

## t37\_rvsum\_2

(TMM9atwuFZxmCMBqQAfFyYsxnZe6JdAYPfF)

October 27, 2020

Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k17\_rvsum\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $k5\_complex1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  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  $v1\_setwiseo : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_finsop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k27\_binop\_2 : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 (k2\_zfmisc\_1 X0 X0) X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) X0)))) \Rightarrow (\forall X2. (v7\_ordinal1 \\ & X2) \Rightarrow ((v1\_setwiseo X1 X0) \Rightarrow (k1\_finsop\_1 X0 (k5\_finseq\_2 X0 X2 (k4\_binop\_1 \\ & X0 X1)) X1 = k4\_binop\_1 X0 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$k4\_binop\_1 k2\_numbers k27\_binop\_2 = k6\_numbers \tag{2}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1\_xboole\_0 X0) \wedge ((v7\_ordinal1 \\ & X1) \wedge (m1\_subset\_1 X2 X0))) \Rightarrow (k5\_finseq\_2 X0 X1 X2 = k2\_finseq\_2 X1 \\ & X2) \end{aligned} \tag{4}$$

Assume the following.

$$k5\_complex1 = k1\_xboole\_0 \tag{5}$$

Assume the following.

$$\neg v1\_xboole\_0 \ k2\_numbers \quad (6)$$

Assume the following.

$$(v1\_funct\_1 \ k27\_binop\_2) \wedge ((v1\_funct\_2 \ k27\_binop\_2 \ (k2\_zfmisc\_1 \ k2\_numbers \ k2\_numbers) \ k2\_numbers) \wedge (v1\_setwiseo \ k27\_binop\_2 \ k2\_numbers)) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_finseq\_2 \ X1 \ X0) \Rightarrow (\forall X2. (m2\_finseq\_2 \ X2 \ X0 \ X1) \Rightarrow (m2\_finseq\_1 \ X2 \ X0)) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1\_xboole\_0 \ X0) \wedge ((v7\_ordinal1 \ X1) \wedge (m1\_subset\_1 \ X2 \ X0))) \Rightarrow (m2\_finseq\_2 \ (k5\_finseq\_2 \ X0 \ X1 \ X2) \ X0 \ (k4\_finseq\_2 \ X1 \ X0)) \quad (9)$$

Assume the following.

$$m1\_subset\_1 \ k5\_complex1 \ k2\_numbers \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. (v7\_ordinal1 \ X0) \Rightarrow (m1\_finseq\_2 \ (k4\_finseq\_2 \ X0 \ X1) \ X1) \quad (11)$$

Assume the following.

$$(v1\_funct\_1 \ k27\_binop\_2) \wedge ((v1\_funct\_2 \ k27\_binop\_2 \ (k2\_zfmisc\_1 \ k2\_numbers \ k2\_numbers) \ k2\_numbers) \wedge (m1\_subset\_1 \ k27\_binop\_2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ (k2\_zfmisc\_1 \ k2\_numbers \ k2\_numbers) \ k2\_numbers)))) \quad (12)$$

Assume the following.

$$\forall X0. (m2\_finseq\_1 \ X0 \ k2\_numbers) \Rightarrow (k17\_rsum\_1 \ X0 = k1\_finsop\_1 \ k2\_numbers \ X0 \ k27\_binop\_2) \quad (13)$$

**Theorem 1**

$$\forall X0. (v7\_ordinal1 \ X0) \Rightarrow (k17\_rsum\_1 \ (k5\_finseq\_2 \ k2\_numbers \ X0 \ k5\_complex1) = k5\_complex1)$$