

Day 02

The Bright Side of
 Mathematics



Advent of Mathematical Symbols

Levi-Civita symbol: $\epsilon_{ijk} := \begin{cases} 1, & (i,j,k) = (1,2,3) \text{ or } (2,3,1) \text{ or } (3,1,2) \\ -1, & (i,j,k) = (3,2,1) \text{ or } (2,1,3) \text{ or } (1,3,2) \\ 0, & \text{else} \end{cases}$

Example: $(a \times b)_i = \sum_{j,k=1}^3 \epsilon_{ijk} a_j b_k$