

# t16\_waybel\_8 (TMRngBCtJCj4xpkDhijxbRpZZEhBX6rS47C)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v24\_waybel\_0 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_waybel\_8 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k2\_waybel\_8 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow ((v24\_waybel\_0 X0) \Leftrightarrow (\forall X1. ((\neg \\ v1\_xboole\_0 X1) \wedge ((v1\_waybel\_0 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0)))))) \Rightarrow (r1\_yellow\_0 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1\_orders\_2 X0) \Rightarrow (\forall X1. (l1\_orders\_2 X1) \Rightarrow (( \\ g1\_orders\_2 (u1\_struct\_0 X0) (u1\_orders\_2 X0) = g1\_orders\_2 (u1\_struct\_0 \\ X1) (u1\_orders\_2 X1)) \Rightarrow (\forall X2. (r1\_yellow\_0 X0 X2) \Rightarrow (k1\_yellow\_0 \\ X0 X2 = k1\_yellow\_0 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v24\_waybel\_0 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1. (( \\ \neg v2\_struct\_0 X1) \wedge ((v3\_orders\_2 X1) \wedge ((v5\_orders\_2 X1) \wedge ((v24\_waybel\_0 \\ X1) \wedge (l1\_orders\_2 X1)))))) \Rightarrow ((g1\_orders\_2 (u1\_struct\_0 X0) (u1\_orders\_2 \\ X0) = g1\_orders\_2 (u1\_struct\_0 X1) (u1\_orders\_2 X1)) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 \\ (u1\_struct\_0 X1)) \Rightarrow ((X2 = X3) \Rightarrow (k2\_waybel\_8 X0 X2 = k2\_waybel\_8 X1 \\ X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ X0 X0))) \Rightarrow (\forall X2. \forall X3. (g1\_orders\_2 X0 X1 = g1\_orders\_2 \\ X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (m1\_subset\_1 (u1\_orders\_2 X0) (k1\_zfmisc\_1 \\ (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge \\ (l1\_orders\_2 X0))) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 X0))) \Rightarrow (m1\_subset\_1 \\ (k2\_waybel\_8 X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge (l1\_orders\_2 \\ X0))) \Rightarrow ((v1\_waybel\_8 X0) \Leftrightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow (X1 = k1\_yellow\_0 X0 (k2\_waybel\_8 X0 X1)))) \end{aligned} \quad (7)$$

**Theorem 1**

$$\begin{aligned} \forall X0. (((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge (v24\_waybel\_0 X0) \wedge (l1\_orders\_2 X0))))) \Rightarrow (\forall X1. (( \\ \neg v2\_struct\_0 X1) \wedge ((v3\_orders\_2 X1) \wedge ((v5\_orders\_2 X1) \wedge (v24\_waybel\_0 \\ X1) \wedge (l1\_orders\_2 X1))))) \Rightarrow (((g1\_orders\_2 (u1\_struct\_0 X0) (u1\_orders\_2 \\ X0) = g1\_orders\_2 (u1\_struct\_0 X1) (u1\_orders\_2 X1)) \wedge ((v1\_waybel\_8 \\ X0) \wedge (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((\neg v1\_xboole\_0 \\ (k2\_waybel\_8 X0 X2)) \wedge (v1\_waybel\_0 (k2\_waybel\_8 X0 X2) X0)))))) \Rightarrow \\ (v1\_waybel\_8 X1))) \end{aligned}$$