import pandas as pd  
  
def multiplicative\_inverse(a,n):  
 r1,r2,t1,t2 = a,n,0,1  
 arrays = [[] for \_ in range(7)]  
   
 while(r2>0):  
 q = r1//r2  
 arrays[0].append(q), arrays[1].append(r1), arrays[2].append(r2)  
   
 r = r1 - q\*r2  
 r1,r2 = r2,r  
 arrays[3].append(r), arrays[4].append(t1), arrays[5].append(t2)  
   
 t = t1 - q\*t2  
 t1,t2 = t2,t  
 arrays[6].append(t)  
   
 b\_inverse = t1 if r1 == 1 else False  
   
 arrays[0].append(None), arrays[1].append(r1), arrays[2].append(r2)  
 arrays[3].append(None), arrays[4].append(t1), arrays[5].append(t2)  
 arrays[6].append(None)  
   
 table = pd.DataFrame({  
 "q": arrays[0],  
 "r1": arrays[1],  
 "r2": arrays[2],  
 "r": arrays[3],  
 "t1": arrays[4],  
 "t2": arrays[5],  
 "t": arrays[6]  
 })  
   
 return b\_inverse,table   
  
a,n = map(int,input("Please enter the value of two numbers to find their multiplicative inverse: ").strip().split(" "))  
  
b\_inverse,table = multiplicative\_inverse(a,n)  
  
if not b\_inverse:  
 print("Inverse doesn't exist")  
else:  
 print(f"Inverse of b = {b\_inverse+n if b\_inverse<0 else b\_inverse}")  
  
table