

KALYAN ACADEMY

BHARATH NAGAR, HYD-18
REAL NUMBERS | CLASS X | WORKSHEET -3

SA and LA:

- Find LCM and HCF of the following by prime factorization method
a) 8,9,25 b) 12,15,21 c) 17,23,29 d) 144,180,192
- Find the largest positive integer that will divide 398,436 and 542 leaving remainders 7, 11 and 15 respectively?
- What is the smallest number that, when divided by 35,56 and 91 leaves remainders of 7 in each case?
- Find the LCM and HCF of 510 and 92 and verify $\text{LCM} \times \text{HCF} = \text{product of two numbers}$?
- State whether the followings are terminating or non terminating repeating decimals.
a) $\frac{35}{50}$ b) $\frac{13}{125}$ c) $\frac{13}{3125}$ d) $\frac{2139}{1250}$
- Express the following denominators in $2^n \times 5^m$ form
a) 0.875 b) 1.512 c) 0.01764 d) 27.7624
- Express the followings are product of its prime factors
a) 420 b) 468 c) 945 d) 7325 e) 5005
- Prove that there is no natural number for which 4^n ends with the digit 0?
- Prove that the followings are irrational
a) $3\sqrt{2}$ b) $\sqrt{3}$ c) $\sqrt{2} + \sqrt{5}$ d) $5-2\sqrt{3}$
- Find the HCF of 96 and 404 by prime factorization method. Hence find L.C.M?
- The HCF of two numbers is 16 and their product is 3072. Find their LCM?
- Can two numbers have 18 as their HCF and 380 as their LCM? Give reason
- Find the greatest number of 6 digits exactly divisible by 24, 15 and 36.

VSA:

- State fundamental theorem of arithmetic?
- Write the exponent of 2 in 144
- If the prime factorization of a natural number n is $2^3 \times 3^2 \times 5^2 \times 7$, Write the number of consecutive zeros in n?
- Write the condition to be satisfied by q so that the rational number $\frac{p}{q}$ has a terminating decimal expansion?
- Write the condition to be satisfied by q so that the rational number $\frac{p}{q}$ has a non terminating decimal expansion?
- The decimal expansion of the rational number $\frac{43}{2^4 \times 5^3}$ will terminate after how many places of decimals?
- If p and q are two prime numbers then what is their HCF?
- If p and q are two prime numbers then what is their LCM?
- What is the total number of factors of a prime number?
- For what value of n, $2^n \times 5^m$ ends with 5?
- Find the least number that is divisible by all numbers between 1 and 10 (both inclusive).
- Write a rational number between $\sqrt{2}$ and $\sqrt{3}$.