INDIAN SCHOOL NIZWA - WORKSHEET

MATHEMATICS

1. REAL NUMBERS

Name: _____ Date:_____ Class: X Sec: ___

1.	HCF(a,b)=12 and LCM(a,b)=240. If a=48, find b.
2.	p and q are two consecutive natural numbers. Find the HCF and LCM of p and q.
3.	What is the HCF of smallest prime number and smallest composite number?
4.	Can 6^n end with zero for any value of n? Give reason to support your answer.
5.	If $a = x^3y^2z^2w \quad and \quad b = xy^3z,$ find the HCF and LCM of a and b.
6.	If $a = x^2yz^2 \quad and \quad b = xy^2z^3,$ find the HCF and LCM of a and b.
7.	HCF(a,90)=10, LCM(a,90)=630, find a.
8.	p and q are two consecutive prime numbers. Find the HCF and LCM of p and q.
9.	p and q are two consecutive even numbers. Find the HCF and LCM of p and q.
10.	Prove that $7 - 2\sqrt{3}$ is irrational.
11.	Can 12^n end with zero for any value of n? Give reason to support your answer.
12.	Check 19x17x15x11x7x3x2x1+5x1 is prime or composite.
13.	How many zeroes does $19x11x15x2^3x5$ ends with.
14.	The length, breadth and height of a room are 5m50cm, 4m25cm and 3m respectively. Find the length of longest rod which can measure three dimension in exact number of times.
15.	The capacity of two water tanks are 1200 litres and 850litres. Find the capacity of largest container which can exactly measure both tanks.
16.	Check 23x13x15x7x2x1+11x3 is prime or composite. Give reason to support your answer.
17.	How many zeroes does $17x11^2x2^4x3x5^3$ ends with.
18.	The capacity of two water tanks are 900litres and 750litres. Find the capacity of largest container which can exactly measure both tanks.
19.	On a morning walk three persons step off together and their steps measures 40cm, 45cm and 60cm. What is the minimum distance each should walk so that they can cover the same distance in complete steps.
20.	Prove that $5+2\sqrt{3}$ is irrational.
21.	Find the greatest number which divides 281 and 1249, leaving remainder 5 and 7 respectivley.
22.	Aadhya has 143 stamps, she gives away 11 stamps and divides the remaining equally into groups. Sumit has 220 stamps, he gives away 11 stamps and divides the remaining equally

into groups. They end up with the same number of groups.

a) What is the number of groups.

b) What is the number of stamps in Aadhya's and Sumit's groups?

Priya is an artificial jewellery seller. She buys them from a dealer at a price based on the presence or absence of stones as shown in the table below.

ITEM	WITH STONES	WITHOUT STONES
Ring	110	70
Earring pair	170	90
Bangle pair	90	120

a) For every ring with stones, two rings without stones are purchased by Priya's customers. Priya buys rings accordingly from the dealer for Rs 10,000. How many rings does she buy?

b) In her next visit to the dealer, Priya finds that dealer has increased the price of rings with stones by Rs 10. Priya still wants to spend Rs 10,000 on rings. What is the reduction in the number of rings she buys?