

Ratio and Proportion

Question 1.

If the cost of 1 dozen apples is Rs. 36 then the cost of 36 apples is :

- (a) Rs. 102
- (b) Rs. 104
- (c) Rs. 108
- (d) Rs. 110

Answer: (c) Rs. 108

Question 2.

The mean proportion of 4 and 16 is

- (a) 5
- (b) 4
- (c) 8
- (d) 6

Answer: (c) 8

Question 3.

In a class, there are 20 boys and 40 girls. What is the ratio of the number of boys to the number of girls?

- (a) it is 2:1
- (b) it is 1:3
- (c) it is 3:1
- (d) it is 1:2

Answer: (d) it is 1:2

Question 4.

Ratio of 200 ml to 4 l is :

- (a) 1 : 25

- (b) 1 : 20
- (c) 20 : 1
- (d) None of these

Answer: (b) 1 : 20

Question 5.

There are 45 persons working in an office. If the number of females is 25 and the remaining are males, find the ratio of the number of females to number of males.

- (a) it is 1:5
- (b) it is 1:4
- (c) it is 4:5
- (d) it is 5:4

Answer: (d) it is 5:4

Question 6.

7 : 12 is equivalent to :

- (a) 28 : 40
- (b) 42 : 71
- (c) 72 : 42
- (d) 42 : 72

Answer: (d) 42 : 72

Question 7.

The length and width of a tape are 2 m and 28 cm. What is their ratio?

- (a) 100:14
- (b) 7:50
- (c) 50:7
- (d) 1:8

Answer: (c) 50:7

Question 8.

Ratio of 1.6 kg to 200 gm is :

- (a) 7 : 1
- (b) 9 : 1
- (c) 8:1
- (d) None of these

Answer: (c) 8:1

Question 9.

What is the simplest form of the ratio 144:28?

- (a) 28:4
- (b) 36: 7
- (c) 7:36
- (d) 1:2

Answer: (b) 36: 7

Question 10.

Ratio of 50 g to 4 kg is :

- (a) 1 : 40
- (b) 1 : 80
- (c) 80 : 1
- (d) 40 : 1

Answer: (b) 1 : 80

Question 11.

It 3, 18, x, 42 are in proportion then the value of x is :

- (a) 6
- (b) 1
- (c) 8
- (d) 9

Answer: (b) 1

Question 12.

Ratio of 1.2 m to 20 cm is :

- (a) 7:1
- (b) 7:2
- (c) 6:1
- (d) None of these

Answer: (c) 6:1

Question 13.

Fill in the box so that the three numbers, 32 and 64 are in proportion.

- (a) 36
- (b) 18
- (c) 16
- (d) 15

Answer: (c) 16

Question 14.

Find the mean proportion of $25:10::10:4$.

- (a) 25
- (b) 10
- (c) 4
- (d) 100

Answer: (a) 25

Question 15.

Cost of 11 mangoes is Rs. 55 then the cost of 5 mangoes is :

- (a) Rs. 20
- (b) Rs. 25
- (c) Rs. 30
- (d) Rs. 35

Answer: (b) Rs. 25

Question 16.

If 12, 14, 9 and x are in proportion then find the value of x.

- (a) 21
- (b) 9
- (c) 10.5
- (d) 105

Answer: (c) 10.5

Question 17.

12, 21, 72, 126 are in proportion then :

- (a) $12 \times 21 = 72 \times 126$
- (b) $12 \times 72 = 21 \times 126$

- (c) $12 \times 126 = 21 \times 72$
(d) None of these

Answer: (c) $12 \times 126 = 21 \times 72$

Question 18.

The first, second and the third terms of a proportion are 5, 120 and 40. What is the fourth term?

- (a) 89
(b) 480
(c) 960
(d) 98

Answer: (c) 960

Question 19.

Ratio of 1 hour to 300 seconds is :

- (a) 1 : 12
(b) 12 : 1
(c) 1 : 5
(d) 5 : 1

Answer: (b) 12 : 1

Question 20.

