**Problem**: <http://codeforces.com/problemset/problem/189/A>

**Recurrence Relations**:

declare d with n+1 elements

initialize d(i) = -1 for all i from 0 to n

d(0) = 0

d(i) = max(max(d(i), d(i-a)+1), max(d(i-b)+1, d(i-c)+1))

if i-a >=0 and i-b >= 0 and i-c >= 0 and d(i-a) != -1 and d(i-b) != -1 and d(i-c) != -1

d(n) is the answer

**Problem**: <http://codeforces.com/problemset/problem/365/B>

**Recurrence Relations**:

declare length with n+1 elements

initialize length(i) = 2 for all i from 0 to n

length(0) = 1

length(i) = length(i-1) + 1

if a(i-1) + a(i-2) == a(i)

max(length(0), length(1), …, length(n)) is the answer

**Problem**: <http://codeforces.com/problemset/problem/253/B>

**Recurrence Relations**:

declare dp with 5001 elements

for each input a, dp(a) = 1

dp(i) = dp(i) + dp(i-1) for all i from 1 to 5000

ans = min(n, n-dp(2\*i)-dp(i-1)) for all i from 1 to 2500

ans is the answer