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LCM & HCF

PROBLEM 1:

What least number must be subtracted from 1294 so that the remainder when divided by 9, 11,13 will leave in each case the same remainder 6 ?

A. 0
B. 1
C. 2
D. 3

ANS:**B**

PROBLEM 2:

Find the number lying between 900 and 1000 which when divided by 38 and 57, leaves in each case a remainder 23 ?

A. 935
B. 945
C. 925
D. 955

ANS:A

PROBLEM 3:

Find the sum of three numbers which are prime to one another such that the product of the first two is 437 and that of the last two is 551 ?

A. 91
B. 81
C. 71
D. 70

ANS:**C**

PROBLEM 4:

What least number must be subtracted from 1936, so that the remainder when divided by 9, 10, 15 will leave in each case the same remainder 7 ?

A. 46
B. 53
C. 39
D. 44

ANS:C

PROBLEM 5:

An inspector of schools wishes to distribute 84 balls and 180 bats equally among a number of boys. Find the greatest number receiving the gift in this ways ?

A. 14
B. 15
C. 16
D. 12

ANS:D

PROBLEM 6:

If the HCF of a and b are 12 and a, b are positive integers and a > b > 12, then what will be the values of a and b?

A. 12, 24
B. 24, 12
C. 24, 36
D. 36, 24

ANS:D

PROBLEM 7:

The sum of HCF and LCM of two numbers is 403 and their LCM is 12 times their HCF. If one number is 93, then find the another number.

A. 115
B. 122
C. 124
D. 138

ANS:**C**

PROBLEM 8:

The LCM of two numbers is 20 times of their HCF and (LCM + HCF) = 2520. If one number is 480, what will be the triple of another number?

A. 1200
B. 1500
C. 2100
D. 1800

ANS:**D**

PROBLEM 9:

Find the greatest number that divides 130, 305 and 245 leaving remainders 6, 9 and 17, respectively?

A. 4
B. 5
C. 14
D. 24

ANS:**A**

PROBLEM 10:

Find the least number which when divided by 16, 18 and 20 leaves a remainder 4 in each case, but is completely divisible by 7.

A. 2884
B. 2256
C. 865
D. 3332

ANS:**A**

PROBLEM 11:

The LCM of two numbers is 2376 while their HCF is 33. If one of the number is 297, then the other number is

A. 216
B. 264
C. 642
D. 792

ANS:B

PROBLEM 12:

The HCF and LCM of two numbers are 13 and 1989, respectively. If one of the numbers is 117, then determine the other

A. 121
B. 131
C. 221
D. 231

ANS:C

PROBLEM 13:

The product of two number is 7168 and their H.C.F. is 16. find the sum of all possible numbers ?

A. 640
B. 860
C. 460
D. Data inadequate

ANS:**A**

PROBLEM 14:

The Sum of two number is 1215 and their H.C.F is 81, how many pairs of such number can be formed ? Find them ?

A. 1
B. 2
C. 3
D. 4

ANS:**D**

PROBLEM 15:

What is the HCF of 8 ($N^5 - N^3 + N$) and 28 ($N^6 + 1$)?

A. 4 ($N^4 - N^2 + 1$)
B. $N^3 - N + 4N^2$
C. $N^3 - N + 3N^2$
D. None of these

ANS:**A**

PROBLEM 16:

The HCF of $(x^4 - y^4)$ and $(x^6 - y^6)$ is

A. $x^2 - y^2$
B. $x - y$
C. $x^3 - y^3$
D. $x^4 - y^4$

ANS:**A**

PROBLEM 17:

The HCF of $(x^3 - y^2 - 2x)$ and $(x^3 + x^2)$ is

A. $x^3 - x^2 - 2x$
B. $x^2 + x$
C. $x^4 - x^3 - 2x^2$
D. $x - 2$

ANS:**C**

PROBLEM 18:

The HCF and LCM of two number are 21 and 4641, respectively. If one of the numbers lies between 200 and 300, then find the two numbers.

A. 273, 363
B. 273, 359
C. 273, 361
D. 273, 357

ANS:**D**

PROBLEM 19:

30 pineapple trees, 45 orange tree and 60 mango trees have to be planted in rows such that each row contains the same number of trees of one variety only. What is minimum number of row in which the trees may be planted ?

A. 10
B. 15
C. 25
D. 9

ANS:**D**

PROBLEM 20:

If HCF of $x^3 - 10m^2 + 31x - 30m$ and $x^2 - 8mx + 15$ is a linear polynomial, then what is the value of m ?

A. 2
B. 3
C. 1
D. 4

ANS:**A**