Length of a room is 30 m and its breadth is 20 m. Find the ratio of length of the room to the breadth of the room.

- (a) it is 2:3
(b) it is 3:2
(c) it is 1:3
(d) it is 1:2

Answer: (b) it is 3:2

Question 21.

In a cricket coaching camp, 1200 children are trained out of which 900 are selected for various matches. What is the ratio of non-selected children to the total number of children?

- (a) 300:120
(b) 4:1
(c) 1:4
(d) 120:300

Answer: (c) 1:4

Question 22.

The ratio 35 : 84 in the simplest form is :

- (a) 5:7
- (b) 7 : 12
- (c) 5 : 12
- (d) None of these

Answer: (c) 5 : 12

Question 23.

If the cost of 6 cans of juice is Rs 210, then what will be the cost of 4 cans of juice?

- (a) Rs 140
- (b) Rs 280
- (c) Rs 70
- (d) None of these

Answer: (a) Rs 140

Question 24.

In 4:7::16:28, 7 and 16 are called :

- (a) Extreme terms
- (b) Middle terms
- (c) Middle & extreme terms
- (d) None of these

Answer: (b) Middle terms

Question 25.

If $x : y :: y : z$, identify the correct statement from among the following.

- (a) $xy = yz$
- (b) $y^2 = xz$
- (c) $xyz = x$
- (d) $zy = x$

Answer: (b) $y^2 = xz$

Question 26.

In a class there are 25 boys and 35 girls. The ratio of boys to girls is :

- (a) 5:7
- (b) 7:5
- (c) 6:7
- (d) None of these

Answer: (a) 5:7

Question 27.

If 8, 18, 18 are x in proportion then find the value of x.

- (a) 40.5
- (b) 18
- (c) 405
- (d) 81

Answer: (a) 40.5

Question 28.

6 : 4 is equivalent ratio of _____.

- (a) it is 3:2
- (b) it is 2:3
- (c) it is 1:2
- (d) None of these

Answer: (a) it is 3:2

Question 29.

Find the ratio of 81 to 108.

- (a) it is 1:4
- (b) it is 4:3
- (c) it is 3:4
- (d) None of these

Answer: (c) it is 3:4

Question 30.

If a pack of 10 pens costs Rs. 25 then the cost of 36 pens is :

- (a) Rs. 80
- (b) Rs. 70

- (c) Rs. 90
- (d) Rs. 100

Answer: (c) Rs. 90

Question 31.

If 49, 35, x and 25 are in proportion then find the value of x.

- (a) 25
- (b) 15
- (c) 12
- (d) 35

Answer: (d) 35

Question 32.

Ratio of one hour to 60 minutes is :

- (a) 2:1
- (b) 1:2
- (c) 1 : 1
- (d) 2:3

Answer: (c) 1 : 1

Question 33.

Which of the following is a proportion?

- (a) 3,27,9,9
- (b) 5,11,15,44
- (c) 3,5,15,25
- (d) 4,3,36,18

Answer: (c) 3,5,15,25

Question 34.

Ratio of 32 to 60 is :

- (a) 3 : 4
- (b) 4:7
- (c) 8 : 15
- (d) 15 : 8

Answer: (c) 8 : 15

Question 35.

If 4, 5, 8, x are in proportion then the value of x is :

- (a) 4
- (b) 5
- (c) 10
- (d) 7

Answer: (c) 10

Question 36.

The mean proportion of 9 and 16 is

- (a) 16
- (b) 9
- (c) 12
- (d) None of these

Answer: (c) 12

Question 37.

Ratio of 5 minutes to 40 seconds is :

- (a) 15 : 1
- (b) 2 : 15
- (c) 15 : 2
- (d) 1 : 15

Answer: (c) 15 : 2

Question 38.

If 5, 30, 3 and x are in proportion then find the value of x.

- (a) 24
- (b) 6
- (c) 18
- (d) 15

Answer: (c) 18

Question 39.

