1. Python Program for Extended Euclidean algorithms

**Code:**

def gcdExtended(a, b):

if a == 0 :

return b,0,1

gcd,x1,y1 = gcdExtended(b%a, a)

x = y1 - (b//a) \* x1

y = x1

return gcd,x,y

a=int(input('Enter a: '))

b=int(input('Enter b: '))

g, x, y = gcdExtended(a, b)

print("gcd(", a , "," , b, ") = ", g)

**Output:**

