Problem F
Reverse Prime

Input: Standard Input
Output: Standard Output

There are a few 7 digit positive numbers whose reverse number is a prime number and less than **10^6**. For example: 1000070, 1000090 and 1000240 are first few reverse prime numbers because all of the numbers are 7 digit numbers whose reverse number is a prime number and less than 10^6. You have to find out all the 7 digit reverse prime numbers and also it's number of prime factors. Prime factors of a positive integer are the prime numbers that divide into that integer exactly, without leaving a remainder. For example, prime factors of 24 are 2, 2, 2 and 3.

In this problem, you'll encounter 2 types of input –

Query:
This type of input will be formatted like this – **"q *i*"**. For this input, you have to calculate the cumulative summation of the number of prime factors of reverse prime numbers from 0-th to *i*-th index.

Deletion:
This type of input will be formatted like this – **"d *reverse_prime*"**. For this input, you have to delete *reverse_prime* from the set and update your summation. No output is required in such cases.

It is guaranteed that *i* will be a valid index and *reverse_prime* will be a valid 7 digit reverse prime number. It is also guaranteed that no two *reverse_prime* will be same.

There will be at most **71000** query lines and **3500** deletion lines in the data set. The program will terminated by EOF.

Sample Input	Output for Sample Input
q 0	4
q 1	10
q 2	16
d 1000070	6
d 1000090	3
q 0	7
d 1000240	
q 0	
q 1	