

## **OLYMPIAD 2023 - 24**

## **MATHS**

Total Questions: 50

Total Marks: 50

Time: 1hr

Set: A

Question: 1 of 50	QID: 19466		Marks:1
The teacher tells the class that the highest mains 87. What is the lowest score?	rks obtained by a student in he	er class are twice the lowest ma	arks plus 7. The highest score
○ A. 20	○ В.	30	
<b>C.</b> 40	O.	50	
Question: 2 of 50	QID: 19497		Marks: 1
The median value of the given data is 98,75,90	0,181,171,101,94,100, 710, 50	00, 7,16	
<b>A</b> 97	○ B.	98	
<b>○ C.</b> 99	<b>D</b> .	100	
Question: 3 of 50	QID: 19505		Marks: 1
The circumference of a circle is 22 m. What is	its area?		
<b>A</b> 40.5 sq m	О В.	38.5 sq m	
○ <b>C</b> . 38 sq m	O.	42 sq m	
Question: 4 of 50	QID: 19471		Marks:1
The mean of 10 observations is 5.5. When one 6.0. What is the value of new observation that v		n the data set, the mean of the	observations becomes
<b>A</b> 9	○ В.	10	
○ <b>C.</b> 11	○ <b>D</b> .	12	

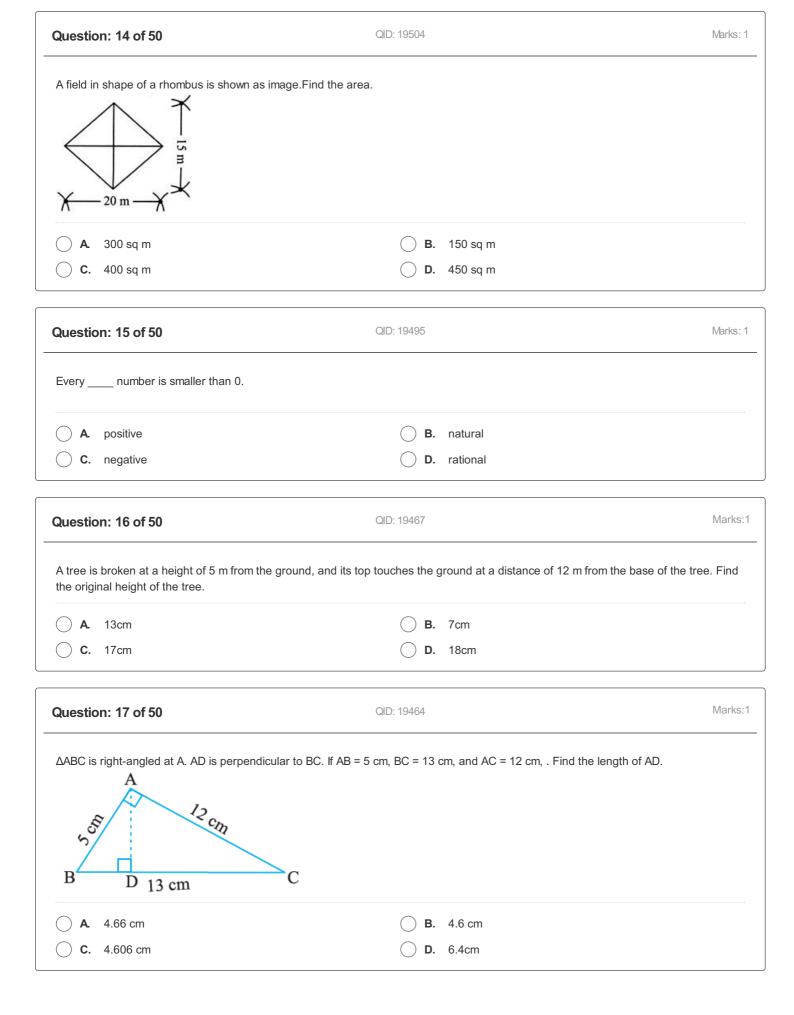
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Question: 5 of 50	QID: 19468	Marks:1
Solve: -6/13 – (-7/15)		
<b>A</b> (1/195)	О В.	(2/195)
<b>C.</b> (1/190)	O D.	(11/195)
Question: 6 of 50	QID: 19501	Marks: 1
Which of the following is incorrect about mode?		
A It is the average of the two middle terms.	О В.	It occurs most frequently
C. It is a central tendency	O D.	It may between the maximum and minimum observations
Question: 7 of 50	QID: 19493	Marks: 1
In a class test containing 10 questions, 5 marks are awarded for answer and 0 for questions not attempted. Mohan gets four corresponding to the containing t		
○ A -8	О В.	8
○ <b>c</b> . 80	<b>D.</b>	50
Question: 8 of 50	QID: 19491	Marks: 1
Riley ate (3/5) part of an apple and the remaining apple was eathe larger share? By how much?	aten by her br	other Sam. What part of the apple did Sam eat? Who had
A. Riley's share is larger than the share of Sam by (2/5)	○ В.	Sam's share is larger than the share of Riley by (1/5)
C. Riley's share is larger than the share of Sam by (1/5)	O D.	Riley's share is larger than the share of Sam by (4/5)
Question: 9 of 50	QID: 19512	Marks: 1
Every integer is a number		
A whole	О В.	natural
C. rational	O.	positive

