

t28\_fvsum\_1

(TMJC4bQMs2dgrqpedTSMw97xwSZD4iUsx4A)

October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v1\_algstr\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $l2\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_fvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_fvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v2\_struct\_0 \\ & X1) \wedge ((v13\_algstr\_0 X1) \wedge ((v1\_algstr\_1 X1) \wedge ((v3\_rlvect\_1 X1) \wedge \\ & ((v4\_rlvect\_1 X1) \wedge (l2\_algstr\_0 X1)))))) \Rightarrow (\forall X2.(m2\_finseq\_2 \\ & X2 (u1\_struct\_0 X1) (k4\_finseq\_2 X0 (u1\_struct\_0 X1))) \Rightarrow (\forall X3. \\ & (m2\_finseq\_2 X3 (u1\_struct\_0 X1) (k4\_finseq\_2 X0 (u1\_struct\_0 \\ & X1))) \Rightarrow ((k4\_fvsum\_1 X0 X1 X2 X3 = k5\_finseq\_2 (u1\_struct\_0 X1) X0 \\ & (k4\_struct\_0 X1)) \Rightarrow ((X2 = k6\_fvsum\_1 X0 X1 X3) \wedge (X3 = k6\_fvsum\_1 X0 \\ & X1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_2 X1 X0) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v2\_struct\_0 \\ & X1) \wedge ((v13\_algstr\_0 X1) \wedge ((v1\_algstr\_1 X1) \wedge ((v3\_rlvect\_1 X1) \wedge \\ & ((v4\_rlvect\_1 X1) \wedge (l2\_algstr\_0 X1)))))) \Rightarrow (\forall X2.(m2\_finseq\_2 \\ & X2 (u1\_struct\_0 X1) (k4\_finseq\_2 X0 (u1\_struct\_0 X1))) \Rightarrow (k4\_fvsu1 \\ & X0 X1 X2 (k6\_fvsu1 X0 X1 X2) = k5\_finseq\_2 (u1\_struct\_0 X1) X0 (k4\_struct\_0 \\ & X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((m1\_subset\_1 X0 k5\_numbers) \wedge \\ & (((\neg v2\_struct\_0 X1) \wedge (l2\_algstr\_0 X1)) \wedge (m1\_subset\_1 X2 (k4\_finseq\_2 \\ & X0 (u1\_struct\_0 X1)))) \Rightarrow (m2\_finseq\_2 (k6\_fvsu1 X0 X1 X2) (u1\_struct\_0 \\ & X1) (k4\_finseq\_2 X0 (u1\_struct\_0 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(v7\_ordinal1 X0) \Rightarrow (m1\_finseq\_2 (k4\_finseq\_2 X0 X1) X1) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (7)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v2\_struct\_0 \\ & X1) \wedge ((v13\_algstr\_0 X1) \wedge ((v1\_algstr\_1 X1) \wedge ((v3\_rlvect\_1 X1) \wedge \\ & ((v4\_rlvect\_1 X1) \wedge (l2\_algstr\_0 X1)))))) \Rightarrow (\forall X2.(m2\_finseq\_2 \\ & X2 (u1\_struct\_0 X1) (k4\_finseq\_2 X0 (u1\_struct\_0 X1))) \Rightarrow (k6\_fvsu1 \\ & X0 X1 (k6\_fvsu1 X0 X1 X2) = X2))) \end{aligned}$$