1. Use Euclid's division algorithm to find the HCF of 1288 and 575.

Ans 23

2. Check whether 5X3X11+11 and 5X7+7X3+3 is composite number and justify.

Ans. Composite number.

3. Check whether 6^n can end with the digit 0, where n is any natural number.

Ans. No, 6n can not end with the digit 0.

4. Given that LCM (26, 169) = 338, write HCF (26, 169).

Ans. HCF = 6, LCM = 360

5. Show that √3 is an irrational number.

6. Show that 5 + 3√2 is an irrational number.

7. Show that square of an odd positive integer is of the form 8m + 1, for some integer m.

8. Find the LCM & HCF of 26 and 91 and verify that HCF X LCM = product of two numbers.

Ans. LCM=182, HCF=13

9. Draw the factor tree for 678.

10. If d is the HCF of 45 and 27, find x & y satisfying d=27x +45y.

11.Find the greatest number of 6 digits exactly divisible by 24, 15 and 36.

12.There is a circular path around a sports field. Sonia takes 18 minutes to drive one round of the field, while Ravi takes 12 minutes for the same. Suppose they both start at the same poi and at the same time and go in the same direction. After how many minutes will they meet again at the starting point?

13.Use Euclid's division lemma to show that the cube of any positive integer is of the form 9m,9m + 1 or 9m + 8.

14.Prove that 3 + 2 √5 is irrational.

15.Express 140 as a product of its prime factors

16.Find the LCM and HCF of 12, 15 and 21 by the prime factorization method.

17.Find the LCM and HCF of 6 and 20 by the prime factorization method.

18.State whether13/3125 will have a terminating decimal expansion or a non- terminating repeating decimal.

19. State whether 17/8 will have a terminating decimal expansion or a non-terminating repeating decimal.

20. Find the LCM and HCF of 26 and 91 and verify that LCM x HCF = product of the two numbers.

21. Use Euclid's division lemma to show that the square of any positive integer is either of the form 3m or 3m + 1 for some integer m

22. Show that any positive odd integer is of the form 6q + 1, or 6q + 3, or 6q + 5, where q is some integer.

23. An army contingent of 616 members is to march behind an army band of 32 members in a parade. The two groups are to march in the same number of columns. What is the maximum number of columns in which they can march?

24. Express 156 as a product of its prime factors.

25. Find the LCM and HCF of 17, 23 and 29 by the prime factorization method.

26. Find the HCF and LCM of 12, 36 and 160, using the prime factorization method.

27.State whether 6/15 will have a terminating decimal expansion or a non-terminating repeating decimal.

28.State whetber35/50 will have a terminating decimal expansion or a non-terminating repeating decimal