

# Example

- What is the number of orderings of the set  $S$  in which  $s_1$  and  $s_2$  are adjacent?
- Solution: two cases:
  - Case 1)  $s_1$  followed by  $s_2$
  - Case 2)  $s_2$  followed by  $s_1$
- Same number of each type. Easy to see that there are  $(n-1)!$  of each type, so  $2(n-1)!$  in total