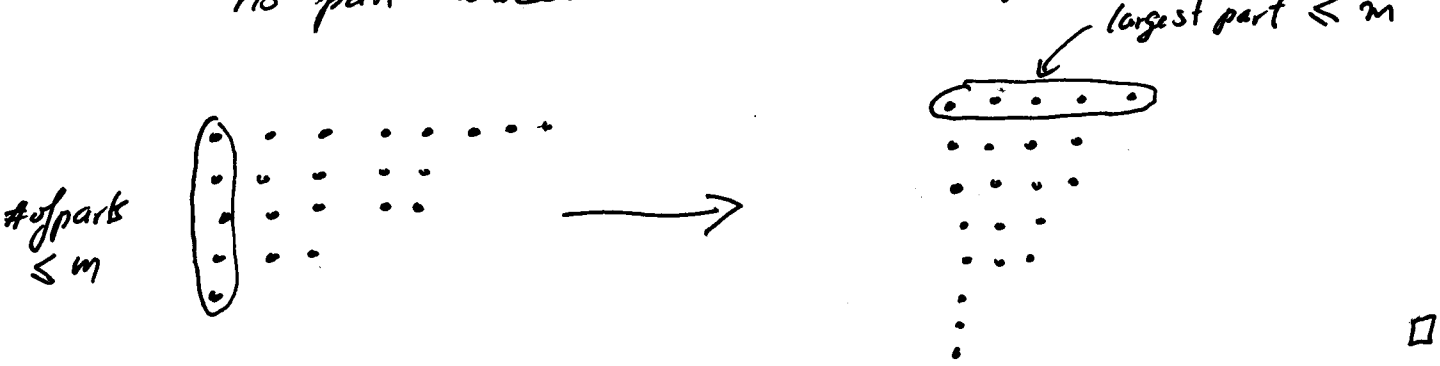
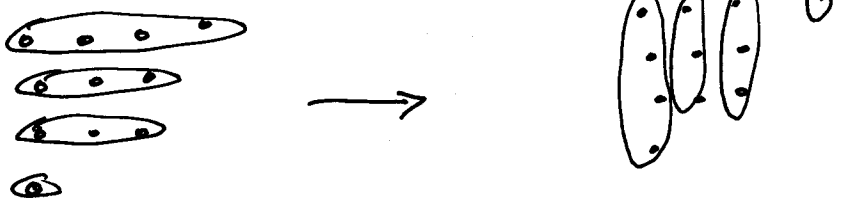
Proof Let $m, n \geq 1$.
The map $\lambda \longmapsto \lambda'$ is a bijection for the set of partitions on n into at most m parts to the set of partitions in which no part exceeds m. The result follows.



□

Definition A partition λ is *self-conjugate* if $\lambda' = \lambda$

Example
$\lambda = 4+3+3+1$ is self-conjugate.



Theorem Let $n \geq 1$.
The number of self-conjugate partitions of n
= The number of partitions of n into distinct odd parts.