

## t35\_waybel\_6

(TMci6K3HZJ4xdrMGMVCqdtNyu2p6RP7g4s1)

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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  $v1\_yellow\_0 : \iota \Rightarrow o$  be given. Let  $v1\_lattice3 : \iota \Rightarrow o$  be given. Let  $v2\_lattice3 : \iota \Rightarrow o$  be given. Let  $v3\_waybel\_3 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v2\_waybel\_1 : \iota \Rightarrow o$  be given. Let  $v4\_waybel\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_waybel\_6 : \iota \Rightarrow \iota$  be given. Let  $v3\_lattice3 : \iota \Rightarrow o$  be given. Let  $v2\_waybel\_2 : \iota \Rightarrow o$  be given. Let  $k3\_waybel\_6 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v5\_waybel\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_waybel\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v24\_waybel\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r3\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_waybel\_3 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. (& (v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0)))))) \Rightarrow ((v4\_waybel\_6 (k4\_waybel\_6 X0) X0) \Rightarrow ( \\ & (v2\_waybel\_1 X0) \wedge (v2\_waybel\_2 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (& (v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v2\_waybel\_1 X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0)))))) \Rightarrow (k4\_waybel\_6 X0 = k3\_waybel\_6 X0) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (& (v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v2\_waybel\_1 X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow ((v5\_waybel\_6 X1 X0) \Leftrightarrow (v2\_waybel\_6 X1 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v1\_yellow\_0 X0) \wedge ((v24\_waybel\_0 X0) \wedge ((v1\_lattice3 X0) \wedge \\ ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v4\_waybel\_6 X1 X0) \Leftrightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ (u1\_struct\_0 X0)) \Rightarrow (\neg(\neg r3\_orders\_2 X0 X3 X2) \wedge (\forall X4.(m1\_subset\_1 \\ X4 (u1\_struct\_0 X0)) \Rightarrow (\neg(X4 \in X1) \wedge ((r3\_orders\_2 X0 X2 X4) \wedge (\neg r3\_orders\_2 \\ X0 X3 X4)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v1\_yellow\_0 X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge \\ ((v3\_waybel\_3 X0) \wedge (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ X0)) \Rightarrow (\neg(\neg r3\_orders\_2 X0 X2 X1) \wedge (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\ X0)) \Rightarrow (\neg(v2\_waybel\_6 X3 X0) \wedge ((r3\_orders\_2 X0 X1 X3) \wedge (\neg r3\_orders\_2 \\ X0 X2 X3))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (m1\_subset\_1 (k3\_waybel\_6 X0) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((X1 = k4\_waybel\_6 \\ X0) \Leftrightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((X2 \in X1) \Leftrightarrow \\ (v5\_waybel\_6 X2 X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge (v3\_waybel\_3 X0))) \Rightarrow ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v24\_waybel\_0 X0) \wedge (v2\_waybel\_3 X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v2\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_orders\_2 X0) \Rightarrow (((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 \\ X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v1\_lattice3 X0) \wedge \\ ((v1\_yellow\_0 X0) \wedge (v24\_waybel\_0 X0))))))) \Rightarrow ((\neg v2\_struct\_0 X0) \wedge \\ ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 X0) \wedge (v3\_lattice3 \\ X0)))))) \end{aligned} \quad (10)$$

**Theorem 1**

$$\forall X0.((v3\_orders\_2 X0)\wedge((v4\_orders\_2 X0)\wedge((v5\_orders\_2 X0)\wedge((v1\_yellow\_0 X0)\wedge((v1\_lattice3 X0)\wedge((v2\_lattice3 X0)\wedge((v3\_waybel\_3 X0)\wedge(l1\_orders\_2 X0))))))))\Rightarrow((v2\_waybel\_1 X0)\Leftrightarrow(v4\_waybel\_6 (k4\_waybel\_6 X0) X0))$$