1. Use a generating function for modeling the number of distributions of 10 lumps of coal into 3 Christmas stockings with at least 2 lumps of coal in each basket (Do not solve the generating function). Which coefficient do we want?

\[ g(x) = (x^2 + x^3 + \ldots)^3 \]

We want the coefficient of \( x^{10} \).

2. Find the coefficient of \( x^{12} \) in \( 1/(1 - x)^7 \).

\[ \binom{12 + 7 - 1}{12} \]