Why

We want sums to follow those of natural numbers.[1]

Definition

Consider $[(a,b)], [(c,d)] \in \mathbf{Z}$. We define the *integer sum* of $[(a,b)]$ with $[(c,d)]$ as $[(a+c, b+d)]$.[2]

Notation

We denote the sum of $[(a,b)]$ and $[(c,d)]$ by $[(a,b)] + [(b,c)]$ So if $x, y \in \mathbf{Z}$ then the sum of x and y is $x + y$.

[1] Future editions will modify this.

[2] One needs to show that this is well-defined. The account will appear in future editions.


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Integer Numbers
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