



INDIAN SCHOOL AL WADI AL KABIR

Mid-Term Exam REVISION PAPER (2023-24)

Class: VIII

Sub: MATHEMATICS

Instructions:

Section A: Multiple Choice Question (Q.1 to Q.15) & Source based Question (Q.16)

Section B: Short Answer Questions of 2 marks each (Q.17 to Q.21)

Section C: Long Answer Questions (Type – 1) of 3 marks each (Q.22 to Q.26)

Section D: Long Answer Questions (Type – 2) of 4 marks each (Q.27 to Q.31)

& Case study Question (Q.32 & Q.34) of 5 marks each.

Section A: Multiple Choice Question (Q.1 to Q.5) of 1 mark each

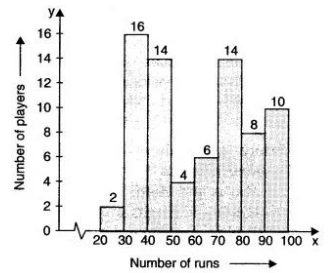
1.	If 20 – 30 is the class interval of a grouped data, then the lower-class limit is							
A	50	B	30	C	20	D	10	
2.	The number of sides of a regular polygon with each of its exterior angle 45° is:							
A	5	B	6	C	7	D	8	
3.	The value of $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19$ is:							
A	10	B	100	C	81	D	121	
4.	The multiplicative inverse of $1\frac{3}{7}$ is							
A	$\frac{-7}{10}$	B	$\frac{-10}{7}$	C	$\frac{7}{10}$	D	$\frac{10}{7}$	
5.	The angle sum of a convex polygon with number of sides 9 is:							
A	900	B	1080	C	1260	D	1440	
6.	The value of $\sqrt{\frac{11 \times 11 \times 3 \times 3}{25}}$ is:							

	A	$\frac{33}{25}$	B	$\frac{3}{5}$	C	$\frac{33}{5}$	D	$\frac{11}{5}$
7.	Name the property used: $\frac{-3}{7} \times \frac{4}{5} = \frac{4}{5} \times \frac{-3}{7}$							
	A	Associativity	B	Distributivity	C	Commutativity	D	Identity
8.	The measure of two angles of a quadrilateral are 115° and 45° and the other two angles are equal. The measure of each of the equal angles is:							
	A	200°	B	120°	C	100°	D	160°
9.	The possible unit digit in the square root of the number 1024 is:							
	A	4	B	2	C	9	D	6
10.	The multiplicative inverse of $\left(\frac{-3}{4}\right) \times \left(\frac{-7}{13}\right)$ is							
	A	$\frac{52}{21}$	B	$\frac{-52}{21}$	C	$\frac{21}{52}$	D	$\frac{-21}{52}$
11.	The difference between two numbers is 60. The ratio of the numbers is 7:3. Find the numbers.							
	A	120, 160	B	105, 45	C	70, 30	D	10, 50
12.	$(3^0 \times 5^0 \times 7^0) + 11^0$							
	A	4	B	0	C	1	D	2
13.	If $5(y - 3) - 4(y - 2) = 0$, then the value of y is							
	A	1	B	7	C	-1	D	-7
14.	The standard form of 0.0000856 is							
	A	0.856×10^{-5}	B	0.856×10^{-4}	C	8.56×10^{-5}	D	8.56×10^5
15.	$(3^{-10} \div 3^{-7}) \times 3^5$							
	A	10	B	7	C	9	D	8

Q16.

Source based Question -5 Marks

Observe the histogram and answer:



I How many players make runs less than 40?

- A** 8 **B** 2 **C** 18 **D** 10

II How many players made 80 or more runs?

- A** 8 **B** 10 **C** 18 **D** 14

III How many players made runs between 30 – 50?

- A** 30 **B** 28 **C** 20 **D** 32

IV What is the scale taken on Y axis?

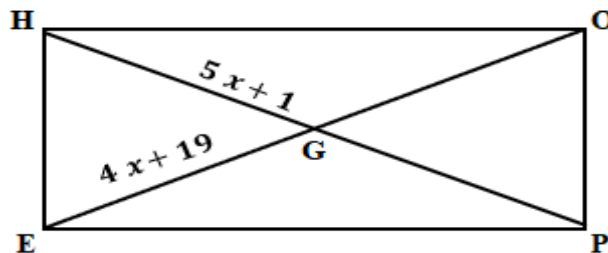
- A** 1 unit = 1player **B** 1 unit=10player **C** 1 unit = 2 player **D** 1unit=20player

V What is the ratio of players who scored 30- 40 and 70 – 80 runs?

- A** 2:3 **B** 7:8 **C** 8:7 **D** 2:5

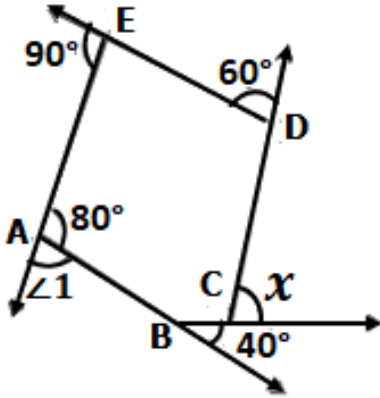
Section B: Short Answer Questions (Type – 1) of **2** marks each (Q.7 to Q.15)

17. In the figure, HOPE is a rectangle. Its diagonals meet at G. If $HG = 5x + 1$ and $EG = 4x + 19$, find x .



18.	Area of a square is $9801 m^2$. Find the side of the given square.
19.	Calculate the missing value of "x" in the following expression: $\left(\frac{11}{9}\right)^3 \times \left(\frac{11}{9}\right)^{-3} \times \left(\frac{11}{9}\right)^2 = \left(\frac{11}{9}\right)^{x-1}$
20.	Find using suitable property: $\frac{-7}{9} \times \frac{-4}{5} + \frac{-4}{15} \times \frac{-7}{9}$
21.	Find the value of x if $(2x - 1) + (x - 1) = x + 2$.

