q-constraint-negative[11,40]

$\forall x{:}(\mathbb{N} \to \mathbb{Q})$, $r{:}\mathbb{Z}$, $k{:}\mathbb{N}^{+}$, $y{:}(\mathbb{Q}\ \text{List})$.
$(k \leq \|y\|)$
$\Rightarrow x(k) < 0$
$\Rightarrow (\text{q-rel}(r;\text{q-linear}(k;j.x(j);y))$
$\qquad \Longleftrightarrow \text{q-rel}(r;\text{-}(y[(k\ \text{-}\ 1)]) + ((\text{-}1/x(k)) * \text{q-linear}(k\ \text{-}\ 1;j.x(j);y))))$