Programming Task-3

Q1- Polar Coordinates

In [1]:

```
import cmath
com=complex(input().strip())
res=cmath.polar(com)
print(res[0])
print(res[1])
```

```
1+2j
2.23606797749979
1.1071487177940904
```

Q2- Find angle MBC

In [2]:

```
import math
ab=int(input())
bc=int(input())
tita=(math.atan(ab/bc))
degree=round(math.degrees(tita))
print(degree,chr(176),sep = '')
```

```
10
10
45°
```

Q3- Triangle Quest 2

In [3]:

```
for i in range(1,int(input())+1):
    print (((10 ** i) // 9) ** 2)
```

```
4
1
121
12321
1234321
```

Q4- Mov Divmod

In [4]:

```
a=int(input())
b=int(input())
print(a//b)
print(a%b)
print(divmod(a,b))
```

```
177
10
17
7
(17, 7)
```

Q5- Mod Power

In [5]:

```
a=int(input())
b=int(input())
m=int(input())
print(pow(a,b))
print(pow(a,b,m))
```

```
3
4
5
81
1
```

Q6- Integers Come in All Sizes

In [6]:

```
a=int(input())
b=int(input())
c=int(input())
d=int(input())
print(pow(a,b) + pow(c,d))
```

```
9
4
6
8
1686177
```

Q7- Triangle Quest

In [7]:

```
for i in range(1,int(input())):
    print(pow(10,i)//9*i)
```

```
4
1
22
333
```

Thanks