**TASK-3**

1. **POLAR COORDINATES PROGRAM**

**import** cmath

number=**complex**(**input**())

z=**complex**(number)

**print**(cmath.polar(z)[0])

**print**(cmath.polar(z)[1])

1. **FINDING ANGLE PROGRAM**

**import** math

AB=**int**(**input**())

BC=**int**(**input**())

hypo=math.sqrt(AB\*\*2+BC\*\*2)

hypo=hypo/2.0

adj=BC/2.0

final=**int**(**round**(math.degrees(math.acos(adj/hypo))))

final=**str**(final)

**print**(final+**chr**(176))

1. **RIGHT ANGLE TRAINGLE PATTERN PRORAM**

**for** i **in** **range**(1,**int**(**input**())+1):

**print**(((10\*\*i-1)//(9))\*\*2)

1. **MOD DIV MOD PROGRAM**

a=**int**(**input**())

b=**int**(**input**())

**print**(a//b)

**print**(a%b)

**print**(**divmod**(a,b))

1. **POWER-MOD POWER PROGRAM**

a=**int**(**input**())

b=**int**(**input**())

m=**int**(**input**())

**print**(**pow**(a,b))

**print**(**pow**(a,b,m))

1. **INTEGERS COME IN ALL SIZES PROGRAM**

a=**int**(**input**())

b=**int**(**input**())

c=**int**(**input**())

d=**int**(**input**())

**print**((a\*\*b)+(c\*\*d))

1. **PATTERN PROGRAM**

**for** i **in** **range**(1,**int**(**input**())):

**print**(**int**(i\*10\*\*i/9))