

17. Find the LCM of numbers whose prime factorization is expressible as 3×5^2 and $3^2 \times 7^2$.
(Ans: 11025)
18. If two positive integers x & y are expressible in terms of primes as $x = p^2q^3$ and $y = p^3q$, what can you say about their LCM and HCF? Is LCM a multiple of HCF? Explain?
19. On a morning walk, three persons step off together and their steps measure 40cm, 42cm and 45cm respectively. What is the minimum distance each should walk so that each can cover the same distance and complete steps?
(Ans: 2520cm)
20. The length, breadth, and height of a room are 8m 25cm, 6m 75 cm, and 4m 50cm respectively. Find the length of the longest rod that can measure the three dimensions of the room exactly.
(Ans: 75cm)
21. Explain why $(17 \times 5 \times 11 \times 3 \times 2 + 2 \times 11)$ is a composite number
22. Prove that $\sqrt{2} + \sqrt{3}$ is irrational
23. Three sets of English, Hindi and Sociology books dealing with cleanliness have to be stacked in such a way that all the books are stored topic wise and height of each stack is the same. The number of English books is 96, number of Hindi books is 240 and the number of Sociology books is 336. Assuming that the books are of same thickness, determine the number of stacks of English, Hindi and Sociology books.
(Ans : 2, 5, 7)
24. Three alarm clocks ring at intervals of 4, 12 and 20 minutes respectively. If they start ringing together, after how much time will they ring together?
25. In a seminar on the topic 'liberty and equality' the number of participants from Hindi, Social Science and English department are 60, 84 and 108, respectively. Find the minimum number of rooms required if in each room the same number of participants are to be seated and all of them being in the same subject.
(Ans: 21)