[nex14] **Reconstructing probability distributions.**

Determine three probability distributions $P_X(x)$ from the following information:

(a) $\langle X^n \rangle = a^n n!$ for $n \geq 1$,

(b) $\langle\langle X^n \rangle\rangle = a^n (n-1)!$ for $n \geq 1$,

(c) $\langle X^n \rangle = a^n/(n+1)$ for even n, $\langle X^n \rangle = 0$ for odd n.