

weighted-sum-linear^{11,40}

$\forall a, b: \mathbb{Q}, p: (\mathbb{Q} \text{ List}), F, G: (\{0.. \|p\|^{-}\} \rightarrow \mathbb{Q}).$

$\text{weighted-sum}(p; \lambda x. (a * (F(x)) + (b * (G(x))))$

$=$

$((a * \text{weighted-sum}(p; F)) + (b * \text{weighted-sum}(p; G)))$

$\in \mathbb{Q}$