

# t7\_rlaffin1 (TMUgZdWbN- PADk2HNnxVeGZzx3yPho6NLPxP)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect\_1 : \iota \Rightarrow o$  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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_rusub\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_card\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 \\ X0) \wedge (l2\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0))) \Rightarrow (k5\_rusub\_4 X0 X1 (k4\_struct\_0 X0) = X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v3\_rlvect\_1 \\ X0) \wedge ((v4\_rlvect\_1 X0) \wedge (l2\_algstr\_0 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (u1\_struct\_0 X0)) \Rightarrow ((k1\_algstr\_0 X0 X1 (k4\_algstr\_0 X0 X1) = k4\_struct\_0 \\ X0) \wedge (k1\_algstr\_0 X0 (k4\_algstr\_0 X0 X1) X1 = k4\_struct\_0 X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_rlvect\_1 X0) \wedge (l2\_algstr\_0 \\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\ (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (k5\_rusub\_4 X0 X1 (k1\_algstr\_0 \\ X0 X2 X3) = k5\_rusub\_4 X0 (k5\_rusub\_4 X0 X1 X3) X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v3\_ordinal1 X0) \wedge (v3\_ordinal1 X1)) \Rightarrow ( \\ (r1\_ordinal1 X0 X1) \Leftrightarrow (r1\_tarski X0 X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge (l2\_algstr\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (r1\_ordinal1 (k1\_card\_1 (k5\_rusub\_4 \\ & X0 X1 X2)) (k1\_card\_1 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l2\_algstr\_0 \\ & X0)) \wedge ((m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \wedge (m1\_subset\_1 \\ & X2 (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 (k5\_rusub\_4 X0 X1 X2) (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l2\_algstr\_0 X0) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0))) \Rightarrow (m1\_subset\_1 (k4\_algstr\_0 X0 X1) (u1\_struct\_0 X0)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. v1\_card\_1 (k1\_card\_1 X0) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarSKI X0 X1) \wedge (r1\_tarSKI X1 X0)) \quad (9)$$

Assume the following.

$$\forall X0. (v1\_card\_1 X0) \Rightarrow (v3\_ordinal1 X0) \quad (10)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\ & X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge (l2\_algstr\_0 X0)))))) \Rightarrow \\ & (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)) \Rightarrow (k1\_card\_1 X2 = k1\_card\_1 ( \\ & k5\_rusub\_4 X0 X2 X1)))))) \end{aligned}$$