program 7

public static void main(String[] args) {

Scanner stdIn = new Scanner (System.in);

Scanner stdIn2 = new Scanner (System.in);

long n;

long r;

System.out.print("Please input n: ");

n = stdIn.nextInt();

System.out.print("Please input r/k: ");

r = stdIn2.nextInt();

System.out.println(factorial(n));

permutation(n, r);

System.out.println("");

combination(n, r);

}

public static long factorial(long n){

if(n == 0){

return 1;

}

else{

return (n \* factorial(n-1));

}

}

public static void permutation(long n, long r){

System.out.println("Factorial " + n + "= " + factorial(n));

System.out.println("Factorial " + r + "= " + factorial(r));

System.out.println(n + " P " + r + "= " + factorial(n)/factorial(n-r));

}

public static void combination(long n, long r){

System.out.println(n + " C " + r + "= " + factorial(n)/(factorial(r) \* factorial(n - r)));

}

// TODO code application logic here

}