X MATHEMATICS, REAL NUMBERS, WORK SHEET 1

1)Using Euclid's division algorithm ,find the HCF OF 9828 and 14742.

2)If LCM (480,672) = 3360, find HCF (480, 672).

3)Can two numbers have 18 as their HCF and 380 as their LCM ?Give reason .

4)Without actual division, find whether the rational number $\frac{1323}{6^3 \, x \, 35^2}$ has a terminating or non-terminating decimal.

5)Two tankers contain 850 litres and 680 litres of kerosene oil respectively .Find the maximum capacity of a container which can measure the kerosene oil of both the tankers when used an exact number of times.

6)State the Fundamental theorem of Arithmetic..

7)Why the number 4^n ,where n is a natural number ,cannot end with 0 ?

8)Why is 5 X 7 x 11 + 7 is a composite number ?

9)Find the HCF and LCM of 144,180 and 192 by using prime factorisation method.

10)Find two rational number and two irrational number between √2 and √3.

11)Prove that 7 - 2√3 is an irrational number.

12) Use Euclid's division algorithm to find the HCF of 441, 567, 693.

13) On a morning walk, three persons step off together and their steps measure 40 cm,

42 cm and 45 cm, respectively. What is the minimum distance each should walk so

that each can cover the same distance in complete steps?

14) Show that the square of any positive integer is either of the form $4m$ or $4m + 1$ for

some integer q.

15)The product of three consecutive positive integers is divisible by 6". Is this statement

true or false"? Justify your answer.