

t12\_rvsum\_2  
(TMR8DkDQJBSPxg5RHog7WaKCocimnSYPhZV)

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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  $k7\_rvsum\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k28\_binop\_2 : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow \\ & \quad (\forall X2.(\neg v1\_xboole\_0 X2) \Rightarrow (\forall X3.((v1\_funct\_1 X3) \wedge \\ & \quad ((v1\_funct\_2 X3 (k2\_zfmisc\_1 X0 X1) X2) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\ & \quad (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1) X2)))))) \Rightarrow (\forall X4.(m2\_finseq\_1 \\ & \quad X4 X0) \Rightarrow (\forall X5.(m2\_finseq\_1 X5 X1) \Rightarrow ((k3\_funcop\_1 X3 (k6\_finseq\_1 \\ & \quad X0) X5 = k6\_finseq\_1 X2) \wedge (k3\_funcop\_1 X3 X4 (k6\_finseq\_1 X1) = k6\_finseq\_1 \\ & \quad X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \tag{2}$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finseq\_1 X0) \wedge (v1\_valued\_0 X0)))) \Rightarrow (m2\_finseq\_1 X0 k2\_numbers) \tag{3}$$

Assume the following.

$$\neg v1\_xboole\_0 k2\_numbers \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0)\Rightarrow((v1\_relat\_1 X1)\wedge(v1\_funct\_1 X1)\wedge(v1\_finseq\_1 X1)) \quad (6)$$

Assume the following.

$$\forall X0.m2\_finseq\_1 (k6\_finseq\_1 X0) X0 \quad (7)$$

Assume the following.

$$(v1\_funct\_1 k28\_binop\_2)\wedge((v1\_funct\_2 k28\_binop\_2 (k2\_zfmisc\_1 k2\_numbers k2\_numbers) k2\_numbers)\wedge(m1\_subset\_1 k28\_binop\_2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 k2\_numbers k2\_numbers) k2\_numbers)))) \quad (8)$$

Assume the following.

$$\forall X0.k6\_finseq\_1 X0 = k1\_xboole\_0 \quad (9)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge((v1\_finseq\_1 X0)\wedge(v1\_valued\_0 X0))))\Rightarrow(\forall X1.((v1\_relat\_1 X1)\wedge((v1\_funct\_1 X1)\wedge((v1\_finseq\_1 X1)\wedge(v1\_valued\_0 X1))))\Rightarrow(k7\_rvsum\_2 X0 X1 = k3\_funcop\_1 k28\_binop\_2 X0 X1)) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_finseq\_1 X0 k2\_numbers)\Rightarrow(v1\_valued\_0 X0) \quad (11)$$

**Theorem 1**

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge((v1\_finseq\_1 X0)\wedge(v1\_valued\_0 X0))))\Rightarrow((k7\_rvsum\_2 (k6\_finseq\_1 k2\_numbers) X0 = k6\_finseq\_1 k2\_numbers)\wedge(k7\_rvsum\_2 X0 (k6\_finseq\_1 k2\_numbers) = k6\_finseq\_1 k2\_numbers))$$