

mobius

Probability Counting - Duplicate Orders in 4 Letters, 2 Repeats - to Factorial



1 Equation										
N	0	0	How many way letter tiles be ord 'NOON'? Show	2 C	0	С	How many ways can these letter tiles be ordered to spell 'COCO'? Show as a factorial.			
N			$\begin{array}{c} A & \underline{2!} \\ \underline{2! \cdot 2!} \end{array}$	^B 2! · 4!	O			^A 2! · 4!	^B 2! · 3!	
			^c 4! · 2!	D 2! · 2!				^c 4! · 2!	D 2! 2! · 2!	
			$\frac{1}{2! \cdot 2!}$	^F 3! · 2!				E 2! · 2!	$F \qquad \frac{1}{2! \cdot 2!}$	
How many ways can these						4 How many ways can these				
M	A	M	letter tiles be ord 'MAMA'? Show	P	P E letter tiles be ordered to spell 'PEEP'? Show as a factorial.					
A			^A 3! · 2!	B 2! 2! 2! 2!	P			$\begin{array}{c} A & \frac{1}{2! \cdot 2!} \end{array}$	^B 4! · 2!	
			^c 2! · 3!	D 2! · 4!				c 2! · 2!	D 2! 2! · 2!	
			$\frac{E}{2! \cdot 2!}$	^F 2! · 2!				E 2! · 3!	^F 2! · 4!	