



Why

What is the multiplicative inverse of $[(a, b)]$ in the rationals?

Result

Proposition 1. *The multiplicative inverse of $[(a, b)] \in \mathbf{Q}$ if $b \neq 0_{\mathbf{Z}}$ is $[(b, a)]$.*

Notation

We denote the multiplicative inverse of $q \in \mathbf{Q}$ by q^{-1} . We denote $q \cdot (r^{-1})$ by q/r .

Division

We call the operation $(a, b) \mapsto a/b$ *rational division*.

