

t3\_sprect\_5 (TM-  
RMtQ2FHKUYmWPfvCBZLzCaMfJKZA9Ym4p)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_finseq\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 X2 X0) \Rightarrow (\forall X3. (m2\_finseq\_1 X3 X0) \Rightarrow \\ & (((X1 \in k10\_xtuple\_0 X3) \wedge (X2 \in k10\_xtuple\_0 (k1\_finseq\_5 X0 X3 X1)))) \Rightarrow \\ & (k1\_finseq\_5 X0 (k1\_finseq\_5 X0 X3 X1) X2 = k1\_finseq\_5 X0 X3 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2. (m2\_finseq\_1 X2 X0) \Rightarrow (\forall X3. ((X3 \in k10\_xtuple\_0 \\ & X2) \wedge ((X1 \in k10\_xtuple\_0 X2) \wedge (r1\_xxreal\_0 (k4\_finseq\_4 X2 X3) ( \\ & k4\_finseq\_4 X2 X1)))) \Rightarrow (X3 \in k10\_xtuple\_0 (k1\_finseq\_5 X0 X2 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2. (m2\_finseq\_1 X2 X0) \Rightarrow ((X1 \in k10\_xtuple\_0 X2) \Rightarrow (k3\_finseq\_1 \\ & (k1\_finseq\_5 X0 X2 X1) = k4\_finseq\_4 X2 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1\_xboole\_0 X0) \wedge (m1\_finseq\_1 X1 X0)) \Rightarrow (m2\_finseq\_1 (k1\_finseq\_5 X0 X1 X2) X0) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m2\_finseq\_1 X1 X0) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 X0) \Rightarrow (\forall X3.(m1\_subset\_1 X3 X0) \Rightarrow \\ & (((X2 \in k10\_xtuple\_0 X1) \wedge ((X3 \in k10\_xtuple\_0 X1) \wedge (r1\_xxreal\_0 \\ & (k4\_finseq\_4 X1 X2) (k4\_finseq\_4 X1 X3)))) \Rightarrow (k4\_finseq\_4 (k1\_finseq\_5 \\ & X0 X1 X3) X2 = k4\_finseq\_4 X1 X2)))))) \end{aligned}$$