



MATHS

BOOKS - SWAN PUBLICATION

RATIO AND PROPORTION

Exercise 111

1. Express the following ratios in the simplest

form :

12:32



2. Express the following ratios in the simplest

form :

45:25



3. Express the following ratios in the simplest

form :

91:104





4. Express the following ratios in the simplest

form :

60:72

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5. Express the following ratios in the simplest

form :

375:125

6. Write the ratio in the simplest form :

Rs. 30 To Rs. 55

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7. Write the ratio in the simplest form :

18 m to 63 m

8. Write the ratio in the simplest form :

40 paise to Rs. 2

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9. Write the ratio in the simplest form :

One hour to 36 minutes

10. Write the ratio in the simplest form :

5 kg to 1200 g

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11. Simplify the following ratios :

2 years : 14 months

12. Simplify the following ratios :

28 min : 2 hours

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13. Simplify the following ratios :

125 ml : 2l

14. Simplify the following ratios :

4 m 20 cm : 80 cm

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15. Simplify the following ratios :

3 dozen : 12 pieces

16. Find two equivalent ratios for each given

ratio :

4:1



17. Find two equivalent ratios for each given

ratio :

3:5

18. Find two equivalent ratios for each given

ratio :

5:12

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19. The number of boys and girls in a class are and 52 respectively. Find the ratio of number of boys to the number of girls.

20. Pankaj has 23 pens and 42 pencils. Find the

ratio of pens to pencils.



21. In a year, Harjot earns Rs. 2,80,000 and

saves Rs. 60,000. Find the ratio of money:

He saves to the money he spends.



22. In a year, Harjot earns Rs. 2,80,000 and

saves Rs. 60,000. Find the ratio of money:

He earns to the money he saves.



23. In a year, Harjot earns Rs. 2,80,000 and

saves Rs. 60,000. Find the ratio of money:

He spends to the money he earns.



24. In a school, there are 175 boys, 205 girl students and 20 teachers. Find the ratio of the number of

boys to the number of teachers.



25. In a school, there are 175 boys, 205 girl

students and 20 teachers. Find the ratio of the

number of

girls to the number of boys.



26. In a school, there are 175 boys, 205 girl students and 20 teachers. Find the ratio of the number of

Teachers to the number of total persons in the

school.



27. Out of 144 students in a school, 48 play cricket, 28 play kabaddi, 40 play volleyball and

the remaining play kho-kho. Find the ratio of: Number of students play kabaddi to the number of students play kho-kho.

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28. Out of 144 students in a school, 48 play cricket, 28 play kabaddi, 40 play volleyball and the remaining play kho-kho. Find the ratio of: Number of students play cricket to the number of students volleyball.



29. Out of 144 students in a school, 48 play cricket, 28 play kabaddi, 40 play volleyball and the remaining play kho-kho. Find the ratio of: Number of students who play kho-kho to the total students of school.



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30. The present age of Kush and Shelly are 22

years and 16 years respectively. Find the ratio

of

Their present ages.



31. The present age of Kush and Shelly are 22

years and 16 years respectively. Find the ratio

of

Kush age to Shelly's age after 4 years.

32. The present age of Kush and Shelly are 22 years and 16 years respectively. Find the ratio of

Shelly's age to Kush's age before 5 years.

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33. The present age of Kush and Shelly are 22 years and 16 years respectively. Find the ratio of

Kush's present age to Shelly's age after 6

years.



34. In a pencil box there are 150 pencils. Out of

which 40 are red, 60 are black and the rest are

blue pencils. Find the ratio of:

Red pencils to the black pencils.

35. In a pencil box there are 150 pencils. Out of

which 40 are red, 60 are black and the rest are

blue pencils. Find the ratio of:

Blue pencils to the total number of pencils.



36. In a pencil box there are 150 pencils. Out of

which 40 are red, 60 are black and the rest are

blue pencils. Find the ratio of:

Total pencils to the red pencils.





37. Divide Rs. 75 in ratio 4:3 between Preet

and Sukhi.



38. Two numbers are in the ratio 3:7 and their

sum is 140. Find the numbers.

39. The angles of a triangle are in the ratio

1:2:3. Find the measure of each angle.



40. A pipe of length 4 m 16 cm is cut into two

pieces in ratio 3:5. Find the length of each

piece of the pipe.





1. Determine if the following are in proportion.

20, 40, 25, 50

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2. Determine if the following are in proportion.

35, 49, 55, 78 ·

3. Determine if the following are in proportion.

24, 30, 36, 45

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4. Determine if the following are in proportion.

