



recap Combinatorial Proofs "story proofs"

Some common situations you can use :

- picking members for a team
 - if you have a constant part of the term eg. $k \times$ (rest of the expression)
 - then consider picking a captain (k choices) in addition to the team
- distributing items into boxes
 - your story can be as general or specific as you need it to be

- counting bitstrings
 - if combinatorial identity includes some constant c^n then
 - try c -nary bitstrings (eg if $c=3$, strings with $\{0,1,2\}$)

- Other tips : **make sure to address all parts of the expression on LHS + RHS !**
- if there is a summation or multiple terms summed up, think about what disjoint cases exist.
 - try splitting set into disjoint subsets and choosing some elements out of each