



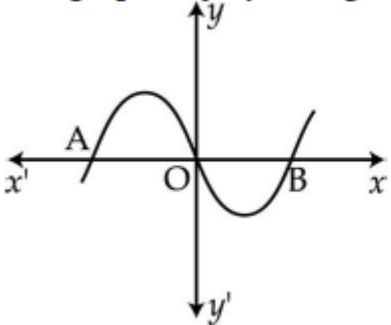
# INDIAN SCHOOL AL WADI AL KABIR

**Class X**, Mathematics - *Midterm Revision Worksheet-MCQ*

**12-09-2020**

## MULTIPLE CHOICE QUESTIONS

Q.1	Which of the following will have a non-terminating recurring decimal expansion :							
A	$\frac{7005}{64}$	B	$\frac{4112}{30}$	C	$\frac{8463}{40}$	D	$\frac{3985}{625}$	
Q.2	If one zero of the quadratic polynomial $2x^2 + kx - 15$ is 3, then the other zero is :							
A	-15	B	$-\frac{15}{2}$	C	$-\frac{5}{2}$	D	k	
Q.3	If $\Delta ABC \sim \Delta PQR$ and $\frac{BC}{QR} = \frac{1}{4}$ , then $\frac{\text{ar}(\Delta PRQ)}{\text{ar}(\Delta BCA)}$ equals :							
A	4	B	$\frac{1}{2}$	C	16	D	$\frac{1}{16}$	
Q.4	If two positive integers p and q can be expressed as $p = a^3b^2$ and $q = ab^3c^2$ , a, b, c being prime numbers, then HCF(p, q) is :							
A	abc	B	$ab^2$	C	$a^3b^3c^2$	D	$a^2b^2c^2$	
Q.5	A data has 13 observations arranged in descending order. Which observation represents the median of data ?							
A	7 <sup>th</sup>	B	6 <sup>th</sup>	C	13 <sup>th</sup>	D	8 <sup>th</sup>	
Q.6	If both the zeroes of a quadratic polynomial $ax^2 + bx + c$ are equal and opposite in sign, then b is :							
A	0	B	1	C	-1	D	5	
Q.7	If $\Delta ABC \sim \Delta DEF$ , $BC = 4$ cm, $EF = 5$ cm and area of $\Delta ABC = 80$ cm <sup>2</sup> , then area of $\Delta DEF$ is :							
A	100 cm <sup>2</sup>	B	125 cm <sup>2</sup>	C	150 cm <sup>2</sup>	D	200 cm <sup>2</sup>	

Q.8	<p>The graph of <math>y=f(x)</math> is given in the figure. The number of zeroes of <math>f(x)</math> is :</p> 																			
A	3	B	2	C	4	D	0													
Q.9	<p>Altitude of an equilateral triangle of side 'a' is :</p>																			
A	$\frac{a}{2}$	B	$\frac{\sqrt{3}}{4}a^2$	C	$\frac{\sqrt{3}a}{2}$	D	a													
Q.10	<p>If two positive integers p and q can be expressed as <math>p=a^3b^2</math> and <math>q=ab^3c^2</math>, a, b, c being prime numbers, then LCM(p, q) is :</p>																			
A	$a^3b^3c^3$	B	$a^2b^2c^2$	C	$a^3b^3c^2$	D	$ab^2$													
Q.11	<p>What is the median class of the following data ?</p> <table border="1" data-bbox="212 1058 1305 1142"> <thead> <tr> <th>Class</th> <th>0 - 10</th> <th>10 - 20</th> <th>20 - 30</th> <th>30 - 40</th> <th>40 - 50</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Frequency</td> <td>12</td> <td>8</td> <td>8</td> <td>15</td> <td>3</td> <td>46</td> </tr> </tbody> </table>						Class	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	Total	Frequency	12	8	8	15	3	46
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Frequency	12	8	8	15	3	46														
A	30 - 40	B	0 - 10	C	40 - 50	D	20 - 30													
Q.12	<p>If <math>\alpha</math> and <math>\beta</math> are the zeroes of a polynomial such that <math>\alpha + \beta = -6</math> and <math>\alpha\beta = 5</math>, then the polynomial is</p>																			
A	$x^2 - 6x - 5$	B	$x^2 + 6x - 5$	C	$-x^2 - 6x + 5$	D	$x^2 + 6x + 5$													
Q.13	<p>A man goes 15 m due west and then 8 m due north. The distance of the man from the starting point is :</p>																			
A	23 cm	B	23 m	C	17 m	D	7m													
Q.14	<p>The pair of equations <math>2x - y = 0</math> and <math>2y - x = 0</math> has</p>																			
A	infinitely many solutions			B	a unique solution															
C	two solutions			D	no solution															

