In [1]:
```python
import math
n=int(input("n = "))
g=int(input("g = "))
for i in range(2,n):
    if(n%i==0):
        print("Invalid")
        break
for i in range(2,g):
    if(g%i==0):
        print("Invalid")
        break

x=int(input("No. selected by Alice: "))
y=int(input("No. selected by Bob: "))

A=(math.pow(g,x))%n
B=(math.pow(g,y))%n

print("\nA=",A)
print("B=",B)

k1=(math.pow(B,x))%n
k2=(math.pow(A,y))%n
print("\nk1=",k1)
print("k2=",k2)
if(k1==k2):
    print("Algo is correct")
else:
    print("Algo is wrong")
```

```
n = 6
g = 5
Invalid
No. selected by Alice: 3
No. selected by Bob: 2

A= 5.0
B= 1.0

k1= 1.0
k2= 1.0
Algo is correct
```

In [ ]: