



Probability Counting - Choose N Letters from M, Count of Total Outcomes - To Factorial Equation

1

O	X	A
O	T	E
K		

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

A $\frac{7!}{3! \cdot 4!}$ B $\frac{3!}{7! \cdot 4!}$

C $\frac{7!}{4!}$ D $\frac{8!}{3! \cdot 5!}$

E $\frac{7!}{2! \cdot 5!}$ F $\frac{3!}{5! \cdot 0!}$

2

U	U	X
F	I	D

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

A $\frac{6!}{4!}$ B $\frac{2!}{6! \cdot 4!}$

C $\frac{6!}{2! \cdot 4!}$ D $\frac{8!}{3! \cdot 5!}$

E $\frac{4!}{2! \cdot 2!}$ F $\frac{3!}{5! \cdot 0!}$

3

G	I	U
I	I	

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

A $\frac{5!}{3! \cdot 2!}$ B $\frac{5!}{2!}$

C $\frac{3!}{5! \cdot 2!}$ D $\frac{5!}{5! \cdot 0!}$

E $\frac{7!}{2! \cdot 5!}$ F $\frac{3!}{5! \cdot 0!}$

4

I	O	N
O	I	

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

A $\frac{5!}{4! \cdot 1!}$ B $\frac{5!}{3! \cdot 2!}$

C $\frac{5!}{2!}$ D $\frac{3!}{5! \cdot 2!}$

E $\frac{4!}{2! \cdot 2!}$ F $\frac{3!}{5! \cdot 0!}$

5

M	I	E
U	I	

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

A $\frac{5!}{3!}$ B $\frac{5!}{2! \cdot 3!}$

C $\frac{2!}{5! \cdot 3!}$ D $\frac{3!}{3! \cdot 0!}$

E $\frac{6!}{2! \cdot 4!}$ F $\frac{3!}{5! \cdot 0!}$

6

I	E	Z
V	E	O

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

A $\frac{6!}{2! \cdot 4!}$ B $\frac{6!}{4!}$

C $\frac{8!}{3! \cdot 5!}$ D $\frac{4!}{2! \cdot 2!}$

E $\frac{2!}{6! \cdot 4!}$ F $\frac{3!}{5! \cdot 0!}$

7

S	C	H
I	M	A
I		

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

A $\frac{7!}{5!}$ B $\frac{2!}{7! \cdot 5!}$

C $\frac{7!}{2! \cdot 5!}$ D $\frac{5!}{2!}$

E $\frac{5!}{3! \cdot 2!}$ F $\frac{3!}{5! \cdot 2!}$

8

U	A	T
U	I	

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

A $\frac{3!}{2! \cdot 1!}$ B $\frac{7!}{5! \cdot 2!}$

C $\frac{3!}{3! \cdot 0!}$ D $\frac{5!}{2!}$

E $\frac{5!}{3! \cdot 2!}$ F $\frac{3!}{5! \cdot 2!}$