What is the value of x if 6, 12, x are in proportion?

- (a) 22

- (b) 23
- (c) 24
- (d) 26

Answer: (c) 24

Question 40.

Identify the ratio of 4 seconds and $\frac{1}{4}$ minute from the following.

- (a) 4:15
- (b) 1:4
- (c) 15:4
- (d) 1:16

Answer: (a) 4:15

Question 41.

What are the extremes of the proportion 9:3::36:12?

- (a) 9, 3
- (b) 36, 12
- (c) 3, 36
- (d) 9, 12

Answer: (d) 9, 12

Question 42.

Divide 20 pens between Sheela and Sangeeta in the ratio of 3:2.

- (a) Sheela = 15 pens, Sangita = 5 pens
- (b) Sheela = 8 pens, Sangita = 12 pens
- (c) Sheela = 12 pens, Sangita = 8 pens
- (d) None of these

Answer: (c) Sheela = 12 pens, Sangita = 8 pens

Question 43.

If x, 24, 30 and 16 are in proportion then find the value of x.

- (a) 30
- (b) 45
- (c) 15
- (d) None of these

Answer: (b) 45

Question 44.

If $5 : 4 :: 35 : x$ then value of x is :

- (a) 26
- (b) 28
- (c) 30
- (d) 32

Answer: (b) 28

Fill in the blanks.

1. $15 : \dots\dots\dots = 150 : 250$.

Answer: 25

2. $\text{Rs. } 17.75 : \text{Rs. } 20 : 15 = \dots\dots\dots$

Answer: $355 : 403$

3. If the cost of 5 pens is Rs. 15 then the cost of 3 pens is

Answer: Rs. 9

4. $2:8 = \dots\dots\dots : 28$.

Answer: 7

5. $4 : \dots\dots\dots = 8 : 10$.

Answer: 5

6. Ratio of 30 sec to 12 min is

Answer: $1 : 24$

7. Are 1, 2, 3, 4 in proportion?

Answer: No

8. : 60 = 12 : 15.

Answer: 48

9. What is the unit of a ratio?

Answer: nothing

10. 75 paise to Rs. 3 is

Answer: 1 : 4

11. Can we find the ratio of 35 cm to 10 kg

Answer: No

12. 6 weeks : 2 days =

Answer: 21 : 1

13. If 2, 3, x, 6 are in proportion then the value of x is

Answer: 4

14. 20 : 35 = 12 :

Answer: 21

15. Are 2 : 3 and 4 : 6 equal?

Answer: Yes

16. 5 m 25 cm : 75 cm =

Answer: 7 : 1

17. $\frac{5}{6} = \frac{20}{\dots\dots\dots}$

Answer: 24

18. 6 kg : 3 kg 500 g =

Answer: 10 : 7

19. 3 : 5 = 18 :

Answer: 30

20. Value of x if 4 : 8 :: x : 16 is

Answer: 8

Match the following

1.

(a) 45 : 60	(i) 12 : 1
(b) 32 : 64	(ii) 3 : 5
(c) 2 hours : 80 minutes	(iii) 1 : 5
(d) 6kg : 500 gm	(iv) 6 : 12
(e) 1 week : 35 days	(v) 3 : 4
(f) 12 : 20	(vi) 12 : 40
(g) 9 : 17	(vii) 10 : 18
(h) 3 : 10	(viii) 3 : 2
(i) 5 : 9	(ix) 18 : 34

Answer:

(a) 45 : 60	(v) 3 : 4
(b) 32 : 64	(iv) 6 : 12
(c) 2 hours : 80 minutes	(viii) 3 : 2
(d) 6kg : 500 gm	(i) 12 : 1
(e) 1 week : 35 days	(iii) 1 : 5
(f) 12 : 20	(ii) 3 : 5
(g) 9 : 17	(ix) 18 : 34
(h) 3 : 10	(vi) 12 : 40
(i) 5 : 9	(vii) 10 : 18