CLASS – X

Chapter – 1st (Real Number)

1. Prove that $\sqrt{7}$ is irrational.
2. Prove that the followings are irrationals: - (a) $\frac{1}{\sqrt{2}}$ (b) 6 + $\sqrt{2}$
3. Express 23150 as a product of its prime factors. Is it unique?
4. Find LCM and HCF of 3930 and 1800 by prime factorisation method.
5. The length, breadth and height of a room are 8m 50cm, 6m 25cm and 4m 75cm respectively. Find the length of the longest rod that can measure the dimensions of the room exactly.
6. State Fundamental theorem of Arithmetic. Find the HCF & LCM of numbers 2520 and 10530 using prime factorization method.
7. Find the HCF and LCM of 510 and 92 and verify the HCF x LCM = product of two given numbers.
8. Check whether 4n can end with digit 0 for any natural number n.
9. The HCF of 65 and 117 is expressible in the form 65m – 117. Find the value of m. Also find the LCM of 65 and 117 using prime factorization method.
10. Three bells toll at intervals of 9, 12, 15 minutes respectively. If they start tolling together, after what time will they next toll together?
11. Find HCF and LCM of 16 and 36 by prime factorisation and check your answer.
12. Prove that $\sqrt{3}$ is an irrational number.
13. Can the number 6n, n being a natural number, end with the digit 5? Give reasons.
14. If p is prime number, then prove that $\sqrt{p}$ is an irrational.
15. Find HCF and LCM of 378, 180 and 420 by prime factorization method.