



Math worksheet on 'Probability Counting - Choose  $n$  Count of Total Outcomes - To Factorial Equation (Le broader unit on 'Probability and Statistics - Perr Combinations Calculating - Practice

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**1**

How many total ways can 2 letter tiles be drawn from this set? Show as a factorial.

C	O	R
E	H	O

<b>a</b>	$\frac{8!}{2! \cdot 6!}$	<b>b</b>	$\frac{8!}{3! \cdot 5!}$
<b>c</b>	$\frac{2!}{6! \cdot 4!}$	<b>d</b>	$\frac{6!}{4!}$
<b>e</b>	$\frac{6!}{2! \cdot 4!}$		

**2**

How many total ways can 2 letter tiles be drawn from this set? Show as a factorial.

W	G	I
A	E	A

<b>a</b>	$\frac{6!}{2! \cdot 4!}$	<b>b</b>	$\frac{6!}{4!}$
<b>c</b>	$\frac{2!}{6! \cdot 4!}$	<b>d</b>	$\frac{7!}{2! \cdot 5!}$

**3**

How many total ways can 2 letter tiles be drawn from this set? Show as a factorial.

X	U	S
E	U	I
J		

<b>a</b>	$\frac{2!}{7! \cdot 5!}$	<b>b</b>	$\frac{7!}{2! \cdot 5!}$
<b>c</b>	$\frac{7!}{5!}$		

**4**

How many total ways can 2 letter tiles be drawn from this set? Show as a factorial.

M	W	O
E	Q	E

<b>a</b>	$\frac{8!}{2! \cdot 6!}$	<b>b</b>	$\frac{2!}{6! \cdot 4!}$
<b>c</b>	$\frac{6!}{4!}$	<b>d</b>	$\frac{6!}{2! \cdot 4!}$

**5**

How many total ways can 3 letter tiles be drawn from this set? Show as a factorial.

O	X	A
O	T	E
K		

<b>a</b>	$\frac{3!}{7! \cdot 4!}$	<b>b</b>	$\frac{7!}{4!}$
<b>c</b>	$\frac{7!}{3! \cdot 4!}$		

**6**

How many total ways can 2 letter tiles be drawn from this set? Show as a factorial.

A	C	I
B	O	

<b>a</b>	$\frac{2!}{5! \cdot 3!}$	<b>b</b>	$\frac{7!}{3! \cdot 4!}$
<b>c</b>	$\frac{5!}{3!}$	<b>d</b>	$\frac{5!}{2! \cdot 3!}$
<b>e</b>	$\frac{6!}{2! \cdot 4!}$	<b>f</b>	$\frac{4!}{2! \cdot 2!}$

**7**

How many total ways can 2 letter tiles be drawn from this set? Show as a factorial.

U	K	O
S	I	

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