

Python Templates

Use these templates if Python is allowed.

Basic input

```
n = int(input())
print(n)
```

Array input

```
n = int(input())
a = list(map(int, input().split()))
```

Multiple test cases

```
t = int(input())
for _ in range(t):
    n = int(input())
    a = list(map(int, input().split()))
```

String input

Single word:

```
s = input().strip()
```

Full line:

```
s = input()
```

Prime check

```
def is_prime(n):
    if n < 2:
        return False
    if n == 2:
        return True
    if n % 2 == 0:
        return False
```

```
i = 3
while i * i <= n:
    if n % i == 0:
        return False
    i += 2
return True
```

GCD and LCM

```
def gcd(a, b):
    while b:
        a, b = b, a % b
    return a

def lcm(a, b):
    return a // gcd(a, b) * b
```

Frequency

```
freq = {}
for x in a:
    freq[x] = freq.get(x, 0) + 1
```

Or:

```
from collections import Counter
freq = Counter(a)
```

Reverse string

```
rev = s[::-1]
```

Sort

```
a.sort()
```

Two pointers

```
a.sort()
l, r = 0, len(a) - 1
while l < r:
```

```
total = a[l] + a[r]
if total == target:
    print("YES")
    break
elif total < target:
    l += 1
else:
    r -= 1
else:
    print("NO")
```