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Pair of primes

Problem Code: **PAIRPR1**

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Pair of Primes

Given an integer n (between 1 and 10^4) find two prime numbers (possibly same) p_1, p_2 such that $p_1 + p_2 = n$

In case there are multiple solutions, you can output **any** of them.

If there is no solution, then print -1 -1 instead.

Input

First line contains an integer T , denoting the number of testcases

First and only line of each testcase contains a single integer n

Output

For each testcase print two space separated primes, p_1, p_2 such that $p_1 + p_2 = n$

Constraints

$$1 \leq T \leq 10^4$$

$$1 \leq \sum_{\text{over all testcases}} n \leq 10^4$$

Sample Input

```
3
4
5
1
```

Sample Output

```
2 2
2 3
-1 -1
```

Explanation

2, 3 are both primes numbers and $2 + 2 = 4$, $2 + 3 = 5$

1 is smaller than every prime number, and so there are no solution in this case, so we have to print -1 -1 instead.

Author: [srikanth_adm \(/users/srikanth_adm/\)](/users/srikanth_adm/)

Date Added: 5-03-2021

Submission Ends In

| | | | |
|------|-----|-----|-----|
| 1 | 2 | 9 | 19 |
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My Solutions

(/MITSAP0006/status/PAIRPR1) (/MITSAP0006/status/)

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| | |
|---------------|---|
| Time Limit: | 1 secs |
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| Languages: | PYTH 3.6, JAVA, C, CPP14, PYTH, PYP3, CS2, ADA, PYPY, TEXT, PAS fpc, NODEJS, RUBY, PHP, GO, HASK, TCL, kotlin, PERL, SCALA, LUA, BASH, JS, rust, LISP sbcl, PAS gpc, BF, CLOJ, R, D, CAML, swift, FORT, ASM, FS, WSPC, LISP clisp, SQL, SCM guile, PERL6, ERL, CLPS, PRLG, SQLQ, ICK, NICE, ICON, COB, SCM chicken, PIKE, SCM qobi, ST, NEM |

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