



ASSIGNMENT

CH. 1(REAL NUMBERS)

CLASS - X

- The largest number which divides 70 and 125 leaving remainders 5 and 8 respectively, is
a) 13 b) 65 c) 875 d) 1750 (1)
- If two positive integers p and q can be expressed as $p = ab^2$ and $q = a^3b$; where a, b being prime numbers, then LCM (p, q) is equal to
a) ab b) a^2b c) a^3b^2 d) a^3b (1)
- if the GCD of 65 and 117 is expressible in the form $65m - 117$, then the value of m is
a) 4 b) 2 c) 1 d) 3 (1)
- The HCF of two numbers a and b is 5 and their LCM is 200, then the product of ab is
a) 1000 b) 100 c) 2000 d) 500 (1)
- The decimal expression of rational number $\frac{21}{24}$ will terminate after
a) 1 decimal places b) 2 decimal places c) 3 decimal places d) 4 decimal places (1)
- Write 320 as product of prime factors. Is this prime factorisation unique? (2)
- Can we have any $n \in \mathbb{N}$, where 12^n ends with the digit zero or 5? (2)
- By using Fundamental theorem of Arithmetic, Find HCF and LCM of 17, 23 and 29. (2)
- Prove that $3 + 5\sqrt{2}$ is irrational, Given that $\sqrt{2}$ is irrational number. (3)
- Use Euclid's division algorithm to show that the square of any positive integer is of the form $3m$, $3m+1$ for some integer m . (3)
- Show that $\sqrt{3}$ is irrational number. (3)
- Show that only one out of n , $n+2$ or $n+4$ is divisible by 3 where n is positive integer. (4)
- Use Euclid's division algorithm to show that the cube of any positive integer is of the form $9m$, $9m+1$ or $9m+8$. (4)

14. There is a circular path around a sports field. Sita takes 20 minutes to drive one round of the field, while Ram takes 15 minutes for the same. Suppose they both start at the same point and at the same time, and go in the same direction. After how many hours will they meet again at the starting point?

(4)

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