Counting it up

In the game of poker a 'hand' of five cards is drawn from a 'pack' of 52 cards. How many different hands are possible?

This is an example of an important general problem. If we have some number, n, of cards, all different from each other (the pack) and a smaller number, k, drawn from these, in how many ways can this be done?

The answer, well known to mathematicians, is called $\binom{n}{k}$ (or, in older texts, ^nC_k) and has as a formula:

$$\binom{n}{k} = \frac{n!}{k!(n-k)!}$$

The symbol "!" indicates the factorial:

$$x! = 1 \times 2 \times 3 \times 4 \times \cdots \times x$$

Task

Write and test a computer program using 64-bit integers that displays the value of $\binom{n}{k}$ for given n and k. Your program should not access any multiple precision features of your chosen language such as `BigInteger` in Java. Of course using `python` is right out!

(2 points, Pair)