CAT Questions | CAT Number Systems Questions

CAT Quantitative Aptitude | CAT Number theory: HCF and LCM problems

A CAT Number systems question that appears in the Quantitative Aptitude section of the CAT Exam broadly tests an aspirant on the concepts - factors, HCF and LCM, base system & remainders of the above mentioned concepts. In CAT Exam, one can generally expect to get 1~2 questions from CAT Number Systems: HCF-LCM. In multiple places, extension of HCF and LCM concepts are tested by CAT Exam and one needs to understand HCF-LCM to be able to answer the same. CAT Number theory is an important topic with lots of weightage in the CAT Exam. Make use of 2IIMs Free CAT Questions, provided with detailed solutions and Video explanations to obtain a wonderful CAT score. If you would like to take these questions as a Quiz, head on here to take these questions in a test format, absolutely free.

01. CAT Number Theory: - HCF LCM

How many pairs of integers (x, y) exist such that the product of x, y and HCF (x, y) = 1080?

A. 8

B. 7

C. 9

D. 12

Correct Answer

Explanation

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02. CAT Number Theory - Remainders LCM

Find the smallest number that leaves a remainder of 4 on division by 5, 5 on division by 6, 6 on division by 7, 7 on division by 8 and 8 on division by 9?

A. 2519

B. 5039

C. 1079

D. 979

Correct Answer

Explanation

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03. CAT HCF LCM - Theory

There are three numbers a,b, c such that HCF (a, b) = l, HCF (b, c) = m and HCF (c, a) = n. HCF (l, m) = HCF (l, n) = HCF (n, m) = 1. Find LCM of a, b, c. (The answer can be "This cannot be determined").

Correct Answer

Explanation

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04. CAT HCF basics

How many pairs of positive integers x, y exist such that HCF of x, y = 35 and sum of x and y = 1085?

A. 12

B. 8

C. 15

D. 30

Correct Answer

Explanation

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05. CAT HCF-LCM

How many pairs of positive integers x, y exist such that HCF (x, y) + LCM (x, y) = 91?

A. 10

B. 8

C. 6

D. 7

Correct Answer

Explanation

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06. CAT HCF: Basics

Sum of two numbers x, y = 1050. What is the maximum value of the HCF between x and y?

A. 350

B. 700

C. 1050

Correct Answer

Explanation

D. 525

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07. CAT Number System: HCF basics

The sum of two non co–prime numbers added to their HCF gives us 91. How many such pairs are possible?

A. 2

B. 4

C. 3

D. 6

Correct Answer

Explanation

Video Solution

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08. CAT Number System: HCF LCM basics

There are 2 numbers such that a > b, HCF (a, b) = h and LCM (a, b) = l. What is the LCM of a – b and b?

A. l

B. (a - b) b

C. (a - b) b / h

D. h (a - b)

Correct Answer

Explanation

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09. CAT Number Systems: No of sweet boxes

6 different sweet varieties of count 32, 216, 136, 88, 184, 120 were ordered for a particular occasion. They need to be packed in such a way that each box has the same variety of sweet

and the number of sweets in each box is also the same. What is the minimum number of boxes required to pack?

A. 129

B. 64

C. 48

D. 97

Correct Answer

Explanation

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10. CAT Number Systems: Minimum number of students

In a large school auditorium, the students are made to sit to watch the programmes. If the teachers make a row of students of 16 each, there will be 12 students left. If they make rows of 24 each, then there will be 20 students left, if they make rows of 25 each, there will be 21 students left and if they make rows of 30 each, there will be 26 students left. What is the minimum number of students present in the school?

A. 1216

B. 1784

C. 1196

D. 2396

Correct Answer

Explanation

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11. CAT Number Systems: Sum of the digits

LCM of 2 natural numbers p and q where p > q is 935. What is the maximum possible sum of the digits of q?

A. 1

B. 16

C. 8

D. 2

Correct Answer

Explanation

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12. CAT Number Systems: Number of Carpenters

4 logs of woods of lengths 5 1/4 m, 1 13/15 m, 3 1/2 m and 4 9/10 m are cut into small pieces, all of which have equal length. Each piece of wood is as lengthy as possible. Each cut piece is given to a set of 2 carpenters to work on something. How many carpenters are there in all to work?

A. 148

B. 210

C. 332

D. 266

Correct Answer

Explanation

The Questions that follow, are from actual IPMAT papers. If you wish to take them separately or plan to solve actual IPMAT papers at a later point in time, It would be a good idea to stop here.

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01. IPMAT 2020 Sample Paper - IPM Rohtak Quants

Find the HCF of $\frac{2}{3}, \frac{4}{6}, \frac{8}{27}$

A. $\frac{2}{27}$

B. $\frac{8}{3}$

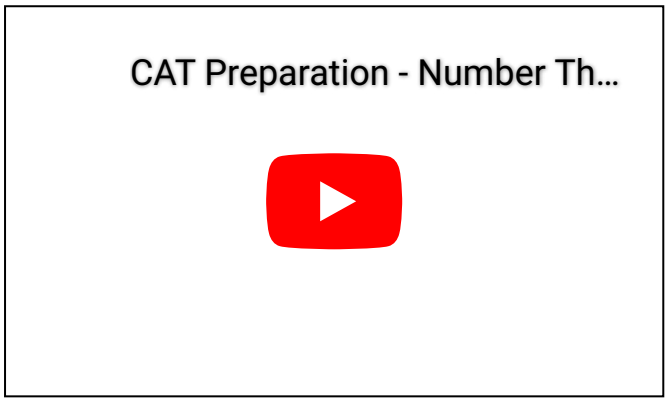
C. $\frac{2}{3}$

D. $\frac{8}{27}$

Correct Answer

Explanation

CAT Online Coaching | CAT Number Systems questions Videos On YouTube



1. HCF Basics | CAT Number Systems | CAT Coaching Online

Other useful sources for Number System Questions | Number Theory HCF and LCM Sample Questions