

Chapter - 1 # # class - 10 # # Real Number # # Assignment

1. Prove that $5-2\sqrt{3}$ is an irrational number. It is given that $\sqrt{3}$ is an irrational number. [cbse 2024]
2. Show that the number $5 \times 11 \times 17 + 3 \times 11$ is a composite number. [cbse 2024]
3. If two positive integers p and q can be expressed as $p = 18a^2b^4$ and $q = 20a^3b^2$, where a and b prime then $\text{LCM}(p, q)$ is [cbse 2024]
4. If the $\text{HCF}(2520, 6600) = 40$ and $\text{LCM}(2520, 6600) = 252 \times k$, then the value of k [cbse 2024]
5. Prove that $\sqrt{5}$ is irrational [cbse 2024] [cbse 2023]
6. Three bells toll at interval of 9, 12 and 15 min. If they start tolling together, after what time will they next toll together. [cbse 2023] [cbse 2024]
7. Prove that $\frac{2-\sqrt{3}}{5}$ is an irrational no. given that $\sqrt{3}$ is an irrational No. [cbse 2024]
8. Can the number 8^n , n being a natural number, end with digit 0. Give reason [cbse 2024]
9. Prove that $(\sqrt{2} + \sqrt{3})^2$ is an irrational number. given that $\sqrt{6}$ is an irrational [cbse 2024]
10. If the product of two co-prime numbers is 553, then their HCF is. [cbse 2024]
11. Find the least number which when divided by 12, 16 and 24 leaves remainder 7 in each case [cbse 2023]
12. Find by prime factorisation the LCM of the number 18180 and 7575. Also, find the HCF of the two numbers [cbse 2023]
13. Two numbers are in the ratio 2:3 and their LCM is 180. What is the HCF of these numbers [cbse 2023]

14. The traffic lights at three different road crossing change after every 48 seconds, 72 seconds, 108 seconds. If they change simultaneously at 7 a.m. at what time will they change together next. [cbse 2023]

15. Find the HCF and LCM of 26, 65 and 117 using prime factorisation or [cbse 2023]

Prove that $\sqrt{2}$ is an irrational number