

Exercises discussed on March 29, 2011

(HW14) Show that $S(n, k) = k S(n - 1, k) + S(n - 1, k - 1)$ ($n, k \geq 1$).

(HW15) Show that $S(n, k)k! = \sum_{j=0}^k (-1)^{k-j} \binom{k}{j} j^n$ ($n, k \geq 0$).

Hint: Show that both sides satisfy the same recurrence!