every 6 students. How many computers will be needed for 24 students?

## Ans:

For 6 students, number of computers required = 3

:. For 1 student, number of computers required  $=\frac{3}{6} = \frac{1}{2}$ 

∴ For 24 students, number of computers required =  $24 \times \frac{1}{2} = 12$ 

Hence, 12 computers are required for 24 students.

Q3. Population of Rajasthan = 570 lakhs and population of UP = 1660 lakhs.

Area of Rajasthan = 3 lakh km2 and area of UP = 2 lakh km2.

- (i) How many people are there per km2 in both these States?
- (ii) Which State is less populated?

## Ans:

(i) Population of Rajasthan in 3 km2 area = 570 lakh

Population of Rajasthan in 1 km<sub>2</sub> area =  $\frac{570}{3}$  = 190 lakh

Population of U.P in 2 km2 area = 1660 lakh

Population of U.P in 1 km<sub>2</sub> area =  $\frac{1660}{2}$  = 830 lakh

(ii) It can be observed that population per km2 area is lesser for Rajasthan. Therefore, Rajasthan is less populated.

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