



# INDIAN SCHOOL AL WADI AL KABIR

Dept. of Mathematics

Class : VI

HOLIDAY HOMEWORK  
PLAYING WITH NUMBERS

Date: 08<sup>th</sup> June, 2016

1.	Write all prime numbers between 1 to 100.
2.	Draw a rough diagram to illustrate (i) an open curve (ii) a closed curve (iii) a polygon
3.	Find first three multiples of 12 , 15 and 19.
4.	Write all even numbers between 2 and 30 which are multiples of (i) 5 (ii) 8 ans.(i) 10 ,20 ans.(ii) 16, 24
5.	Draw a polygon of 5 sides , name it in 3 different ways.
6.	Prime factors of $36 = 2 \times 3 \times 6$ . Is it true? Give reason.
7.	Write all odd numbers between 3 and 30 which are also multiples of 5. Ans.15 ,25
8.	Find the first three common multiples of 3,5 and 6. Ans.30 ,60 ,90
9.	Make factor tree for (a) 48 (b) 75 (c) 56 (d) 84
10.	Find the prime factors of (a) 1080 (b) 4725 (c) 945 (d) 375 (e) 1512
11.	Find the prime factors of 105. Arrange the factors in ascending order and find the relation between two consecutive factors.
12.	Write the smallest 5- digit number and express it as a product of prime factors. hint find the factors of 10000
	Write the greatest 4-digit number and express it as a product of prime factors. hint : find the factors of 9999
13.	Test the divisibility of numbers by 6 : (a) 72354 (b) 40083 (c) 18620 hint: check the divisibility test of 2 and 3 and then decide
14.	Test the divisibility of numbers by 8 : (a) 14548 (b) 437536 (c) 169804 hint : divide the last 3 digits by 8 and then decide

15.	Test the divisibility of numbers by 11 : (a) 61809 (b) 586949 (c) 971245 (d) 254769 hint : find the difference of the sum of odd place and even place digits and the decide
16	Find the H.C.F. & L.C.M. of (a) 170 , 238 (b) 272, 425 (c) 72, 108, 180 (d) 18,24, 32 (e) 28,35,49 ans(a) 34, 1190 (b) 17 , 6800 (c) 36 , 1080 (d) 2 , 288 (e) 7 , 980
17.	Find the least number which when divided by 25, 45, 60 leaves a remainder 1 in each case. ans. 901
18.	Find a number close to 6000 which is divisible by 33, 55, 25. ans. LCM = 825 , 5775
19.	There are 4 bells which toll at intervals of 3, 7, 12,14 seconds respectively. The 4 bells begin to toll at 12 O'clock.When will they next toll together and how often will they do so in 14 minutes? [HOTS] ANS.: 1 minute 24 sec., 10 times.
20.	Raju was arranging the chairs around the table in a hotel. He tried to arrange 4, 6 or 8 chairs around each table.In each of his attempt he found that 2 chairs were left extra. What is the minimum number of chairs he had to arrange? [answer.: 26]
21.	A toy car completes one round in a circular path in 120 seconds. Another car completes a round around another circular path in 180 seconds. Both cars started together at a same place and run in opposite directions. After how many minutes will both the cars be at the place from where they started ? ans. 6 minutes
22.	Draw rough diagrams of two angles such that they have (a) one point in common (b) two points in common (c) three points in common (d) four points in common.
23.	Draw a pair of (i) intersecting lines (ii) parallel lines using scale and pencil.
24.	I am the smallest number having 4 different prime factors. Can you find me ? If yes, express me as a product of 2 numbers ( prime $\times$ composite ) in 4 different ways. hint multiply the first 4 prime numbers,then take one prime no. with the product of other three
25.	Draw any circle of radius 5 cm , label it to show the following in it. (a) Centre (b) a radius (c) a diameter (d) a chord (e) a segment (f) a sector (g) one –one point in its interior and exterior (h) a minor arc