



RATIONAL ORDER

Why

We want to order the rationals.

Definition

Consider $[(a, b)], [(b, c)] \in \mathbf{Q}$ with $0_{\mathbf{Z}} < b, d$. If $ad < bc$, then we say that $[(a, b)]$ is *less than* $[(b, c)]$.¹ If $[(a, b)]$ is less than $[(b, c)]$ or equal, then we say that $[(a, b)]$ is *less than or equal to* $[(b, c)]$.

Notation

If $x, y \in \mathbf{Q}$ and x is less than y , then we write $x < y$. If x is less than or equal to y , we write $x \leq y$.

¹One needs to show that this is well-defined. The account will appear in future editions.

