1. How many ways are there to distribute 5 different toys among 3 different children if every child must get at least one toy?

**Solution.**

We have to count the number of onto functions from a 5-element set to a 3-element set. This number is:

\[ 3^5 - C(3,1) \cdot 2^5 + C(3,2) \cdot 1^5 = 243 - 3 \cdot 32 + 3 = 243 - 96 + 3 = 150. \]