



# MATHS

## BOOKS - SWAN PUBLICATION

### COMPARING QUANTITIES

#### Exercise 8 1

1. Find the ratio of:

Rs.5 to 50 paise



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2. Find the ratio of:

15 kg to 210 g



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3. Find the ratio of

4 m to 400 cm



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4. Find the ratio of:

30 days to 36 hours



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5. Are the ratios 1:2 and 2:3 equivalent?



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6. If the cost of 8 toys is Rs. 240, find the cost of 21 toys.



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7. The car that I own can go 150 km with 25 litres of petrol. How far can it go with 30 litres of petrol?



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





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## Exercise 8 2

1. Convert the following fractions into percents

$$\frac{1}{8}$$



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2. Convert the following fractions into percents

$$\frac{49}{50}$$



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**3.** Convert the following fractions into percents

$$\frac{5}{4}$$



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**4.** Convert the following fractions into percents

$$1\frac{3}{8}$$



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5. Convert the following percents into fractions in simplest form :

25 %



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6. Convert the following percents into fractions in simplest form :

150 %



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7. Convert the following percents into fractions in simplest form :

$$7\frac{1}{2} \%$$



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8. Anita secured 324 marks out of 400 marks.  
Find the percentage of marks secured by



Anita.



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**9.** Out of 32 students, 8 are absent from the class What is the percentage of students who are absent.



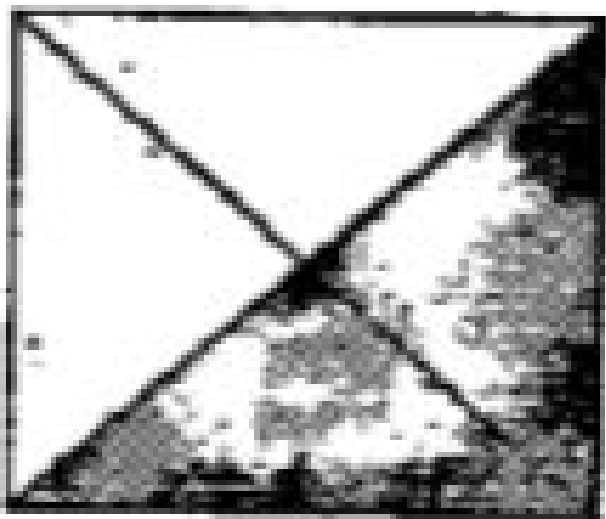
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**10.** There are 120 voters, 90 out of them voted.  
What percent did not vote ?



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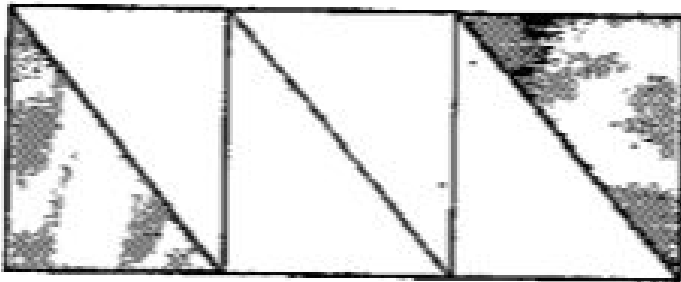
**11.** Estimate the part of figure which is shaded and hence find the percentage of the part which is shaded.





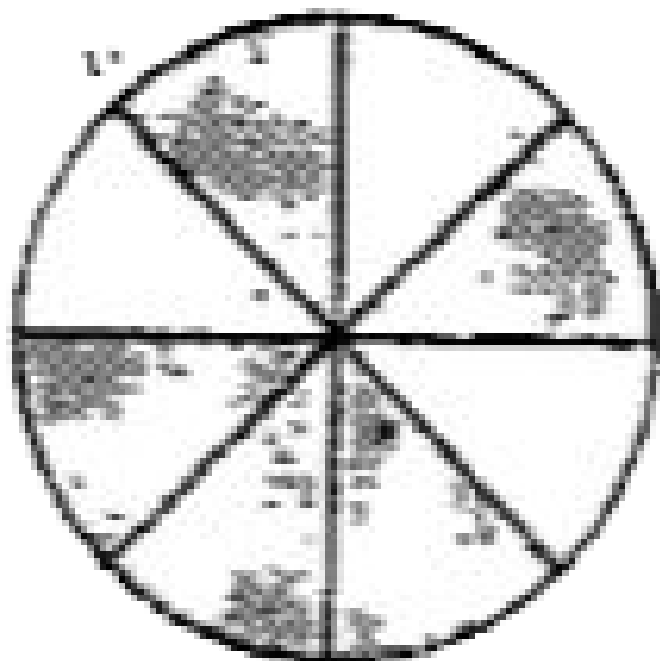
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12. Estimate the part of figure which is shaded and hence find the percentage of the part which is shaded.



