# Global variables (Both will be Public)

Q = 7 #Q is prime no.

Alpha=5 #Alpha is primitive root of Q.

# Private keys (X denotes private Key, Y denotes Public Key)

Xa = 3

Xb = 4

# Public keys (So, Q, Alpha, Ya, Yb will be public. While Xa known to A only & Xb known to B only. )

Ya = pow(Alpha, Xa) % Q

Yb = pow(Alpha, Ya) % Q

#Calculate Keys

Ka= pow(Yb, Xa)% Q

Kb= pow(Ya, Xb) % Q

print(Ka)

print(Kb)

if Ka== Kb:

print("Agree for communication")

else:

print("Not Agree for communication")