

# *SuperCon 2004*

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## SUPER COMPUTER CONTEST 2004 FOR HIGH SCHOOL STUDENTS

### Entry Exercise: "SuperCon Number"

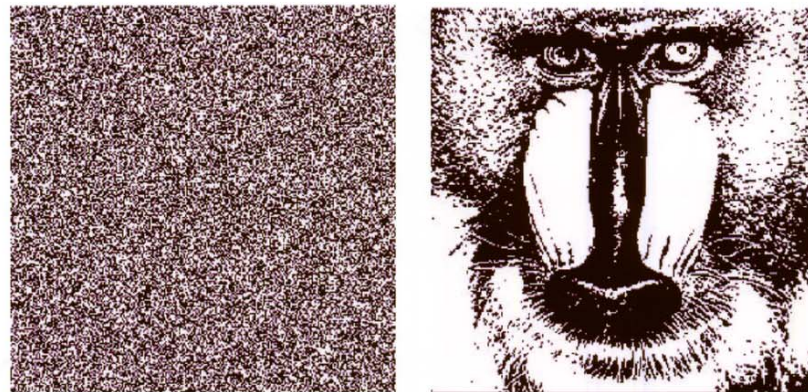
We define a 'SuperCon number', which is factorized into twelve prime numbers such that

$$3,750,000 = 2^4 * 3 * 5^7.$$

Write a program which finds the first 2004th SuperCon number starting at 10,000,000.

### Contest Exercise: "Decipher Encrypted Image"

Write a program that computes the original image or the one that is close to it based on given two files eimagefile and hintfile, the former for an encrypted image and the latter for hints. The program must output a restored image within three minutes. A given encrypted digital image is consisting of 256 x 256 black(0)/white(1) pixels encrypted one by one,



The Contest was performed with the following hardware/software conditions:  
SGI Origin2000(400MHz, 256 processors, 256GB memory)  
64 processors and 32GB memory are available for contestants

### Results:

**Description ratio is  
99.92%**



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**We are waiting for your challenge next year 2005.**

For more information or comments, send an e-mail to: [supercon@gsic.titech.ac.jp](mailto:supercon@gsic.titech.ac.jp).



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