

coprime-equiv-unique-pair^{11,40}

$\forall p:\mathbb{Z}, q:\text{int_nzero}, a,b:\mathbb{Z}.$

$\text{coprime}(p; q)$

$\Rightarrow \text{coprime}(a; b)$

$\Rightarrow ((p * b) = (a * q))$

$\Rightarrow ((p < 0) \iff (a < 0))$

$\Rightarrow ((q < 0) \iff (b < 0))$

$\Rightarrow \langle p, q \rangle = \langle a, b \rangle \in (:\mathbb{Z} \times \text{int_nzero})$