

CUBEFR - Cube Free Numbers

[#number-theory \(/problems/tag/number-theory\)](/problems/tag/number-theory)

A cube free number is a number whose none of the divisor is a cube number (A cube number is a cube of a integer like $8 (2 * 2 * 2)$, $27 (3 * 3 * 3)$). So cube free numbers are 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18 etc (we will consider 1 as cube free). 8, 16, 24, 27, 32 etc are not cube free number. So the position of 1 among the cube free numbers is 1, position of 2 is 2, 3 is 3 and position of 10 is 9. Given a positive number you have to say if its a cube free number and if yes then tell its position among cube free numbers.

Input

First line of the test case will be the number of test case T ($1 \leq T \leq 100000$). Then T lines follows. On each line you will find a integer number n ($1 \leq n \leq 1000000$).

Output

For each input line, print a line containing "Case I : ", where I is the test case number. Then if it is not a cube free number then print "Not Cube Free". Otherwise print its position among the cube free numbers.


Example

Sample Input:

```
10
1
2
3
4
5
6
7
8
9
10
```

Sample Output:

```
Case 1: 1
Case 2: 2
Case 3: 3
Case 4: 4
Case 5: 5
Case 6: 6
Case 7: 7
Case 8: Not Cube Free
Case 9: 8
Case 10: 9
```

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<	Previous	1	2 (/problems/CUBEFR/cstart=10)
3 (/problems/CUBEFR/cstart=20)	4 (/problems/CUBEFR/cstart=30)		
5 (/problems/CUBEFR/cstart=40)	6 (/problems/CUBEFR/cstart=50)		
7 (/problems/CUBEFR/cstart=60)	8 (/problems/CUBEFR/cstart=70)		
Next (/problems/CUBEFR/cstart=10)		> (/problems/CUBEFR/cstart=70)	



anurag_tangri (/users/anurag_tangri): 2017-04-21 15:36:05
many WA's and finally AC:)
simple sieve tho !



newbie_127 (/users/newbie_127): 2017-03-30 19:03:55
Be careful with counter !! Cost me 4 WA's .



nilabja16180 (/users/nilabja16180): 2017-03-22 21:34:44
EASY! AC IN ONE GO!



kass_97 (/users/kass_97): 2016-12-31 09:52:23
Simple sieve, AC at once



kira28 (/users/kira28): 2016-12-28 13:23:52
another sieve ques :/



madhavgaba (/users/madhavgaba): 2016-12-24 05:24:35
modify sieve and precompute.....AC in third go;)



surajmall (/users/surajmall): 2016-10-23 11:13:20
seieve and some smart work needed



kmrrv (/users/kmrrv): 2016-09-15 19:20:27
beware of output format



karan_batra (/users/karan_batra): 2016-08-28 11:13:57
AC in one go :D. Simple modification of sieve.




agralalarocks (/users/agralalarocks): 2016-07-26 22:49:19
Could someone please take a look at my code its VAKNig on ideone

🚀 Submit solution! (/submit/CUBEFR/)

Added by:	Muhammad Ridowan (/users/ridowan007)
Date:	2011-06-14
Time limit:	0.100s-0.939s
Source limit:	50000B
Memory limit:	1536MB
Cluster:	Cube (Intel G860) (/clusters/)
Languages:	All except: ASM64
Resource:	Own. For alternate thanks Sayef Azad Sakin

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