

## t37\_waybel12

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Let  $v7\_struct\_0 : \iota \Rightarrow o$  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  $v3\_yellow\_0 : \iota \Rightarrow o$  be given. Let  $v2\_lattice3 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v2\_waybel12 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_yellow\_0 : \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_yellow\_0 : \iota \Rightarrow o$  be given. Let  $k11\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_lattice3 : \iota \Rightarrow o$  be given. Let  $k10\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_yellow\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v1\_yellow\_0 \\ X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow (((v2\_lattice3 X0) \Rightarrow (k11\_lattice3 X0 (k3\_yellow\_0 X0) X1 = \\ k3\_yellow\_0 X0)) \wedge (((v1\_lattice3 X0) \wedge ((v3\_orders\_2 X0) \wedge (v4\_orders\_2 \\ X0)) \Rightarrow (k10\_lattice3 X0 (k3\_yellow\_0 X0) X1 = X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (l1\_struct\_0 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow ((v2\_waybel12 X1 X0) \Leftrightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\neg (X2 \neq k3\_yellow\_0 X0) \wedge (k11\_lattice3 \\ X0 X1 X2 = k3\_yellow\_0 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1\_struct\_0 X0) \Rightarrow ((v7\_struct\_0 X0) \Leftrightarrow (\forall X1. ( \\ m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 \\ (u1\_struct\_0 X0)) \Rightarrow (X1 = X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow ((v3\_yellow\_0 X0) \Rightarrow ((v1\_yellow\_0 \\ X0) \wedge (v2\_yellow\_0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v2\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \quad (6)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\ X0) \wedge ((v5\_orders\_2 X0) \wedge ((v3\_yellow\_0 X0) \wedge ((v2\_lattice3 X0) \wedge \\ (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ X0)) \Rightarrow (\neg (v2\_waybel12 X1 X0) \wedge (X1 = k3\_yellow\_0 X0))) \end{aligned}$$