



INDIAN SCHOOL AL WADI AL KABIR

Class VI, Mathematics

Worksheet- RATIO PROPORTION AND UNITARY METHOD

OBJECTIVE TYPE (1 Mark)

Q.1.	The ratio of ₹ 8 to 80 paise is							
A	1:10	B	10:1	C	1:1	D	100:1	
Q.2.	The ratio of radius to diameter of a circle is							
A	1:2	B	2:1	C	1:3	D	3:1	
Q.3.	The length and breadth of a rectangular park are 50 m and 40 m respectively. Find the ratio of the length to the breadth of the park.							
A	4:5	B	4:1	C	5:1	D	5:4	
Q.4.	Which of the following ratios is equivalent to 2:3?							
A	4:8	B	4:9	C	6:9	D	6:12	
Q.5.	Which of the following are in proportion?							
A	2,3,20,30	B	3,4,15,18	C	1,3,11,22	D	2,5,40,80.	
Q.6.	If a bus travels 160 km in 4 hours and a train travels 320km in 5 hours at uniform speeds, then the ratio of the distances travelled by them in one hour is							
A	1:2	B	4:5	C	5:8	D	8:5	
Q.7.	There are 'b' boys and 'g' girls in a class. The ratio of the number of boys to the total number of students in the class is:							
A	$\frac{b}{b+g}$	B	$\frac{g}{b+g}$	C	$\frac{b}{g}$	D	$\frac{b+g}{b}$	
Q.8.	Neelam's annual income is ₹ 2,88,000. Her annual savings amount to Rs. 36000. The ratio of her savings to her expenditure is							
A	1:8	B	1:7	C	1:6	D	1:5	
Q.9.	The ratio of the number of sides of a square to the number of edges of a cube is							
A	1:2	B	3:2	C	4:1	D	1:3	
Q.10	If the cost of 24 oranges is ₹72, find the cost of 120 oranges.							
A	₹180	B	₹360	C	₹172	D	₹500	

11. CASE STUDY:

The Tree Festival, popularly known as 'Van Mahotsav' is a week-long festival celebrated from **July 1-7** during which millions of trees are planted all over India.



Raman, Nalini, Gurpreet and Bhavjot planted trees in their school during the Vanamahotsav celebration. Raman planted 20 trees, Nalini planted 24 trees Gurpreet planted 34 trees and Bhavjot planted 22 trees.

i) What is the ratio of trees planted by Raman to those planted by Nalini (in simplest form)?

A	4:5	B	1:5	C	5:6	D	1:6
----------	-----	----------	-----	----------	-----	----------	-----

ii) What is the ratio of trees planted by Raman to those planted by Bhavjot (in simplest form)?

A	10:17	B	10:11	C	5:22	D	20:1
----------	-------	----------	-------	----------	------	----------	------

iii) What is the ratio of trees planted by Nalini to those planted by Gurpreet (in simplest form)?

A	14:17	B	12:7	C	2:17	D	12:17
----------	-------	----------	------	----------	------	----------	-------

iv) What is the ratio of trees planted by Nalini to total number of trees planted (in simplest form)?

A	6:25	B	25:6	C	6:5	D	4:5
----------	------	----------	------	----------	-----	----------	-----

v) What is the ratio of trees planted by Gurpreet to those planted by Bhavjot (in simplest form)?

A	11:17	B	1:7	C	7:1	D	17:11
----------	-------	----------	-----	----------	-----	----------	-------

Fill in the blanks(1mark)

Q12. If $a:b = c:d$, then b and c are called _____.

Q13. If two ratios are equal, then they are in _____.

Q14. The length and breadth of a rectangle are in the ratio 3:1. If the breadth is 7 cm, then the length of the rectangle is _____

Q15. The weight of 20 books is 80 kg, then the weight of one book is _____.

Q16. The value of x in the given proportion $x : 3 :: 38 : 19$ is _____

SECTION B (2 marks)

Q17.	A line segment 56cm long is to be divided into two parts in the ratio of 2: 5. Find the length of each part.
Q18.	State whether the given statements are true or false: (a) 12: 18 = 28: 56 (b) 25 persons: 130 persons = 15kg: 78kg
Q19.	Ramesh earns Rs 28000 per month. His wife Rama earns Rs 36000 per month. Find the ratio of (a) Ramesh's earnings to their total earnings (b) Rama's earnings to their total earnings.
Q20.	Determine if 39 litres: 195 litres and 7 bottles: 35 bottles are in proportion. Also, write the middle terms and the extreme terms if the ratios form a proportion.
Q21.	Cost of a dozen bananas is ₹ 180 and cost of 8 lemons is ₹ 56. Find the ratio of the cost of a banana to the cost of a lemon.
SECTION C (4marks)	
Q22.	Mihir earns ₹ 24000 in 8 months. (a) How much does he earn in one year? (b) How much will he earn in 5 months?
Q23.	A decorator will mix paint in a certain ratio to produce a specific colour. Purple paint is made by mixing red and blue paint. Pink paint is made by mixing white and red paint. A decorator used 35 parts of red paint with 70 parts of blue paint to make the desired purple colour paint. He also used 45 parts of red paint with 100 parts of white paint to make the desired pink colour. a) Find the ratio of red paint to blue paint used to make the desired purple colour. b) Find the ratio of red paint to white paint used to make the desired pink colour. c) Will the decorator get the same desired purple colour if he used 24 parts of red paint with 48 parts of blue paint?
Q24.	A scooter travels 260 km in 5 litres of petrol. a) How much distance will it cover in 3.5 litres of petrol? b) How much distance will it cover in 13 litres of petrol?
Q25.	In a school, the number of students of class VI who like Mathematics are 288, number of students who like computer science are 252, 144 like science and 72 like English. Find the ratio of (a) The number of students who like Mathematics to the number students who like English. (b) The number of students who like Computer science to the number of students who like Mathematics. (c) The number of students who like English to the number of students who like science.
Q26.	Out of 45 students in a class, 16 want to go for picnic to Qutub Minar, 20 wanted to go for movie and remaining wanted to go to rail museum. Find the ratio of: i) Number of students liking movie to number of students liking rail museum. ii) Number of students wanted to go to Qutub Minar to number of students wanted to go to rail museum. iii) Number of students wanted to go to Qutub Minar to number of students wanted to go for movie.

Answers

ANSWERS	1	b	2	a	3.	d	4	c
	5	a	6	c	7	a	8	b
	9	d	10	b	11	i)C, ii) B, iii) D, iv) A	12	Middle terms
	13	proportion	14	21 cm	15	4 kg	16	6
	17	16 cm, 40 cm	18	a) False b) True	19	a) 7:16 b) 9:16	20	Yes, Middle terms: 195 litres, 7 bottles Extreme terms: 39 litres, 35 bottles
21	15:7	22	a) ₹36,000 b) ₹15,000	23	a) 1:2 b) 9:20 c) yes	24	a) 182 km b) 676 km	
25	a) 4:1 b) 7:8 c) 1:2	26.	i) 20:9 ii) 16:9 iii)4:5					
