

double_sum_functionality^{4,23}

$\forall n, m: \mathbb{N}, f, g: (\mathbb{N}_{<n} \rightarrow \mathbb{N}_{<m} \rightarrow \mathbb{Z})$.

$(\forall x: \mathbb{N}_{<n}, y: \mathbb{N}_{<m}. f(x, y) = g(x, y))$

$\Rightarrow \text{sum}(f(x, y) \mid x < n; y < m) = \text{sum}(g(x, y) \mid x < n; y < m) \in \mathbb{Z}$