



Math worksheet on 'Probability Counting - Ways to Letters, 2 Repeats - to Factorial Equation (Level 1)'. broader unit on 'Probability and Statistics - Binomial Intro'

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[app.mobius.academy/math/units/probability\\_and\\_statistics\\_probability\\_with\\_binomial](http://app.mobius.academy/math/units/probability_and_statistics_probability_with_binomial)

**2**

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

R	R	I
I		

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

**1**

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

R	R	H
H		

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

**3**

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

J	Y	J
Y		

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

**4**

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

F	F	G
G		

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

**5**

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

X	Y	Y
X		

<b>a</b>	$\frac{4!}{2! \cdot 4!}$	<b>b</b>	$\frac{6!}{2! \cdot 2! \cdot 2!}$
<b>c</b>	$\frac{4!}{2! \cdot 2!}$	<b>d</b>	$\frac{5!}{3! \cdot 2! \cdot 2!}$
<b>e</b>	$\frac{4!}{4! \cdot 0!}$	<b>f</b>	$\frac{3!}{2! \cdot 2!}$

**6**

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

H	F	F
H		

<b>a</b>	$\frac{4!}{4! \cdot 2!}$	<b>b</b>	$\frac{4!}{2! \cdot 2!}$
<b>c</b>	$\frac{6!}{4! \cdot 2! \cdot 2!}$	<b>d</b>	$\frac{3!}{2! \cdot 2!}$
<b>e</b>	$\frac{4!}{4! \cdot 0!}$		

**7**

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

F	Y	Y
F		

<b>a</b>	$\frac{4!}{2! \cdot 3!}$	<b>b</b>	$\frac{4!}{3! \cdot 2!}$
<b>c</b>	$\frac{4!}{2! \cdot 2!}$	<b>d</b>	$\frac{6!}{2! \cdot 2!}$
<b>e</b>	$\frac{3!}{2! \cdot 2!}$	<b>f</b>	$\frac{4!}{4! \cdot 0!}$