# mobiu

Math worksheet on *'Probability Counting - Ways to O 5 Letters, 1 Repeat - to Equation (Level 1)'*. Part of broader unit on *'Probability and Statistics - Probabil with Factorials Intro'*
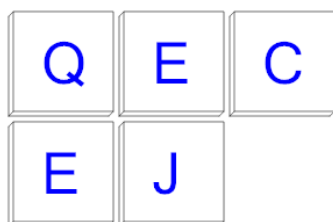
Learn online:
app.mobius.academy/math/units/probability_and_statistics_probability_with_factorials

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

B D C N C
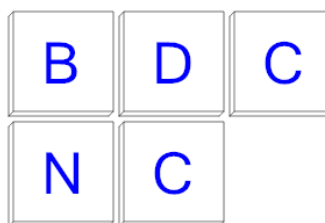
a) $\dfrac{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2}{2 \cdot 2}$ b) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}$

c) $\dfrac{4 \cdot 3 \cdot 2}{2}$ d) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2}$

e) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{2 \cdot 2}$ f) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{2}$

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

Q E C E J

a) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2}$ b) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}$

c) $\dfrac{4 \cdot 3 \cdot 2}{2}$ d) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{2}$

e) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2}$

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

Y P N N N
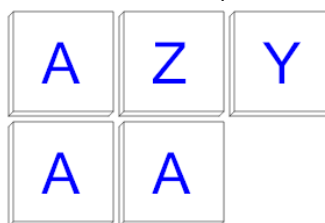
a) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2}$ b) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}$

c) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 2}$ d) $\dfrac{4 \cdot 3 \cdot 2}{3 \cdot 2}$

e) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$ f) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2}$

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

Y S S D S

a) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2}$ b) $\dfrac{4 \cdot 3 \cdot 2}{3 \cdot 2}$

c) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 2}$ d) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$

e) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}$ f) $\dfrac{7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2 \cdot 3 \cdot 2}$

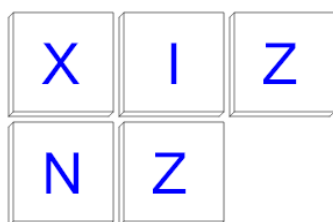**5** How many distinct ways can these letter tiles be ordered? Show as a multiplication.

A Z Y A A

a) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2}$ b) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}$

c) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 2}$ d) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$

e) $\dfrac{7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$ f) $\dfrac{4 \cdot 3 \cdot 2}{3 \cdot 2}$

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

X I Z N Z

a) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}$ b) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{2 \cdot 2}$

c) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{2}$ d) $\dfrac{3 \cdot 2}{2}$

e) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{4 \cdot 3 \cdot 2}$

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

I M I I S

a) $\dfrac{3 \cdot 2}{3 \cdot 2}$ b) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2}$

c) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}$ d) $\dfrac{4 \cdot 3 \cdot 2}{3 \cdot 2}$

e) $\dfrac{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$ f) $\dfrac{5 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 3 \cdot 2}$