4.22 (1) $T_k = T_{n+1-k+1}$

$\binom{n}{k-1} = \binom{n}{n+1-k} \rightarrow \frac{n!}{(k-1)!(n+1-k)!} = \frac{n!}{(n+1-k)!(k-1)!}$ ✓

(2) $0^n = (1-1)^n = C_n^0 \cdot 1 \cdot 1 - C_n^1 \cdot 1 \cdot 1 + C_n^2 \cdot 1 \cdot 1 - \cdots$

$C_n^0 + C_n^2 + C_n^4 + \cdots = C_n^1 + C_n^3 + C_n^5 + \cdots$