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Question: 10 of 50	QID: 19502	Marks: 1
Is 9 a factor of 68b + 64c?		
○ A Yes	O B. No	
Question: 11 of 50	QID: 19476	Marks: 1
A local cricket team played 20 matches in o	one season. It won 25% of them. How many matches did they wi	in?
○ A 1	<b>B.</b> 5	
○ <b>C.</b> 4	O. 3	
Question: 12 of 50	QID: 19494	Marks: 1
The given figure shows a party cap. What	is the cross - section obtained when a horizontal cut parallel to	base is given to the cap?
A. Triangle	B. Square	
C. Rectangle	D. Circle	
Question: 13 of 50	QID: 19474	Marks:
A plane is flying at the height of 5000 m ab level. What is the vertical distance between	nove sea level. At a particular point, it is exactly above a submar in them?	rine floating 1200 m below sea
<b>A</b> 6200m	<b>B.</b> 3800m	
<b>C.</b> 6000m	<b>D.</b> 6020m	

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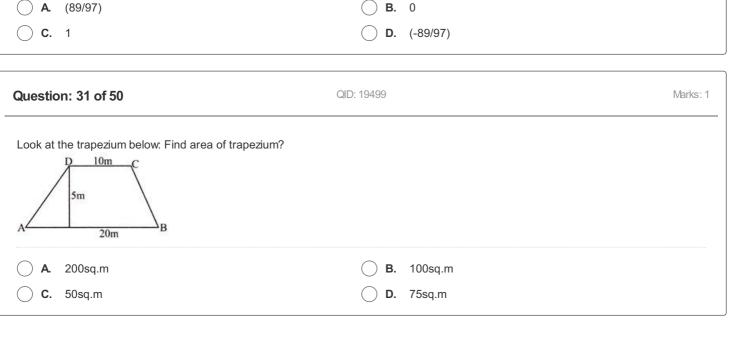
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Question: 18 of 50	QID: 19492		Marks: 1
If the circumference of a circular sheet is 154 m, find its rad	ius. Also, find the a	area of the sheet. (Take $\pi$ = 22/7)	
<b>A</b> 1886.5.	О В.	1880.5.	
<b>C.</b> 1086.5.	O D.	1896.5.	
Question: 19 of 50	QID: 19503		Marks: 1
The circular grass lawn of radius 28 m has a path of width 7	m around it on the	e outside. What is the area of the path?	
<b>A.</b> 1380 sq. m.	О В.	1280 sq. m.	
<b>C.</b> 1386 sq. m.	O.	1836 sq. m.	
Question: 20 of 50	QID: 19470		Marks:1
A student has to secure 33% marks to pass. He got 66 mar	ks and just got pas	ss marks. What is the maximum number of marks?	
<b>A</b> 100	○ В.	200	
<b>C.</b> 300	O.	400	
Question: 21 of 50	QID: 19510		Marks: 1
The decimals 0.919, 9.19, 0.0919, 91.96 and 0.9919 can b	e arranged in desc	cending order as	
<b>A.</b> 91.96>9.19>0.9919>0.0919	О В.	91.96>0.9919>9.19>0.0919>0.919	
<b>C.</b> 91.96>0.9919>0.0919>9.19>0.919	O D.	9196>9.19>0.919>0.0919	
Question: 22 of 50	QID: 19509		Marks: 1
Find the unknown angle y in the figure. t1  t2 $\frac{R}{y}$ $\frac{S}{45^{\circ}}$ $\frac{T}{t_1}$			
A 120 degrees	○ В.	125 degrees	
C. 150 degrees	O.	140 degrees	

