

q-constraint-positive^{11,40}

$\forall x: (\mathbb{N} \rightarrow \mathbb{Q}), r: \mathbb{Z}, k: \mathbb{N}^+, y: (\mathbb{Q} \text{ List}).$

$(k \leq \|y\|)$

$\Rightarrow 0 < x(k)$

$\Rightarrow (\text{q-rel}(r; \text{q-linear}(k; j.x(j); y)))$

$\iff \text{q-rel}(r; y[(k - 1)] + ((1/x(k)) * \text{q-linear}(k - 1; j.x(j); y)))$