

## t21\_waybel28

(TMHPd2jVWADKKihfcMKBbLvvcFSxRzAgYzT)

October 27, 2020

Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $m4\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_pre\_topc : \iota \Rightarrow \iota$  be given. Let  $k13\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v7\_waybel\_0 : \iota \Rightarrow o$  be given. Let  $l1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \wedge \\ & (m4\_yellow\_6 X1 X0)) \Rightarrow ((v1\_pre\_topc (k13\_yellow\_6 X0 X1)) \wedge (v2\_pre\_topc \\ & (k13\_yellow\_6 X0 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \wedge \\ & (m4\_yellow\_6 X1 X0)) \Rightarrow ((v1\_pre\_topc (k13\_yellow\_6 X0 X1)) \wedge (l1\_pre\_topc \\ & (k13\_yellow\_6 X0 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (\forall X1. \\ & (m4\_yellow\_6 X1 X0) \Rightarrow (\forall X2. ((v1\_pre\_topc X2) \wedge (l1\_pre\_topc \\ & X2)) \Rightarrow ((X2 = k13\_yellow\_6 X0 X1) \Leftrightarrow ((u1\_struct\_0 X2 = u1\_struct\_0 \\ & X0) \wedge (u1\_pre\_topc X2 = ReplSep (toset (\lambda X3 : \iota. m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) (\lambda X3 : \iota. \forall X4. ( \\ & m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow ((X4 \in X3) \Rightarrow (\forall X5. ((\neg v2\_struct\_0 \\ & X5) \wedge ((v4\_orders\_2 X5) \wedge ((v7\_waybel\_0 X5) \wedge (l1\_waybel\_0 X5 X0)))) \Rightarrow \\ & ((k4\_tarski X5 X4 \in X1) \Rightarrow (r1\_waybel\_0 X0 X5 X3)))))) (\lambda X3 : \iota. \\ & X3)))))) \end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (\forall X1. \\ & (m4\_yellow\_6 X1 X0) \Rightarrow (\forall X2.(m4\_yellow\_6 X2 X0) \Rightarrow ((r1\_tarski \\ & X1 X2) \Rightarrow (r1\_tarski (u1\_pre\_topc (k13\_yellow\_6 X0 X2)) (u1\_pre\_topc \\ & (k13\_yellow\_6 X0 X1)))))) \end{aligned}$$