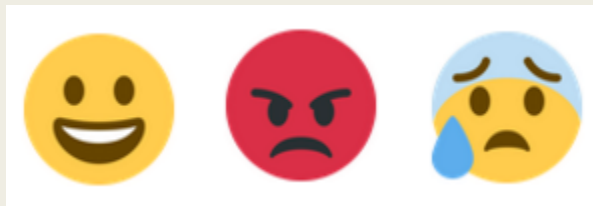


The image features two large, thick black L-shaped brackets. One is positioned on the left side, with its vertical bar extending downwards and its horizontal bar extending to the right. The other is on the right side, with its vertical bar extending upwards and its horizontal bar extending to the left. These brackets frame the central text.

PERMUTATIONS

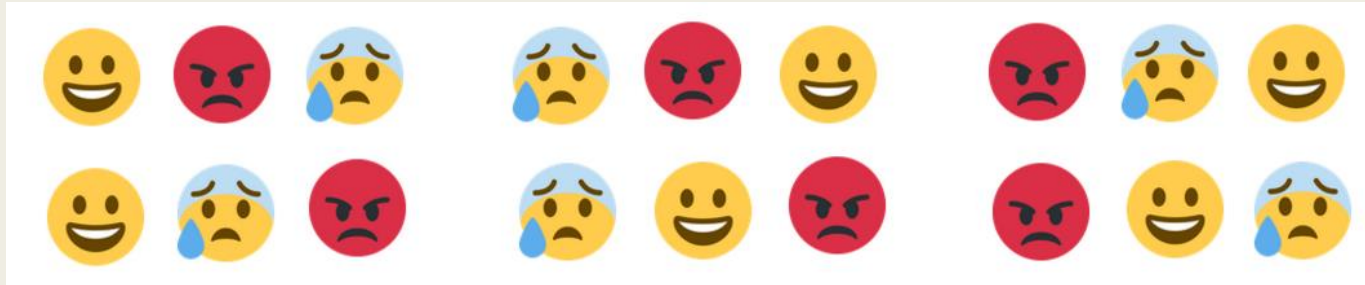
A permutation is a particular arrangement or order of a set of objects.

Example: How many permutations of these emoticons are there?



Answer

Diagram/List:



Analytical Method:

Fundamental Theorem of Counting:

$$3 \cdot 2 \cdot 1 = 6 \text{ permutations}$$

Example

How many different permutations of two of the five vowels **A E I O U** are possible? Can you list them all?

List

FTOC

Permutation Rule