Q.15	The LCM of the smallest two-digit number and the largest multiple of 6 which is less than 50 is																			
	A	2	B	48	C	120	D	240												
Q.16	Given in the table below are the marks obtained by 50 students in a class test:																			
	<table border="1"> <thead> <tr> <th>Marks</th> <th>1 – 10</th> <th>10 – 20</th> <th>20 – 30</th> <th>30 – 40</th> <th>40 – 50</th> </tr> </thead> <tbody> <tr> <td>No. of Students:</td> <td>4</td> <td>7</td> <td>19</td> <td>12</td> <td>8</td> </tr> </tbody> </table>								Marks	1 – 10	10 – 20	20 – 30	30 – 40	40 – 50	No. of Students:	4	7	19	12	8
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No. of Students:	4	7	19	12	8															
	From this data, the lower limit of median class is																			
	A	10	B	20	C	25	D	30												
Q.17	The total number of factors of a prime number is																			
	A	0	B	1	C	2	D	3												
Q.18	The sum of exponents of prime factors in the prime-factorisation of 196 is																			
	A	3	B	4	C	5	D	2												
Q.19	The value of k for which the system of linear equations $x + 2y = 3$ , $5x + ky + 7 = 0$ is inconsistent is																			
	A	$-\frac{14}{3}$	B	$\frac{2}{5}$	C	5	D	10												
Q.20	The value of $\lambda$ for which $(x^2 + 4x + \lambda)$ is a perfect square, is																			
	A	16	B	9	C	5	D	4												
Q.21	In Fig. 1, the graph of the polynomial $p(x)$ is given. The number of zeroes of the polynomial is																			
	<p style="text-align: center;">Fig. 1</p>																			
	A	1	B	2	C	3	D	0												

Q.22	If $\Delta ABC \sim \Delta DEF$ such that $AB = 1.2$ cm and $DE = 1.4$ cm, the ratio of the areas of $\Delta ABC$ and $\Delta DEF$ is							
	A	49 : 36	B	6 : 7	C	7 : 6	D	36 : 49
Q.23	If 'a' is a factor of 'b', then HCF (a, b) is :							
	A	'a'	B	'b'	C	$a \times b$	D	$\frac{a}{b}$
Q.24	If the ratio of the perimeters of two similar triangles is 4 : 25, then the ratio of the areas of the similar triangles is :							
	A	16:625	B	2:5	C	5:2	D	625:16
Q.25	The number to be added to the polynomial $x^2 - 5x + 4$ , so that 3 is the zero of the polynomial is :							
	A	2	B	-2	C	0	D	3
Q.26	The rational number between $\sqrt{2}$ and $\sqrt{3}$ is :							
	A	$\frac{6}{5}$	B	$\frac{3}{4}$	C	$\frac{3}{2}$	D	$\frac{9}{5}$
Q.27	If $x = 3m - 1$ and $y = 4$ is a solution of the equation $x + y = 6$ , then the value of 'm' is :							
	A	-1	B	0	C	1	D	2
Q.28	Sum and product of the zeroes of polynomial $x^2 - 3$ are respectively :							
	A	-3, 0	B	0, -3	C	0, 3	D	3, 0

## Answers

<b>Answers</b>	1	B	2	C	3.	C	4	B
	5	A	6	A	7	B	8	A
	9	C	10	C	11	D	12	D
	13	C	14.	B	15.	D	16.	B
	17	C	18	B	19	D	20	D
	21	B	22	D	23	A	24	A
	25	A	26	C	27	C	28	B

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