

t25\_rvsum\_2  
(TMX5hZeFSKTXUUw8djs5T1UbJE5ZL2D8dsg)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v1\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k11\_rvsum\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k18\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0) \wedge (v1\_valued\_0 X0)))) \wedge ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1) \wedge (v1\_valued\_0 X1)))) \Rightarrow (k11\_rvsum\_2 X0 X1 = k18\_valued\_1 X0 X1) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\exists X2.(v1\_relat\_1 X2) \wedge ((v4\_relat\_1 X2 X0) \wedge (v5\_relat\_1 X2 X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\exists X1.(m1\_finseq\_1 X1 X0) \wedge ((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 k5\_numbers) \wedge ((v5\_relat\_1 X1 X0) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_xboole\_0 X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_finseq\_1 X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_valued\_0 X1))) \wedge ((v1\_relat\_1 X2) \wedge ((v4\_relat\_1 X2 X0) \wedge ((v1\_funct\_1 X2) \wedge (v1\_valued\_0 X2)))))) \Rightarrow ((v1\_relat\_1 (k18\_valued\_1 X1 X2)) \wedge ((v4\_relat\_1 (k18\_valued\_1 X1 X2) X0) \wedge (v1\_funct\_1 (k18\_valued\_1 X1 X2)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_valued\_0 \\ X0)))\wedge((v1\_relat\_1 X1)\wedge((v1\_funct\_1 X1)\wedge(v1\_valued\_0 X1))))\Rightarrow \\ ((v1\_relat\_1 (k18\_valued\_1 X0 X1))\wedge(v1\_funct\_1 (k18\_valued\_1 \\ X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.k6\_finseq\_1 X0 = k1\_xboole\_0 \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_valued\_0 \\ X0)))\wedge((v1\_relat\_1 X1)\wedge((v1\_funct\_1 X1)\wedge(v1\_valued\_0 X1))))\Rightarrow \\ (k18\_valued\_1 X0 X1 = k18\_valued\_1 X1 X0) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.((v1\_relat\_1 X1)\wedge(v4\_relat\_1 \\ X1 X0))\Rightarrow((v1\_xboole\_0 X1)\wedge((v1\_relat\_1 X1)\wedge(v4\_relat\_1 X1 X0)))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(m1\_finseq\_1 X0 k2\_numbers)\Rightarrow(v1\_valued\_0 X0) \quad (10)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge((v1\_finseq\_1 \\ X0)\wedge(v1\_valued\_0 X0))))\Rightarrow(k11\_rvsum\_2 (k6\_finseq\_1 k2\_numbers) \\ X0 = k6\_finseq\_1 k2\_numbers) \end{aligned}$$