Program 11- playfair cipher:

#include <stdio.h>

#include <string.h>

unsigned long long factorial(int n) {

if (n <= 1)

return 1;

return n \* factorial(n - 1);

}

int main() {

int keyLength;

printf("enter the key length:\n");

scanf("%d",&keyLength);

unsigned long long totalPossibleKeys = factorial(keyLength);

printf("Total possible keys (without considering identical encryption results): %llu\n",

totalPossibleKeys);

unsigned long long effectivelyUniqueKeys = totalPossibleKeys / keyLength;

printf("Effectively unique keys (considering identical encryption results): %llu\n",

effectivelyUniqueKeys);

return 0;

}