import java.util.\*;

class Fact {

int n, res = 1;

void getData(int num) {

n = num;

}

int rec(int n) {

if (n >= 1) {

return n \* rec(n - 1);

} else {

return 1;

}

}

int ite(int n) {

while (n >= 1) {

res = res \* n;

n = n - 1;

}

return res;

}

public static void main(String args[]) {

Scanner in = new Scanner(System.in);

int num;

System.out.println("Enter a number");

num = in.nextInt();

Fact ob = new Fact();

ob.getData(num);

System.out.println("Factorial using recursion = " + ob.rec(ob.n));

System.out.println("Factorial using iteration = " + ob.ite(ob.n));

}

}