



HCF AND LCM FOR CSAT_QUESTIONS

1. If $P = 2^3 \cdot 3^{10} \cdot 5$, $Q = 2^5 \cdot 3 \cdot 7$, then find the HCF of P & Q?
(A) $2 \cdot 3 \cdot 5 \cdot 7$ (B) $3 \cdot 2^3$
(C) $2^2 \cdot 3^7$ (D) $2^5 \cdot 3^{10} \cdot 5 \cdot 7$
2. The ratio of two number is 4 : 5. If their HCF is 3, then find their LCM.
(A) 27 (B) 12
(C) 15 (D) 60
3. The LCM and the HCF of the numbers 28 and 42 are in the ratio:
(A) 6 : 1 (B) 2 : 3
(C) 3 : 2 (D) 7 : 2
4. What is the LCM of $x^2 + 2x - 8$, $x^3 - 4x^2 + 4x$ and $x^2 + 4x$?
(A) $x(x+4)(x-2)^2$ (B) $x(x+4)(x-2)$
(C) $x(x+4)(x+2)^2$ (D) $x(x+4)^2(x-2)$
5. LCM of two numbers is 120 and HCF is 4. If one of the numbers is between 5 and 11, then find the sum of both numbers.
(A) 58 (B) 86
(C) 84 (D) None of the above
6. LCM of two numbers is 495 and HCF is 5. If the difference of both the numbers is 10, then find the sum of both numbers.
(A) 20 (B) 40
(C) 60 (D) 100
7. The sum of the HCF and LCM of two numbers is 680 and the LCM is 84 times the HCF. If one of the numbers is 56, then find the other number.
(A) 84 (B) 12
(C) 8 (D) 96
8. Find the least number which when increased by 5 is divisible by 12 and 16.
(A) 43 (B) 53
(C) 48 (D) 91
9. LCM of two numbers is 120 and HCF is 4, then find how many such pairs are possible?
(A) 4 (B) 3
(C) 5 (D) 6
10. Let 'a' denote the set of positive integers each of them when divided by 12 and 16 leaves 3 as the remainder. How many of the numbers in 'a' are between 19 and 400?
(A) 7 (B) 9
(C) 8 (D) 6
11. Let A Denote the set of positive integers, each of them when divided by 2, 3, 4, 5 and 6 leaves the remainder of 1, 2, 3, 4 & 5 respectively. How many numbers in A are between 19 and 400?
(A) 7 (B) 9
(C) 8 (D) 6
12. HCF of two numbers is 9. If these two numbers are in the ratio of 12 : 11, then find the numbers.
(A) 108 & 90 (B) 108 & 99
(C) 120 & 96 (D) 99 & 90
13. Three numbers are in the ratio 2 : 3 : 4 and their HCF is 15, then find the LCM of the numbers.
(A) 90 (B) 180
(C) 360 (D) 150
14. Find the greatest number that will divide 43, 91 and 183 so as to leave the same remainder in each case.
(A) 2 (B) 8
(C) 4 (D) None of these
15. Find the number nearest to 10000, which is exactly divisible by each of 3, 4, 5, 6, 7 and 8.
(A) 9920 (B) 9240
(C) 10040 (D) 10080
16. The sum of two numbers is 528 and their HCF is 33. The number of pairs of numbers satisfying the above conditions is:
(A) 3 (B) 1
(C) 4 (D) 5
17. The product of two numbers is 8112 and their HCF is 26. The number of such pairs is:
(A) 3 (B) 1
(C) 4 (D) 2



18. The sum of two numbers is 756 and their HCF is 63. How many such pairs of numbers can be formed?

- (A) 2 (B) 4
(C) 5 (D) 3

19. Find the least number that should be added to 2021 such that the resulting number can be divided by 2, 3, 4, 5 and 6 leaving no remainder.

- (A) 18 (B) 20
(C) 17 (D) 19

20. The sum of two numbers is 225. Their difference is $\frac{225}{9}$ of their sum. Find the LCM.

- (A) 500 (B) 100
(C) 400 (D) 200

21. Which is the least number which when doubled will be exactly divisible by 2, 3, 6, 9, 10, 12 and 15?

- (A) 180 (B) 360
(C) 90 (D) 270

Directions (22 - 24): A milkman sells three kinds of milk. On a particular day, he has 165 liters, 105 litres and 195 litres of the three kinds of milk. He wants to bottle them in bottles of equal sizes so that each of the three varieties of milk would be completed bottled. Study the data carefully and answer the following questions:

22. What is the size of the largest bottle which can be used?

- (A) 25 litre (B) 9 litre
(C) 35 litre (D) 15 litre

23. How many bottle sizes are possible such that the bottle size in terms of litres is an integer?

- (A) 4 (B) 2
(C) 1 (D) 3

24. What are the minimum number of bottles that would be required?

- (A) 15 (B) 30
(C) 31 (D) 33

25. If 13225 rose plants are to be arranged in such a way that there are as many rows as there are rose plants in a row, then the number of rows will be:

- (A) 95 (B) 65
(C) 115 (D) 125

26. Find the least number of 4 digits which is completely divisible by 12, 15 & 18.

- (A) 1020 (B) 1080
(C) 1060 (D) 1120

27. Find the greatest number of 4 digits which when divided by 666 leaves a remainder 7.

- (A) 9983 (B) 9990
(C) 9997 (D) 9331

28. Let N be the greatest number that will divide 1305, 4665 and 6905, leaving the same remainder in each case. Then find the sum of the digits in N.

- (A) 4 (B) 7
(C) 5 (D) 6

29. A gardener had a number of shrubs to plant in row. At first he tried to plant 8, then 12 and then 16 in a row but he always had 3 shrubs left with him. On trying 7 shrubs he was left with none, then find the minimum number of shrubs.

- (A) 147 (B) 144
(C) 141 (D) None of these

30. A, B and C start running at the same time and at the same point in the same direction in a circular stadium. A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds. After what time will they meet again at the starting point?

- (A) 26 minutes 18 seconds
(B) 42 minutes 36 seconds
(C) 45 minutes
(D) 46 minutes 12 seconds

31. Find the maximum number of students among whom 1067 pens and 1261 pencils can be distributed in such a way that each student gets same number of pens and same number of pencils.

- (A) 97 (B) 24
(C) 101 (D) 91

32. Three traffic lights change their colour at an interval of 12, 15 & 18 seconds if these lights altogether changed their colour at 10:20 AM. Then at what time they will change their colour 9th time simultaneously.

- (A) 10:50 am (B) 10:42 am
(C) 10:44 am (D) 10:47 am

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