Section C: Long Answer Questions (Type – 1) of **3** marks each (Q.16 to Q.23)

22.	Find the measure of $\angle 1$ and x for the polygon. 
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23.	The sum of three consecutive integers is 105. What are the integers?
24.	Simplify: $\frac{4^{-3} \times a^{-5} \times b^{-4}}{4^{-5} \times a^{-8} \times b^3}$ ($a, b \neq 0$)
25.	Draw a single number line to represent the following sets of rational numbers on it: $\frac{-2}{9}$, $\frac{-5}{9}$, $\frac{-7}{9}$, 0 , 1 , $\frac{4}{9}$.
26.	Find the square root of 6241 by division method.

Section D: Long Answer Questions (Type – 2) (Q.24 to Q.28)

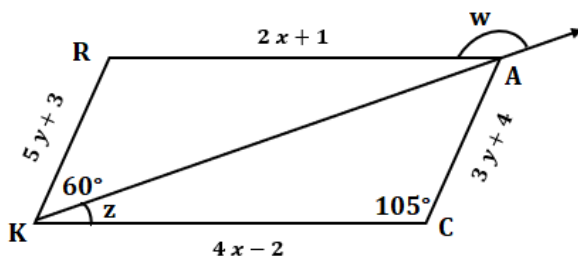
& Case study (Q.29 &30) of **4** marks each

27. In the time table of a school, periods allotted per week to different teaching subjects are given below:

Subject	Hindi	English	Maths	Science	Social Science	Computer	Sanskrit
Periods Allotted	7	8	8	8	7	4	3

Draw a pie chart for this data.

28. In the given parallelogram RACK, find the values of x and y , also the measures of z and w .



29. Find the smallest whole number multiplied by 1458 to get a perfect square number. Also find the square root of the square number so obtained.

30. Insert 4 rational numbers between $\frac{-3}{2}$ and $\frac{-7}{5}$.

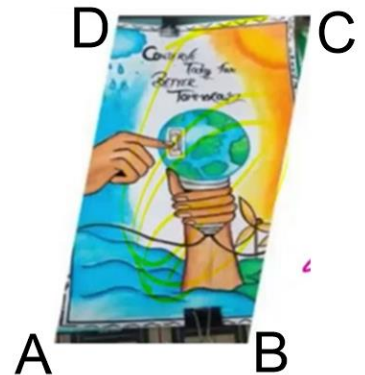
31. Solve the following:

i) $3(t - 3) = 5(2t + 1)$

ii) $\frac{5x-4}{8} - \frac{x-3}{5} = \frac{x+6}{4}$

32. Case Study-1

Ramesh makes a poster in the shape of a parallelogram on the topic SAVE ELECTRICITY for an Inter School Competition as shown in the figure:



- i) If $\angle A = (4x + 3)^\circ$ and $\angle D = (5x - 3)^\circ$, find the measure of $\angle A$.
- ii) Find the measure of $\angle B$.
- iii) If $\angle B = (2y)^\circ$ and $\angle D = (3y - 6)^\circ$, then find the value of y .
- iv) If $AB = (2y - 3)$ and $CD = 5$ cm, then what is the value of y ?

33. Case Study-2

Teacher's Day is a special day for the appreciation of teachers, and may include celebrations to honor them for their special contributions in a particular field area, or the community tone in education.

Student council had organized a wonderful programme and had welcomed teachers with handmade square shaped cards made by the student community.



Answer the following questions:

- i) If the painted area of the card is 289cm^2 , find the measure of the side of the card.
- ii) Find the Pythagorean triplet whose one member is 28.
- iii) How many natural numbers are there between 13^2 and 14^2 .
- iv) Find the square root of 20.25.
- v) Express 81 as the sum of consecutive odd numbers.

34. Case Study-3

Long awaited holidays and the children were too excited to play their favourite game. Rahul and Pranav were playing with number cards with numbers 1 to 20 written on it.

Shreya and Sheetal were playing with playing cards.



Based on the above information, answer the following questions:

- i) Find the probability that Rahul picks a card with odd number on it?
- ii) What is the probability of Shreya getting a card with Ace on it?
- iii) What is the probability of getting a 2-digit number?
- iv) Find the probability of getting alphabet M in playing cards?
- v) Find the probability of getting a number which is the multiple of 3?

ANSWERS

1	C	2	D	3	B	4	C	5	C
6	C	7	C	8	C	9	B	10	B
11	B	12	D	13	B	14	C	15	C
16	i)C ii)C iii)A iv)C v)C	17	18	18	99m	19	3	20	$\frac{112}{135}$

21	2	22	70^0	23	34, 35, 36	24	$\frac{16a^3}{b^7}$	25	79
28	X=1.5 Y=0.5 Z=15° W=165°	29	2, 54	31	t=-2 x=8	32	83 ⁰ 97 ⁰ 6 4	33	i)17cm ii)(14,255, 257) iii)26 iv)4.5 v)1+3+5+7 +9+11+ 13+15+17
34	i) $\frac{10}{20}$	34	ii) $\frac{1}{13}$	34	iii) $\frac{11}{20}$	34	iv) 0	34	v) $\frac{3}{10}$