

mobius

Probability Counting - Duplicate Orders in 5 Letters, 1 Repeat - to Factorial



1 Equation How many ways can these						2 How many ways can these				
SPI			letter tiles be ordered to spell 'SPILL'? Show as a factorial.		P		Z	letter tiles be ordered to spell 'PIZZA'? Show as a factorial.		
L	L		^A 4!	в 3!	Z	A		^A 2! · 2!	B 2! 2! 1!	
			$\begin{array}{c} C & \frac{1}{2! \cdot 1!} \end{array}$	D 2! · 2!				c 2!	D 3!	
			E 2! 2! · 1!	^F 2!				E 4!	F 2! · 3!	
A	How many ways can these letter tiles be ordered to spell 'APPLE'? Show as a factorial.				4 G	How many ways can these letter tiles be ordered to spell 'GRASS'? Show as a factorial.				
L	E		$\begin{array}{c} A & \underline{2!} \\ \underline{2! \cdot 1!} \end{array}$	$\begin{array}{c c} B & 1 \\ \hline 2! \cdot 1! \end{array}$	S	S		^A 3!	^B 2!	
			c 4!	^D 3!				$\begin{array}{cc} C & \frac{1}{2! \cdot 1!} \end{array}$	D 2! · 2!	
			E 2! · 3!	^F 2!				E 2! 2! · 1!	F 2! · 3!	
T	How many ways can these letter tiles be ordered to spell 'TOTEM'? Show as a factorial.			6 B	0	В	How many ways can these letter tiles be ordered to spell 'BOBBY'? Show as a factorial.			
Е	M		$\begin{array}{c} A & \underline{2!} \\ \underline{2! \cdot 1!} \end{array}$	^B 2! · 3!	В	Y		^A 3! · 2!	^B 5!	
	V		^c 4!	D 2!			'	c 3!	D 4!	
			E 1/2! · 1!	^F 3!				^E 3! · 3!	F 1 3! · 1!	
В	How many ways can these letter tiles be ordered to spell 'BUBBY'? Show as a factorial.			8	letter tiles be ordered to spell					
В	Y		^A 3! · 3!	B 2! 3! · 1!	S	Y		^A 4!	B 2! 3! · 1!	
	,		^c 3! · 2!	$\begin{array}{c c} D & \frac{1}{3! \cdot 1!} \end{array}$				c 3!	D 3! · 3!	
			I -	-				- -	-	

Ε

4!

3!

Ε

1

 $\overline{3! \cdot 1!}$

5!