



Math worksheet on 'Probability Counting - Ways to O  
3 Letters, 1 Repeat - to Factorial Equation (Level 1)'.  
of a broader unit on 'Probability and Statistics -  
Probability with Factorials Intro'

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1



How many distinct ways can  
these letter tiles be ordered?  
Show as a factorial.

<b>a</b>	$\frac{3!}{2! \cdot 2!}$	<b>b</b>	$\frac{3!}{3! \cdot 0!}$
<b>c</b>	$\frac{3!}{2!}$	<b>d</b>	$\frac{5!}{2!}$
<b>e</b>	$\frac{3!}{2! \cdot 3!}$		

2



How many distinct ways can  
these letter tiles be ordered?  
Show as a factorial.

<b>a</b>	$\frac{3!}{3! \cdot 0!}$	<b>b</b>	$\frac{3!}{2! \cdot 3!}$
<b>c</b>	$\frac{4!}{2!}$	<b>d</b>	$\frac{5!}{2! \cdot 2!}$
<b>e</b>	$\frac{3!}{2!}$		

3



How many distinct ways can  
these letter tiles be ordered?  
Show as a factorial.

<b>a</b>	$\frac{4!}{2!}$	<b>b</b>	$\frac{3!}{3!}$
<b>c</b>	$\frac{3!}{3! \cdot 0!}$	<b>d</b>	$\frac{3!}{2!}$

4



How many distinct ways can  
these letter tiles be ordered?  
Show as a factorial.

<b>a</b>	$\frac{3!}{4!}$	<b>b</b>	$\frac{3!}{2! \cdot 3!}$
<b>c</b>	$\frac{3!}{2!}$	<b>d</b>	$\frac{3!}{3! \cdot 0!}$
<b>e</b>	$\frac{4!}{2!}$	<b>f</b>	$\frac{3!}{2! \cdot 2!}$

5



How many distinct ways can  
these letter tiles be ordered?  
Show as a factorial.

<b>a</b>	$\frac{3!}{2! \cdot 2!}$	<b>b</b>	$\frac{4!}{2!}$
<b>c</b>	$\frac{4!}{2! \cdot 2!}$	<b>d</b>	$\frac{5!}{3! \cdot 2!}$
<b>e</b>	$\frac{3!}{3! \cdot 0!}$	<b>f</b>	$\frac{3!}{2!}$

6



How many distinct ways can  
these letter tiles be ordered?  
Show as a factorial.

<b>a</b>	$\frac{3!}{3!}$	<b>b</b>	$\frac{3!}{3! \cdot 0!}$
<b>c</b>	$\frac{3!}{2!}$		

7



How many distinct ways can  
these letter tiles be ordered?  
Show as a factorial.

<b>a</b>	$\frac{3!}{2!}$	<b>b</b>	$\frac{3!}{2! \cdot 3!}$
<b>c</b>	$\frac{3!}{3!}$	<b>d</b>	$\frac{3!}{2! \cdot 2!}$
<b>e</b>	$\frac{3!}{3! \cdot 0!}$		