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Question: 23 of 50	QID: 19478		Marks: 1
Simplify: $(-3)^2 \times (-5)^2$			
<ul><li>A. 225</li><li>C. 250</li></ul>	<ul><li>В.</li><li>В.</li></ul>	215 300	
<b>C.</b> 250		300	
Question: 24 of 50	QID: 19465		Marks:1
Wendy needs c cups of flour to make brownies. She has 5 curs of flour Wendy will have left after making the brownies.	ps of flour in he	er cupboard. Choose the expression that shows how	many
<b>A</b> 5-c	○ В.	С	
○ <b>C</b> . 5+c	O D.	c-5	
Question: 25 of 50	QID: 19513		Marks: 1
Identify the false statement.			
A. A triangle with two equal sides is called a scalene triangle.	О В.	A triangle with a right angle is called a right angled triangle.	
C. A triangle with three equal sides is called an equilate triangle.	eral D.	A right angled triangle has two acute angles and a angle.	right
Question: 26 of 50	QID: 19469		Marks:1
Four cows are tied at the four corner of the square field of sid field which remain ungrazed?	e 20m so that	they can just reach to each other. What is the area c	of the
A 80 square m	() В.	83 square m	
C. 87 square m	O D.	90 square m	
Question: 27 of 50	QID: 19487		Marks: 1
Add: – 7mn + 5, 12mn + 2, 9mn – 8, – 2mn – 3			
<b>A.</b> 12mn – 4	○ В.	12m – 4	
C. 12mn + 4	O D.	12mn + 40	

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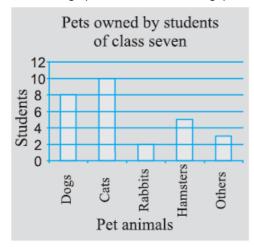
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Question: 40 of 50	QID: 19485		Marks: 1
Set up an equation in the following case.lra sa	ays that she has 7 marbles mor	e than five times the marbles Pam has	. Ira has 37 marbles
<b>A</b> 5m + 6 = 37	○ B.	5m + 7 = 37	
<b>C.</b> 5m + 1 = 37	O.	5m - 7 = 37	
Question: 41 of 50	QID: 19473		Marks:1
The perimeter of a square is 12 cm less than the rectangle is 20 cm, find its breadth?	the perimeter of a rectangle. E	ach side of the square is of length 16 o	cm. While the length of
<b>A</b> 12cm	О В.	14cm	
<b>C.</b> 18cm	○ D.	20 cm	
Question: 42 of 50	QID: 19477		Marks: 1
Arrange the following in descending order: 2/	9, 2/3, 8/21		
<b>A</b> (2/3) < (8/21) < (2/9)	○ в.	(2/3) >= (8/21) > (2/9)	
<b>C.</b> (2/30) > (8/21) > (2/9)	○ D.	(2/3) > (8/21) > (2/9)	
Question: 43 of 50	QID: 19508		Marks: 1
Which among the following pair of numbers a	re co-primes?		
<b>A</b> 10353 and 1073	○ B.	2233 and 3689	

**D.** 204 and 189

**C.** 3553 and 1755

Page 10 of 12 Print ID: 2024128174341100 Use the bar graph to answer the following questions. How many students have dogs as a pet?



	1		
(	)	A.	(

O. 12

(	)	R	10
(	/	υ.	10

**D.** 6

Question: 45 of 50	QID: 19486	Marks: 1
How do you write 20% as a decimal?		
<ul><li> A 2.0</li><li> C. 0.2</li></ul>	<ul><li><b>B.</b> 0.02</li><li><b>D.</b> 0.002</li></ul>	

Question: 46 of 50	QID: 19481	Marks: 1
Find the value of the unknown interior angle	x in the following figure:	
A 65 degrees	◯ B. 60 degrees	
C. 50 degrees	D. 100 degrees	

Question: 47 of 50	QID: 19507	Marks: 1
Simplify the expression: 5 - 4v + -6v		
A. −10v + 5	<b>○ B.</b> −6v + 5	

Question: 48 of 50	QID: 19475		Marks: 1
Find the area of each of the following paralled 4 cm	elogram.		
A. 20 square cm	○ В.	22 square cm	
C. 28 square cm	O D.	30 square cm	
Question: 49 of 50  Choose the correct option in which a triangle	QID: 19500 e CANNOT be constructed with the	ne given lengths of sides.	Marks: 1
<b>A</b> 13 cm, 6 cm, 8 cm	○ B.	6 cm, 6 cm, 6 cm	
C. 9 cm, 6 cm, 2 cm	○ D.	3 cm, 13 cm, 15 cm	
Question: 50 of 50	QID: 19489		Marks: 1
PQR is a triangle, right-angled at P. If PQ = 1	10 cm and PR = 24 cm, find QR.		
<b>A.</b> 25cm	О В.	26cm	
<b>C.</b> 36cm	○ D.	44cm	

--- END OF QUESTION PAPER ---

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