



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

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app.mobius.academy/math/units/probability_and_statistics/probability_with_factorials

2

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

B	K	K
T		

a	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2}$	b	$\frac{4 \cdot 3 \cdot 2}{2 \cdot 2}$
c	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 1}$	d	$\frac{5 \cdot 4 \cdot 3 \cdot 2}{2}$
e	$\frac{3 \cdot 2}{2}$	f	$\frac{4 \cdot 3 \cdot 2}{2}$

1

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

K	K	C
K		

a	$\frac{4 \cdot 3 \cdot 2}{2 \cdot 3 \cdot 2}$	b	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 2}$
c	$\frac{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2}{2 \cdot 3 \cdot 2}$	d	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2}$
e	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 1}$	f	$\frac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$

3

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

N	N	N
I		

a	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2}$	b	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$
c	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 1}$	d	$\frac{3 \cdot 2}{3 \cdot 2}$
e	$\frac{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2}{2 \cdot 3 \cdot 2}$		

4

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

Q	M	Q
Q		

a	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 1}$	b	$\frac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2}$
c	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2}$	d	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 2}$
e	$\frac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$	f	$\frac{3 \cdot 2}{3 \cdot 2}$

5

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

N	N	N
L		

a	$\frac{3 \cdot 2}{3 \cdot 2}$	b	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2}$
c	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$	d	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 1}$
e	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2}$	f	$\frac{4 \cdot 3 \cdot 2}{2 \cdot 3 \cdot 2}$

6

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

D	Y	J
Y		

a	$\frac{3 \cdot 2}{2}$	b	$\frac{4 \cdot 3 \cdot 2}{2 \cdot 2}$
c	$\frac{4 \cdot 3 \cdot 2}{2}$	d	$\frac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 2}$
e	$\frac{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 2}$	f	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 1}$

7

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

O	Z	O
O		

a	$\frac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2}$	b	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 1}$
c	$\frac{4 \cdot 3 \cdot 2}{3 \cdot 2}$	d	$\frac{4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2}$
e	$\frac{4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2}$	f	$\frac{3 \cdot 2}{3 \cdot 2}$