More sequence practice

How many length 3 sequences are there consisting of distinct elements of {1,2,3}.

12

k-permutationThe number of k-element sequences of distinct symbols
from a universe of n symbols is:
 $P(n,k) = n \cdot (n-1) \cdots (n-k+1) = \frac{n!}{(n-k)!}$ k-combinationThe number of k-element subsets from a set of n
symbols is:
 $C(n,k) = \frac{P(n,k)}{k!} = \frac{n!}{k! (n-k)!}$



Overcounting

How many anagrams are there of SEATTLE (an anagram is a rearrangement of letters).

It's not 7! That counts SEATTLE and SEATTLE as different things! I swapped the Es (or maybe the Ts)