# Artificial Intelligence Lab

## Exp1- Camel Banana Problem

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**CODE:**

```
dp = [[-1 for i in range(3001)] for j in range(1001)]

def recBananaCnt(A, B, C):

    if (B <= A):
        return 0

    if (B <= C):
        return B - A

    if (A == 0):
        return B

    if (dp[A][B] != -1):
        return dp[A][B]

    maxCount = -2**32

    tripCount = ((2 * B) // C) - 1 if(B % C == 0 ) else ((2 * B) // C) + 1

    for i in range(1,A+1):
```

```
        curCount = recBananaCnt(A - i, B - tripCount * i, C)

        if (curCount > maxCount):
            maxCount = curCount

            dp[A][B] = maxCount

    return maxCount

def maxBananaCnt(A, B, C):

    return recBananaCnt(A, B, C)

# Driver Code
A = 1000
B = 3000
C = 1000
print(maxBananaCnt(A, B, C))
```

**OUTPUT:**