 $10,\,22,\,45,\,99$

5. Determine if the following are in proportion.

32, 48, 70, 210

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6. Do the following ratios forms a proportion :

5:9an20:36



7. Do the following ratios forms a proportion :

24:36 and 32:48

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8. Do the following ratios forms a proportion :

32:40 and 36:42



9. Do the following ratios forms a proportion :

27:18 and 3:2

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10. Do the following ratios forms a proportion

35:28 and 77:44

:

11. State true or false of the following :-

4:3:36:37

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12. State true or false of the following :-

16:4::20:5

13. State true or false of the following :-

19:43::8:21

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14. Determine if the following ratios form a proportion.

40 cm : 1 m and Rs. 12 : Rs. 30

15. Determine if the following ratios form a

proportion.

25 minute : 1 hour and 40 km : 96 km.



16. Determine if the following ratios form a proportion.

Rs. 4 : 35 paise and 8 kg : 9 kg

17. Find the value of 'x' in each case:

25: x: :15: 6



18. Find the value of 'x' in each case:

28:49::10:x

19. Find the value of 'x' in each case:

8:20::10:x

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20. Check if the following terms are in continued proportion :

1, 4, 16

21. Check if the following terms are in continued proportion :3, 9, 27



22. Check if the following terms are in continued proportion :

5, 10, 20

1. The cost of 1 kg apples is Rs. 45. What is the

cost of 7 kg apples ?

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2. A car travels 224 km in 7 litres of petrol. How

much distance will it cover in 1 litre ?

3. A pipe can fill 10 water tanks in 12 hours. How much time will it take to fill 15 such water tanks ?

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4. The cost of 18 m cloth is Rs. 810. What is the

cost of 25 m cloth?

5. The weight of 24 books is 6 kg. What is the

weight of 36 such books ?

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6. A' runs 28 km in 5 hours. How many

kilometres does it run in 9 hours ?

7. A 12 m high pole casts a shadow of 30 m.
Find the height of the pole that casts a shadow of 45 m.



8. A man earns Rs. 11200 in 7 months.

How much will be earn in 18 months ?



9. A man earns Rs. 11200 in 7 months.

In how many months will he earn Rs. 40,000?

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10. If the cost of a dozen soaps is Rs. 153.60.

What will be the cost of 16 such soaps ?

11. Cost of 105 envelops is Rs.35. How many

envelops can he purchased for Rs. 9?



12. A horse travels 90 km in $2\frac{1}{2}$ hours.

How much time is required to cover 54 km

with the same speed ?

13. A car travels 90 km in $2\frac{1}{2}$ hour.

Find the distance covered in 2 hours with the

same speed.



14. Anshul made 57 runs in 6 overs. In how many overs he made 95 runs with same strike

rate?



15. Cost of 5 kg rice is Rs. 32.50.

What will be the cost of 14 kg such rice ?

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16. Cost of 5 kg rice is Rs. 32.50.

What quantity of rice can be purchased in Rs.

162.50?

17. If a cow grazes 21 sq. m of a field in 6 days.

How much area will it graze in 27 days?

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Multiple Choice Questions

1. The ratio of 24 seconds to 1 minute is :

A. 2:5

B. 24:1

C.5:2

D. 1:24

Answer: A



2. The ratio of 2 m to 75 cm is:

A. 2:75

B. 75:2

C. 8:3

D. 3:8

Answer: C

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3. The ratio of 1 year to 8 months is :

A. 2:3

B. 3:2

C. 1:8

D. 8:1

Answer: B



4. Divide Rs. 40 in 2:3.

A. Rs. 20, Rs. 30

B. Rs. 24, Rs. 16

C. Rs. 30, Rs. 20

D. Rs. 16, Rs. 24

Answer: D



- 5. Which of the following is equivalent ratio of
- 4:7?
 - A. 28:42
 - B. 28:49
 - C. 20: 49
 - D. 20:42

Answer: B





6. Find a, if 8, a, 40, 65 are in proportion.

A. 26

B. 12

C. 13

D. 9

Answer: C



7. Find x if 12, 25, x, 75 are in proportion.

A. 36

B.40

C. 30

D. 38

Answer: A



8. The cost of 12 pens is Rs. 108. Find the cost

of 18 such pens.

A. Rs. 152

B. Rs. 216

C. Rs. 162

D. Rs. 144

Answer: C

9. Aslam earns Rs. 1680 in a week. In how many

days, he will earn Rs. 2400?

A. 10

B. 8

C. 12

D. 9

Answer: A



10. A but travels 90 km in $2\frac{1}{2}$ hours. How much

distance it cover in 5 hours ?

A. 100 km

B. 180 km

C. 150 km

D. 120 km

Answer: B