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**13.** Estimate the part of figure which is shaded and hence find the percentage of the part which is shaded.



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**14.** Convert the following percentage into ratios in simplest form :

$$14\%$$



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**15.** Convert the following percentage into ratios in simplest form :

$$1\frac{3}{4}$$



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**16.** Convert the following percentage into ratios in simplest form :

$$33\frac{1}{3} \%$$



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**17.** Express the following ratios as percentages :

$$5:4$$



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**18.** Express the following ratios as percentages

:

1:1



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**19.** Express the following ratios as percentages

:

4:3



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**20.** Express the following ratios as percentages :

9:16



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**21.** Chalk contains calcium, carbon and sand in the ratios 12:3:10 Find the percentage of carbon in the chalk.



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**22.** Convert each part of the following ratios into percentage :

3:1



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**23.** Convert the following ratios to percentages

1:4



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**24.** Convert each part of the following ratios into percentage :

4:5:6



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**25.** Convert the following percentages to decimals :

28 %



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**26.** Convert the following percentages to decimals :

$$3\%$$



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**27.** Convert the following percentages to decimals :

$$37\frac{1}{2}\%$$



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**28.** Convert the following decimals to percentage :

0.65



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**29.** Convert the following decimals to percentage :

0.9



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**30.** Convert the following decimals to percentage :

2.1



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**31.** If 65 % of students in a class have a bicycle, then what percent of the students do not have a bicycle ?



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**32.** We have a basket full of apples, oranges and mangoes. If 50% are apples, 30% are oranges, then what per cent are mangoes?



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**33.** The population of a city decreased from 25,000 to 24,500. Find the percentage decrease.



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**34.** Arun bought a car for Rs.3,50,000. The next year, the price went upto Rs.3,70,000. What was the Percentage of price increase?



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**35.** Find:

15% of 250



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**36.** Find :

25 % of 120 litres



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**37.** Find :

4 % of 12.5



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**38. Find :**

12 % of Rs. 250



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## **Exercise 8 2 Choose The Correct Answer From The Give Four Options**

**1. The ratio 2: 3 expressed as percentage is**

A. 40 %

B. 60 %

C.  $66\frac{2}{3}\%$

D.  $33\frac{1}{3}\%$

**Answer: C**



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2. If  $30\%$  of  $x$  is 72, then  $x$  is equal to

A. 120

B. 240

C. 360

D. 480

**Answer: B**



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**3.** 0.025 when expressed as a percent is

A. 250 %

B. 25 %

C. 4 %

D. 2.5 %

**Answer: D**



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4. In a class, 45 % of students are girls. If there are 22 boys in the class, then the total number of students in the class is

A. 30

B. 36

C. 40

D. 44

**Answer: C**



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5. What percent of  $\frac{1}{7}$  is  $\frac{2}{35}$  ?

A. 20 %

B. 25 %

C. 30 %

D. 40 %

**Answer: D**



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## Exercise 8 3

1. Tell what is the profit or loss in the following transactions. Also find profit per cent or loss per cent in each case.

Gardening shears bought for Rs.250 and sold for Rs.325.



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**2.** Tell what is the profit or loss in the following transactions. Also find profit per cent or loss per cent in each case.

A refrigerator bought for Rs.12,000 and sold at Rs.13,500.



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**3.** Tell what is the profit or loss in the following transactions. Also find profit per cent or loss per cent in each case.

A cupboard bought for Rs.2,500 and sold at Rs.3,000.



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4. Tell what is the profit or loss in the following transactions. Also find profit per cent or loss per cent in each case.

A skirt bought for Rs.250 and sold at Rs.150.



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5. A shopkeeper buys an article for Rs. 735 and sold it for Rs. 850. find his profit or loss.



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6. Kirti bought a sarees for Rs. 2500 and sold it for Rs. 2300. Find her loss and loss percent.



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7. An article was sold for Rs.250 with a profit of 5%. What was its cost price?



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8. Amina buys a book for Rs.275 and sells it at a loss of 15%. How much does she sell it for?



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**9.** Juhi sells a washing machine for Rs.13,500. She loses 20% in the bargain. What was the price at which she bought it?



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**10.** Anita takes a loan of Rs.5,000 at 15% per year as rate of interest. Find the interest she has to pay at the end of one year.



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**11.** Find the amount to be paid at the end of 3 years in each case:

Principal = Rs.1,200 at 12% p.a.



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**12.** Find the amount to be paid at the end of 3 years in each case:

Principal = Rs.7,500 at 5% p.a.



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**13.** Find the time when simple interest on Rs. 2500 at 6 % is Rs. 450



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**14.** Find the rate of interest when simple interest on Rs. 1560 in 3 years is Rs. 585.



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**15.** If Meena gives an interest of Rs.45 for one year at 9% rate p.a. What is the sum she has

borrowed?



