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**AI Lab Experiment 1**

**Problem Description**

A person has 3000 bananas and a camel. The person wants to transport the maximum number of bananas to a destination which is 1000 KMs away, using only the camel as a mode of transportation. The camel cannot carry more than 1000 bananas at a time and eats a banana every km it travels. What is the maximum number of bananas that can be transferred to the destination using only camel (no other mode of transportation is allowed) .

**Code (C++)**

#include <bits/stdc++.h>

using namespace std;

int main(){

int distance=3000, bpk=1,total\_ban=3000,max\_ban=1000,left\_dist;

int result=0;

int n=distance/max\_ban,l=0,len=0;

for(int i=0;i<n-1;i++){

l=(((2\*n)-1)-(2\*i));

len+=max\_ban/l;

result = 1000-len;

}

cout<<1000-result<<” banana”;

return 0;

}

**Output**

533 banana

**Q1: What is toy problem?**

Toy problems are simplified challenges used in the early stage of AI development. Typically, the complexities of the real world are omitted so the main line of logic or learning can be developed before extending this to cope with real world issues.

**Q2. How many approaches do you have for solving the toy problem which you have taken?**

Iterative approach.

**Q3. Real life application.**

If a car has to travel any specific amount of kms and it has some specific amount of fuel. Then we can find out how much fuel will be left at end of the journey.

**Github Link** : https://github.com/noctiv