

t17\_waybel\_3  
(TMULH6WLJF3sE4fUajYG9R6ymmwmSqZsEtR)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  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  $v8\_struct\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_waybel\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $r1\_waybel\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r3\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\ & X0) \wedge ((v5\_orders\_2 X0) \wedge ((v24\_waybel\_0 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\ & (\forall X1. ((\neg v1\_xboole\_0 X1) \wedge ((v1\_finset\_1 X1) \wedge ((v1\_waybel\_0 \\ & X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \Rightarrow (k1\_yellow\_0 \\ & X0 X1 \in X1)) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (l1\_struct\_0 X0) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (l1\_orders\_2 X0) \Rightarrow (m1\_subset\_1 (k1\_yellow\_0 X0 X1) (u1\_struct\_0 X0)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge (l1\_orders\_2 \\ & X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow ((v1\_waybel\_3 \\ & X1 X0) \Leftrightarrow (r1\_waybel\_3 X0 X1 X1))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge (l1\_orders\_2 \\
& \quad X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\
& \quad (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_waybel\_3 X0 X1 X2) \Leftrightarrow (\forall X3. \\
& \quad ((\neg v1\_xboole\_0 X3) \wedge ((v1\_waybel\_0 X3 X0) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\
& \quad \quad (u1\_struct\_0 X0)))))) \Rightarrow (\neg(r3\_orders\_2 X0 X2 (k1\_yellow\_0 X0 X3)) \wedge \\
& \quad (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow (\neg(X4 \in X3) \wedge (r3\_orders\_2 \\
& \quad \quad X0 X1 X4)))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(l1\_struct\_0 X0) \Rightarrow ((v8\_struct\_0 X0) \Leftrightarrow (v1\_finset\_1 (u1\_struct\_0 X0))) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_finset\_1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (v1\_finset\_1 X1)) \tag{7}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\
& \quad X0) \wedge ((v5\_orders\_2 X0) \wedge ((v24\_waybel\_0 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\
& \quad ((v8\_struct\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\
& \quad \quad (v1\_waybel\_3 X1 X0)))
\end{aligned}$$