

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)]. 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 $x \le y$.

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

