

t9\_rlvect\_4  
(TMNPyD66qbMzJFrnHQpJaevSQpfju6JhNAi)

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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  $v5\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v6\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v7\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v8\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_struct\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_rlvect\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_rlsub\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_rlsub\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_rlsub\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_rlvect\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (v13\_algstr\_0 X0) \wedge (v2\_rlvect\_1 X0) \wedge (v3\_rlvect\_1 X0) \wedge (v4\_rlvect\_1 X0) \wedge (v5\_rlvect\_1 X0) \wedge \\ & ((v6\_rlvect\_1 X0) \wedge (v7\_rlvect\_1 X0) \wedge (v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\ & (k3\_rlsub\_1 X0 X1 (k1\_rlsub\_1 X0) = k6\_domain\_1 (u1\_struct\_0 X0) X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (v13\_algstr\_0 X0) \wedge (v2\_rlvect\_1 X0) \wedge (v3\_rlvect\_1 X0) \wedge (v4\_rlvect\_1 X0) \wedge (v5\_rlvect\_1 X0) \wedge \\ & ((v6\_rlvect\_1 X0) \wedge (v7\_rlvect\_1 X0) \wedge (v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\ & (\forall X2. (m1\_rlsub\_1 X2 X0) \Rightarrow (X1 \in k3\_rlsub\_1 X0 X1 X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2\_struct\_0 X1) \wedge (v13\_algstr\_0 X1) \wedge \\ & ((v2\_rlvect\_1 X1) \wedge (v3\_rlvect\_1 X1) \wedge (v4\_rlvect\_1 X1) \wedge (v5\_rlvect\_1 X1) \wedge \\ & (v6\_rlvect\_1 X1) \wedge (v7\_rlvect\_1 X1) \wedge (v8\_rlvect\_1 X1) \wedge \\ & (l1\_rlvect\_1 X1)))))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X1))) \Rightarrow ((X0 \in X2) \Rightarrow (r1\_struct\_0 (k1\_rlvect\_3 X1 X2) X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0)\wedge(v13\_algstr\_0 \\ X0)\wedge(v2\_rlvect\_1 X0)\wedge(v3\_rlvect\_1 X0)\wedge(v4\_rlvect\_1 X0)\wedge \\ ((v5\_rlvect\_1 X0)\wedge(v6\_rlvect\_1 X0)\wedge(v7\_rlvect\_1 X0)\wedge(v8\_rlvect\_1 \\ X0)\wedge(l1\_rlvect\_1 X0))))))\wedge((m1\_subset\_1 X1 (u1\_struct\_0 \\ X0))\wedge(m1\_rlsub\_1 X2 X0))\Rightarrow(m1\_subset\_1 (k3\_rlsub\_1 X0 X1 X2) ( \\ k1\_zfmisc\_1 (u1\_struct\_0 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0)\wedge(v13\_algstr\_0 X0)\wedge(v2\_rlvect\_1 \\ X0)\wedge(v3\_rlvect\_1 X0)\wedge(v4\_rlvect\_1 X0)\wedge(v5\_rlvect\_1 X0)\wedge \\ ((v6\_rlvect\_1 X0)\wedge(v7\_rlvect\_1 X0)\wedge(v8\_rlvect\_1 X0)\wedge(l1\_rlvect\_1 \\ X0))))))\Rightarrow((v1\_rlvect\_1 (k1\_rlsub\_1 X0))\wedge(m1\_rlsub\_1 (k1\_rlsub\_1 \\ X0) X0)) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0)\wedge(v13\_algstr\_0 X0)\wedge(v2\_rlvect\_1 \\ X0)\wedge(v3\_rlvect\_1 X0)\wedge(v4\_rlvect\_1 X0)\wedge(v5\_rlvect\_1 X0)\wedge \\ ((v6\_rlvect\_1 X0)\wedge(v7\_rlvect\_1 X0)\wedge(v8\_rlvect\_1 X0)\wedge(l1\_rlvect\_1 \\ X0))))))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0))\Rightarrow \\ (r1\_struct\_0 (k1\_rlvect\_3 X0 (k6\_domain\_1 (u1\_struct\_0 X0) X1)) \\ X1)) \end{aligned}$$