INDIAN SCHOOL AL WADI AL KABIR

PO 513, PC 117, WADI KABIR, SULTANATE OF OMAN
Department of Mathematics, 2018-2019

SUMMER MATHEMATICS HOLIDAY HOMEWORK [2018-19] CLASS-IX

Q.No	Questions	
1.	Simplify $(4\sqrt{5} - 3\sqrt{2})(4\sqrt{5} + 3\sqrt{2})$	62
2.	Express $1.3\overline{2} + 0.\overline{35}$ in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$.	$\frac{1659}{990}$
3.	Examine whether $(x + 1)$ is a factor of $3x^2 + x - 1$.	No
4.	Using suitable identity evaluate: $(103)^3$	1092709
5.	Find the mean of factors of 24.	7.5
6.	Find the median of the following data 19, 25, 59, 48, 35, 37, 30, 32, 51. If 25 is replaced by 52 what will be the new median.	35, 37
7.	If $\frac{\sqrt{2}+\sqrt{3}}{3\sqrt{2}-2\sqrt{3}} = a + \sqrt{6}\, b$, find the value of a and b if a and b are any rational numbers.	$a=2, b=\frac{5}{6}$
8.	If $2x - 1$ is a factor of $4x^3 - 16x^2 + 10x + k$, then find the value of k.	$k=\frac{-3}{2}$
9.	The following observations are arranged in ascending order : 26, 29, 42, 53, x, $x + 2$, 70, 75, 82, 93 .If the median is 65, find the value of x.	64
10.	Find the value of p if $5^{p-3} \times 3^{2p-8} = 225$.	5
11.	Factorize : $x^3 - 3x^2 - 9x - 5$ Ans: $(x + 1)(x + 1)(x - 5)$	
12.	If $x = 2y + 6$, find the value of $x^3 - 8y^3 - 36xy - 216$.	0
13.	Mean of 50 observations was found to be 80.4. But later on, it was discovered that 96 was misread as 69 at one place. Find the correct mean.	81

14.	Evaluate : $\frac{70}{\sqrt{10}+\sqrt{20}+\sqrt{40}-\sqrt{80}}$ if $\sqrt{10}$ = 3.16 and $\sqrt{5}$ = 2.24	13.96
15.	Factorise : $x^4 - 125\,xy^3$ Ans: $x(x-5)(x^2+5xy+25y^2)$	
16.	Obtain the mean of the following distribution: Frequency: 4, 8, 14, 11, 3 Variable: 4, 6, 8, 10, 12	8.05
17.	Simplify: $\frac{3\sqrt{2}}{\sqrt{6}-\sqrt{3}} - \frac{4\sqrt{3}}{\sqrt{6}-\sqrt{2}} + \frac{2\sqrt{3}}{\sqrt{6}+2}$	0
18.	Draw a histogram of frequency polygon for the following data Marks: 10 - 15, 15 - 20, 20 - 25, 25 - 30, 30 - 40, 40 - 60, 60 - 80 No. of students: 7, 9, 8, 5, 12, 12, 8	
19.	Following is the frequency distribution of total marks obtained by the students of different sections of Class VIII. Draw a histogram . Marks: 100 - 150, 150 - 200, 200 - 300, 300 - 500, 500 - 800 Number of students: 60, 100, 100, 80, 180	
20.	The marks obtained by 40 students of class IX in Mathematics are given below : 81, 55, 68, 79, 85, 43, 29, 68, 54, 73, 47, 35, 72, 64, 95, 44, 50, 77, 64, 35, 79, 52, 45, 54, 70, 83, 62, 64, 72, 92, 84, 76, 63, 43, 54, 38, 73, 68, 52, 54 Prepare a frequency distribution table with class - size of 10 marks.	

Submission Date: 7th Aug 2018

All the Best!