print the Fibonacci series up to n term.

input

```
9
```

output

```
1 1 2 3 5 8 13 21 34 55
```

```c
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);

    int a = 1, b = 1;
    int c = a + b;

    printf("%d ", b);
    for (int i = 0; i < n; ++i) {
        printf("%d ", b);
        a = b;
        b = c;
        c = a + b;
    }
    printf("\n");
    return 0;
}
```

```
9
1 1 2 3 5 8 13 21 34 55
```

check whether the entered number is prime or not.

input

```
69
```

output

```
not prime
```

```c
#include <stdio.h>

int main() {
```

```
    int num;
    scanf("%d", &num);

    int count = 0;
    for (int i = 1; i < num; ++i) {
        if (num % i == 0)
            count++;
    }
    if (count > 1)
        printf("not prime\n");
    else
        printf("prime\n");
    return 0;
}
```

```
69
not prime
```

Take input of 3 digit number and check whether it is an Armstrong number and Palindrome number or not.

input

```
13
```

output

```
Not a armstrong number
Not a palindrome number
```

```
 #include <math.h>
#include <stdio.h>

int main() {
    int digit;
    int rev_num = 0;
    int palindrome_sum = 0;
    int num;
    scanf("%d", &num);

    int n = num;
    while (n > 0) {
        digit = n % 10;
        rev_num = rev_num * 10 + digit;
        palindrome_sum += pow(digit, 3);
```

```
        n /= 10;
    }

    if (palindrome_sum != num)
        printf("Not a armstrong num\n");
    else
        printf("A armstrong num\n");

    if (rev_num != num)
        printf("Not a palindrome num\n");
    else
        printf("A palindrome num\n");
    return 0;
}
```

```
13
Not a armstrong num
Not a palindrome num
```

find the sum of following series 1-X1/1! + X2/2! - .....+ Xn /n!

input

```
1
3
```

output

```
0.5
```

```
 #include <stdio.h>

int main() {
    int num;
    int end;
    scanf("%d%d", &num, &end);
    int fact = 1;

    float base_w_power = num;
    float sum = 1;
    for (int i = 1; i < end; ++i) {
        fact *= i;
        base_w_power *= num;
        if (i % 2 == 0) {
            sum += base_w_power / fact;
```

```
        } else {
            sum -= base_w_power / fact;
        }
    }
    printf("%f\n", sum);
    return 0;
}
```

```
1
3
0.500000
```

print the entire prime no between 1 and 300.

input

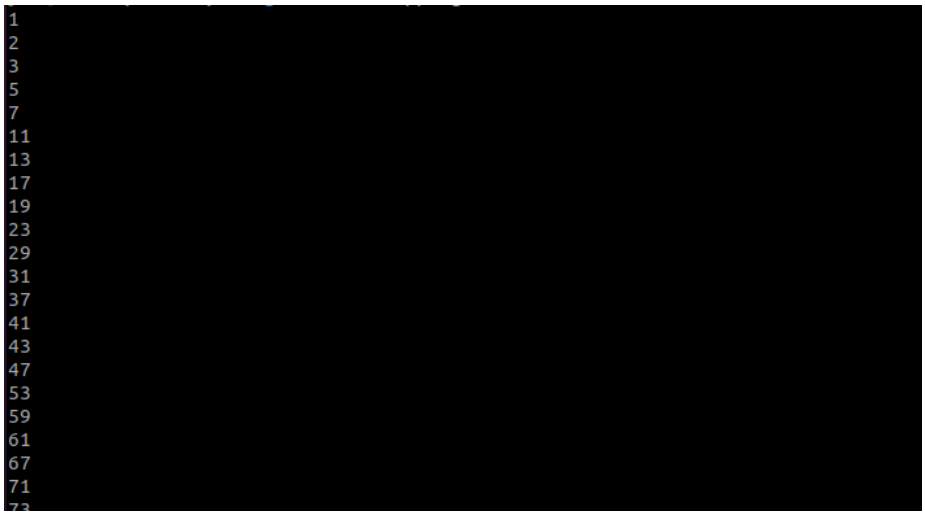
```
None
```

output

```
1
1
2
..
```

```
#include <stdio.h>

int main() {
    int count;
    for (int i = 1; i < 300; ++i) {
        count = 0;
        for (int j = 2; j < i; ++j) {
            if (i % j == 0)
                ++count;
        }
        if (count == 0)
            printf("%d\n", i);
    }
    return 0;
}
```



draw the following figure

input

None

output

3 2 1
2 1
1

```
int main() {
    for (int i = 3; i > 0; --i) {
        for (int j = i; j > 0; --j) {
            printf("%d ", j);
        }
        printf("\n");
    }
    return 0;
}
```