



Laying the foundation of lifelong success

CHAPTER 1

Real Number

(Previous Years' Questions)

2- Markers

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1. Find the length of the plank that can be used to measure the lengths 4 m 20 cm and 5 m 4 cm exactly, in the least time. **(2026)**
 2. Prove that $4 - 2\sqrt{5}$ is an irrational number, given that $\sqrt{5}$ is irrational. **(2026)**
 3. If LCM of 51 and 85 can be expressed in the form of $6z - 9$, then find the value of z . **(Comptt., 2025)**
 4. If $\sqrt{7}$ is an irrational number, then prove that $2\sqrt{7}$ is also an irrational number. **(Comptt., 2025)**
 5. Show that 14^n cannot end with the digit 0 or 5 for any natural number n . **(Comptt., 2025)**
 6. (a) Find the smallest number which is divisible by both 644 and 462.
OR
(b) Two numbers are in the ratio 4: 5 and their HCF is 11. Find the LCM of these numbers. **(2025)**
 7. Prove that $7 - 3\sqrt{5}$ is an irrational number, given that $\sqrt{5}$ is an irrational number. **(Comptt., 2024)**

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8. Prove that $\sqrt{3}$ is an irrational number. **(Comptt., 2024)**
9. Check whether there is any natural number ' n ' for which $(14)^n$ ends with the digit '0' or '5'.
(Comptt., 2024)
10. (A) Prove that $5 - 2\sqrt{3}$ is an irrational number. It is given that $\sqrt{3}$ is an irrational number.
OR
(B) Show that the number $5 \times 11 \times 17 + 3 \times 11$ is a composite number. **(2024)**
11. Can the number $(15)^n$, n being a natural number, end with the digit 0? Give reasons. **(2024)**
12. Explain why $7 \times 11 \times 13 + 13$ and $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$ are composite numbers. **(2024)**
13. Can the number 8^n , n being a natural number, end with the digit 0? Give reasons. **(2024)**
14. Three bells toll at intervals of 9, 12 and 15 minutes respectively. If they start tolling together, after what time will they next toll together? **(2024)**

15. In a school, there are two sections of class X. There are 40 students in the first section and 48 students in the second section. Determine the minimum number of books required for their class library so that they can be distributed equally among students of both sections. **(2024)**

16. (a) If $\sqrt{2}$ is given as an irrational number, then prove that $(5 - 2\sqrt{2})$ is an irrational number.

OR

- (b) Check whether 6^n can end with the digit 0 for any natural number n . **(Comptt., 2023)**

17. Find the greatest number which divides 85 and 72 leaving remainders 1 and 2 respectively. **(2023)**

18. Find the least number which when divided by 12, 16 and 24 leaves remainder 7 in each case. **(2023)**

19. Prove that $2 + \sqrt{3}$ is an irrational number, given that $\sqrt{3}$ is an irrational number. **(2023)**

20. Prove that 4^n can never end with digit 0, where n is a natural number. **(2023)**

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21. Prove that $6 - \sqrt{7}$ is an irrational number, given that $\sqrt{7}$ is an irrational number. **(2023)**
22. Two numbers are in the ratio 2 : 3 and their LCM is 180. What is the HCF of these numbers? **(2023)**
23. Using prime factorisation, find HCF and LCM of 96 and 120. **(2023)**
24. Find the greatest 3-digit number which is divisible by 18, 24 and 36. **(2023)**
25. (A) Show that 6^n can not end with digit 0 for any natural number ' n '.
OR
(B) Find the HCF and LCM of 72 and 120. **(2023)**

