H.C.F & L.C.M. - Online Quiz

Following quiz provides Multiple Choice Questions (MCQs) related to **H.C.F & L.C.M.**. You will have to read all the given answers and click over the correct answer. If you are not sure about the answer then you can check the answer using **Show Answer** button. You can use **Next Quiz** button to check new set of questions in the quiz.

Q 1 - Find the L.C.M of 72, 108, and 2100.

A - 37500

B - 37000

C - 37800

D - 37850

Answer : C

Explanation

$72 = 2^3 \times 3^2$
$108 = 2^2 \times 3^3$
$2100 = 2^2 \times 5^2 \times 3 \times 7$
Therefore L.C.M = $2^3 \times 3^3 \times 5^2 = 37800$

Show Answer

Q 2 - The greatest number which on dividing 1657 and 2037 leaves remainders 6 and 5 respectively, is?

A - 123

B - 127

C - 152

D - 125

Answer : B

Explanation

Required number = H.C.F of (1657 - 6) = (2037 - 5)
= H.C.F of 1651 and 2032 = 127.

Hide Answer

Q 3 - The least number, which when divided by 48, 60, 72, 108 and 140 leaves 38, 50, 62, 98 and 130 as remainders respectively, is?

A - 11115

B - 15110

C - 15120

D - 15210

Answer : B

Explanation

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Here (48 - 38) = 10, (60 - 50) = 10, (72 - 62) = 10, (108 - 98) = 10 & (140 - 130) = 10
Therefore Required number = (L.C.M  of 48,60,72,108,140) - 10 = 15120 - 10 =15110.
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Hide Answer

Q 4 - The H.C.F and L.C.M of the two numbers are 84 and 21 respectively. If the ratio of the two numbers is 1:4, then the larger number of the twi is?

A - 84

B - 48

C - 58

D - 80

Answer : A

Explanation

Let the number be z and 4z. Then z x 4z = 84 x 21

$= z^2 = {}^{84 \times 21}/_{4} = z = 21$

Hence larger number is 4z = 4 x 21 = 84

Hide Answer

Q 5 - The maximum number of students among them 1001 pens and 910 pencils can be distributed in such a way that each student gets the same number of pens and pencils?

A - 91

B - 910

C - 1001

D - 1911

Answer : B

Explanation

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Required number of students = H.C.F of 1001 and 910 = 91.
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Hide Answer

Q 6 - Find the greatest number which can divide 103 and 199 leaving the same remainder 7 in each case.

A - 211

B - 89

C - 206

D - 96

Answer : D

Explanation

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Required number = H.C.F. of [(103-7) and (199-7)]
= H.C.F. of (96 and 192)
= H.C.F. of (25*3 and 26*3)
= H.C.F. of (25*3 and 25*3*2) = 25*3=96
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Hide Answer

Q 7 - H.C.F. of two numbers is 12 and their L.C.M is 72. If the difference between the numbers is 24, their sum is

A - 36

B - 42

C - 48

D - 54

Answer : C

Explanation

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Let the numbers be X & Y
HCF*LCM=Product of two numbers =XY=12x72=864
XY=864 -------- (1)
Given X-Y=24   -------- (2)
On solving 1 & 2 we get X=12 Y=36
Their sum = 12+36=48
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Hide Answer

Q 8 - If the sum of the H.C.F and L.C.F of two numbers is 680 and their L.C.M is 84 times the H.C.F. If one of the numbers is 56, the other number is:

A - 8

B - 12

C - 84

D - 96

Answer : D

Explanation

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h+L = 680 and L = 84 h
∴ h+84 h = 680 ⇒ 85h ⇒680 ⇒h= 8
∴ L= (84*8) = 672
Now, h*L =56*x  ⇒ 8* 672=  56*x⇒ x  = (8*672)/56  = 96
∴ The other number is  96.
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Hide Answer

Q 9 - Numbers which have 16 as their H.C.F and 136 as their L.C.M , we can definitely say that:

A - only one such pair exists

B - only two such pairs exist.

C - many such pairs exist

D - no such a pair exists

Answer : D

Explanation

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H.C.F is always a factor of L.C.M
Since 16 does not divide 136 , so, no such pair exists.
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Hide Answer

Q 10 - Find the largest divisor of 210, 315, 147 and 168.

A - 3

B - 7

C - 21

D - 44

Answer : C

Explanation

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210  = 2*3*5*7,   315 =3*5*3*7 , 147 = 7*7*3  , 168 = 2*2*2*3*7
Required number = H.C.F of given  numbers=  (3*7) =21
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Show Answer