

Recognition of Permutations and Combinations

Recognition of Pr

Equation	<u>Independent</u>	<u>r at a time</u>	<u>distinct</u>	<u>order?</u>	<u>cells</u>	<u>circle</u>
$n \times n$	yes					n
$n!$	no	$r = n$	yes	yes	no	n
$(n-1)!$	no	$r = n$	yes	yes	no	y
$n!/(n-r)!$	no	$r < n$	yes	yes	no	n
$n!/n_1!n_2!n_3!$	no	no	not within groups	not within groups	yes	n
$n!/[r!(n-r)!]$	no	$r < n$	yes	no	no	n

Permutations: order matters

Combinations: order does not matter