

t12\_waybel\_9  
(TMMsV4iGm17F8WSLpxBmN4R1UpRPP5ZZqYV)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_waybel\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v6\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_toler\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 \\ & X0)) \wedge (((\neg v2\_struct\_0 X1) \wedge (l1\_waybel\_0 X1 X0)) \wedge (m1\_subset\_1 \\ & X2 (u1\_struct\_0 X1)))) \Rightarrow ((v6\_waybel\_0 (k4\_waybel\_9 X0 X1 X2) X0) \wedge \\ & (l1\_waybel\_0 (k4\_waybel\_9 X0 X1 X2) X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2\_struct\_0 X1) \wedge (l1\_waybel\_0 X1 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 \\ & X2 (u1\_struct\_0 X1)) \Rightarrow (\forall X3. ((v6\_waybel\_0 X3 X0) \wedge (l1\_waybel\_0 \\ & X3 X0)) \Rightarrow ((X3 = k4\_waybel\_9 X0 X1 X2) \Leftrightarrow ((\forall X4. (X4 \in u1\_struct\_0 \\ & X3) \Leftrightarrow (\exists X5. (m1\_subset\_1 X5 (u1\_struct\_0 X1)) \wedge ((X5 = X4) \wedge \\ & (r1\_orders\_2 X1 X2 X5)))) \wedge ((r2\_relset\_1 (u1\_struct\_0 X3) (u1\_struct\_0 \\ & X3) (u1\_orders\_2 X3) (k1\_toler\_1 (u1\_orders\_2 X1) (u1\_struct\_0 \\ & X3))) \wedge (u1\_waybel\_0 X0 X3 = k2\_partfun1 (u1\_struct\_0 X1) (u1\_struct\_0 \\ & X0) (u1\_waybel\_0 X0 X1) (u1\_struct\_0 X3)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (4)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2\_struct\_0 X1) \wedge (l1\_waybel\_0 X1 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 \\ X2 (u1\_struct\_0 X1)) \Rightarrow (u1\_struct\_0 (k4\_waybel\_9 X0 X1 X2) = ReplSep \\ & (toset (\lambda X3 : \iota.m1\_subset\_1 X3 (u1\_struct\_0 X1))) (\lambda X3 : \\ & \iota.r1\_orders\_2 X1 X2 X3) (\lambda X3 : \iota.X3)))) \end{aligned}$$