

Strange But Easy

Hari is very bright student and always solves mathematical problems and series . Lalit (who jealous of him) gives him a series to find the logic and find as many terms as Lalit wants. Hari not getting the logic and wants you to help him.

Your task is so simple ,you have to find the terms of the series . Few terms of the series are 11 90 346 936.....

Isn't it too irritating to do that....?

yea it is , So look at Hint and Do it.

Hint : This is Actually not Hintits the answer ... The series is formed by Prime Number Combinations . For eg: 1st term $(2*3)+5=11$, 2nd term $(7*11)+13=90$ so on. Its too easy now for you. Just Basic to check your programming skill :P

Input

First line of input is 't' - Test cases.In each of the next t lines there is only one Integer n($n < 10000$) .

Output

Output is the n term of the series

Warning:Be Carefull with large output data.

Example

Input:

3

1

2

3

Output:

11

11 90

11 90 346