

`permute([1,2,3], 0)`

① $i=0$

`permute([1,2,3], 1)`

② $i=1$

`permute([2,1,3], 2)`

③ $i=2$

`permute([3,2,1], 3)`

① Notice that the function of the for-loop is so that each item gets its chance at the first spot.

(go into this function call)

`permute([1,2,3], 1)`

① $i=1$

`permute([1,2,3], 2)`

② $i=2$

`permute([1,3,2], 3)`

`permute([1,2,3], 3)`

② The first item is now constant, and the remaining items get their chance at the second spot.

③ This finally prints out one of the permutations of the array.