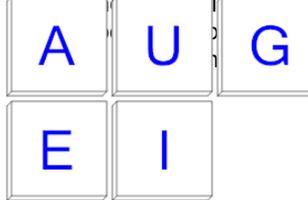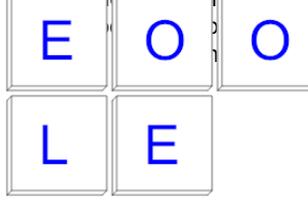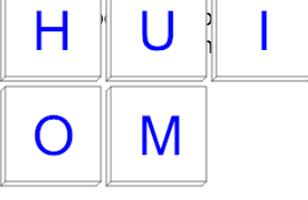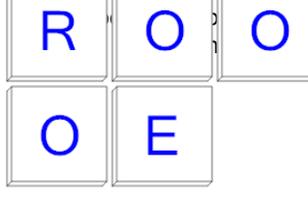# mobius

Probability Counting - Choose N Letters from M, Count of Total Outcomes - To Bracket Notation

1 How many total ways can 2 letter tiles be drawn from this set?

O	C	E
I	L	O
F		

A $\binom{7}{2}$ B $\binom{6}{2}$ C $\binom{9}{2}$

D $\binom{8}{2}$ E $\binom{2}{7}$ F $\binom{6}{3}$

2 How many total ways can 3 letter tiles be drawn from this set?

A	U	G
E	I	

A $\binom{5}{2}$ B $\binom{3}{5}$ C $\binom{3}{2}$

D $\binom{3}{3}$ E $\binom{7}{2}$ F $\binom{5}{3}$

3 How many total ways can 3 letter tiles be drawn from this set?

A	A	A
E	K	

A $\binom{4}{4}$ B $\binom{3}{3}$ C $\binom{6}{4}$

D $\binom{7}{2}$ E $\binom{5}{3}$ F $\binom{3}{5}$

4 How many total ways can 3 letter tiles be drawn from this set?

E	O	O
L	E	

A $\binom{3}{5}$ B $\binom{5}{4}$ C $\binom{4}{4}$

D $\binom{6}{5}$ E $\binom{5}{3}$ F $\binom{6}{4}$

5 How many total ways can 3 letter tiles be drawn from this set?

E	A	U
G	J	O

A $\binom{7}{5}$ B $\binom{6}{3}$ C $\binom{6}{5}$

D $\binom{5}{2}$ E $\binom{6}{2}$ F $\binom{7}{2}$

6 How many total ways can 2 letter tiles be drawn from this set?

A	E	Q
S	U	V

A $\binom{8}{2}$ B $\binom{6}{2}$ C $\binom{2}{6}$

D $\binom{5}{2}$ E $\binom{4}{2}$

7 How many total ways can 2 letter tiles be drawn from this set?

H	U	I
O	M	

A $\binom{6}{2}$ B $\binom{3}{3}$ C $\binom{7}{3}$

D $\binom{5}{2}$ E $\binom{2}{5}$ F $\binom{4}{2}$

8 How many total ways can 2 letter tiles be drawn from this set?

R	O	O
O	E	

A $\binom{4}{2}$ B $\binom{5}{3}$ C $\binom{6}{2}$

D $\binom{2}{5}$ E $\binom{5}{2}$ F $\binom{3}{2}$