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**16.** If Rs. 14,000 is invested at 4 % per annum simple interest, how long will it take for the amount to reach Rs. 16240 ?



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**Exercise 8 3 Choose The Correct Answer From The Given Four Options**

1. If a man buys an article for Rs. 80 and sells it for Rs. 100, then gain percentage is

A. 20 %

B. 25 %

C. 40 %

D. 125 %

**Answer: B**



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2. If a man buys an article for Rs. 120 and sells it for Rs. 100, then his loss percentage is

A. 10 %

B. 20 %

C. 25 %

D.  $16\frac{2}{3}$  %

**Answer: D**



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3. The salary of a man is Rs. 24000 per month.

If he gets an increase of 25 % in the salary,  
then the new salary per month is

A. Rs. 2.500

B. Rs. 28,000

C. 30, 000

D. 36000

**Answer: C**



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4. On selling an article for Rs. 100, Renu gains Rs. 20. Her gain percentage is

A. 25 %

B. 20 %

C. 15 %

D. 40 %

**Answer: A**



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5. The simple interest on Rs. 6000 at 8 % p.a. for one year is

A. Rs. 600

B. Rs. 480

C. Rs. 400

D. Rs. 240

**Answer: B**



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6. If Rohini borrows Rs. 4800 at 5% p.a. simple interest, then the amount she has to return at the end of 2 years is

A. Rs. 480

B. Rs. 5040

C. Rs. 5280

D. Rs. 5600

**Answer: C**



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## Other Important Question | Multiple Choice Questions

1. The conversion of 0.05 in percentage is :

A. 50 %

B. 0.5 %

C. 500 %

D. 5 %

**Answer: D**



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2. 75 % of Rs. 12 is :

A. 6

B. 8

C. 9

D. 12

**Answer: C**



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3. The ratio of Rs. 10 to 10 paise is :

A. 1 : 1

B. 100 : 1

C. 1000 : 1

D. 10000 : 1

**Answer: B**



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4. 25 % of a quantity is 9. Then the quantity is

:

A. 72

B. 36

C. 18

D. 54

**Answer: B**



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5. Fraction  $\frac{5}{4}$  is percentage form is

A. 75 %

B. 25 %

C. 1.25 %

D. 125 %

**Answer: D**



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6. 75 % of 1 kg is :

A. 75 kg

B.  $7 \cdot 5$  kg

C. 0.750 kg

D. 0.075 kg

**Answer: C**



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7. A shop has 500 motor parts out of which 5 are defective. What percentage of parts are defective ?

A. 5 %

B. 95 %

C. 1 %

D. 15 %

**Answer: C**



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**8.** Rs. 420 is divided between Ram and Sham in the ratio 3: 4 Then Sham will get amount :

A. Rs. 270

B. Rs. 180

C. Rs. 240

D. Rs. 120

**Answer: C**



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9. The marks obtained in an examination increased from 20 to 30 then percentage increase in marks is :

A. 10 %

B. 30 %

C. 50 %

D. 60 %

**Answer: C**



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**10. Loss depends upon :**

A. Cost price and sale price

B. Cost price

C. Sale price

D. None of these

**Answer: B**



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**11. Which of the formula mentioned below is not true ?**

A. Profit = Sale price - Cost price

B. Loss = Cost price - Sale price

$$\text{C. Profit \%} = \frac{\text{Profit}}{\text{Sale price}} \times 100$$

$$\text{D. Loss \%} = \frac{\text{Loss}}{\text{cost price}} \times 100$$

**Answer: C**



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**12.** The population of a city decreased from 25,000 to 24,500. Find the percentage decrease.

A. 5 %

B. 10 %

C. 1 %

D. 2 %

**Answer: D**



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**Other Important Question li Fill In The Blanks**



1. The ratio of Rs. 5 and 20P is .....



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2. Percent means .....



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3. 30 % in fraction is .....



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4. 25 % of 24 is .....



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5. . . . .

$$= \left( \frac{\text{One quantity}}{\text{Other quantity}} \times 100 \right) \%$$



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6. .... = Selling price - Cost price



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7. Amount = ..... + Interest



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8. A ..... is the equivalence of two ratios .



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9. In a proportion, the product of middle term is equal to product of .....



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10.  $R = \dots\dots\dots$



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**Other Important Question** **iii State Whether The Following Statements Are True Or False**

1. Two ratios can be compared by converting them into like fraction.



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2. If two ratios are equivalent then the four quantities are said to be in proportion.



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3. The price at which an article is bought by a dealer is called selling price .



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**4. Profit = Cost price - Selling price**



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**5. Loss percent =  $\left( \frac{\text{Loss}}{\text{Selling price}} \times 100 \right) \%$**



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**6.  $P = \frac{S.I \times 100}{R \times T}$**



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**7. Percent means out of hundred**



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**8. To convert a decimal into percent, we  
multiple the decimal by 100 and put sign %**



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