```c
#include <stdio.h>

int main(){
    int N, k, i, j;
    long sum, term;
    scanf("%d %d", &N, &k);

    if(N < 0 || k < 0) printf("INVALID INPUT");
    else if(N == 0 && k == 0) printf("INVALID INPUT");
    else if(k == 0) // if exponent is zero, then sum is number of terms
        printf("%d\n%d",5,N);
    else{
        sum = 0; // Remember to reset the running sum
        for(i = 1; i <= 5; i++){
            term = 1; // Remember to reset the running product
            for(j = 1; j <= k; j++)
                term *= i;
            sum += term;
        }
        printf("%ld\n", sum);
        sum = 0; // Remember to reset the running sum
        for(i = 1; i <= N; i++){
            term = 1; // Remember to reset the running product
            for(j = 1; j <= k; j++)
                term *= i;
            sum += term;
        }
        printf("%ld", sum);
    }

    return 0;
}
```