#include <stdio.h>

//Cach 1: bottom up

int fibo(int n) {

int \* f = new int[n+2];

f[1] = 1;

f[2] = 1;

f[3] = 2;

for (int k = 2; k <= n/2; k++) {

f[2\*k] = 2 \* f[k] \* f[k+1] - f[k]\*f[k];

f[2\*k+1] = f[k+1] \* f[k+1] + f[k]\*f[k];

}

int answer = f[n];

delete [] f;

return answer;

}

//Cach 2: top-down

#define MAXN 100

int f[MAXN];

int fibo2(int n) {

if (f[n] != 0) return f[n];

if (n==1)

f[n] = 1;

else if (n==2)

f[n] = 1;

else if (n==3)

f[n] = 2;

else if (n%2 == 0) {

int fk = fibo2(n/2);

int fk1 = fibo2(n/2+1);

f[n] = 2\*fk\*fk1 - fk\*fk;

}

else {

int fk = fibo2((n-1)/2);

int fk1 = fibo2((n-1)/2+1);

f[n] = fk1\*fk1 + fk\*fk;

}

return f[n];

}

//Phan chuong trinh chinh (khong can viet khi thi)

int main() {

int n;

scanf("%d",&n);

printf("%d %d\n",fibo(n),fibo2(n));

}