q-sat-constraints[11,40]

q-sat-constraints(k;A;y)
$\equiv_{\text{def}}$ ($\|y\| = k$)
c$\wedge$ ($\forall a{\in}A$.
let F,r,$G = a$ in
if($r =_0 0$)
then q-linear(k;$j.F[j]?0$;y) = q-linear(k;$j.G[j]?0$;y)
if($r =_0 1$)
then q-linear(k;$j.F[j]?0$;y) $\leq$ q-linear(k;$j.G[j]?0$;y)
else q-linear(k;$j.F[j]?0$;y) $<$ q-linear(k;$j.G[j]?0$;y)
fi)

clarification:

q-sat-constraints(k;A;y)
$\equiv_{\text{def}}$ ($\|y\| = k \in \mathbb{Z}$)
c$\wedge$ l_all(A;:($\mathbb{Q}$ List)
$\times$ (:$\mathbb{Z}$
$\times$ ($\mathbb{Q}$ List));a.let F,r,$G = a$ in
if($r =_0 0$)
then q-linear(k;$j.F[j]?0$;y) = q-linear(k;$j.G[j]?0$;y) $\in \mathbb{Q}$
if($r =_0 1$)
then q-linear(k;$j.F[j]?0$;y) $\leq$ q-linear(k;$j.G[j]?0$;y)
else q-linear(k;$j.F[j]?0$;y) $<$ q-linear(k;$j.G[j]?0$;y)
fi)

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http://www.nuprl.org/FDLcontent/p0_963683_/p54_248163_{q-sat-constraints}.html