t30_waybel15 (TM-JAPpk1NqHPZc1p7VaKXZLBoctvQ4DrgPJ)

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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 $v1\_lattice3 : \iota \Rightarrow o$ be given. Let $v2\_lattice3 : \iota \Rightarrow o$ be given. Let $v11\_waybel\_1 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v3\_waybel\_8 : \iota \Rightarrow o$ be given. Let $v3\_waybel\_3 : \iota \Rightarrow o$ be given. Let $k7\_lattice3 : \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $r5\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0))))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v3\_orders\_2\ X1) \wedge ((v4\_orders\_2\ X1) \wedge ((v5\_orders\_2\ X1) \wedge (l1\_orders\_2\ X1))))) \Rightarrow (((r5\_waybel\_1\ X0\ X1) \wedge (v3\_waybel\_3\ X0)) \Rightarrow (v3\_waybel\_3\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v11\_waybel\_1\ X0) \wedge (l1\_orders\_2\ X0))))))) \Rightarrow (r5\_waybel\_1\ X0\ (k7\_lattice3\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v11\_waybel\_1\ X0) \wedge (l1\_orders\_2\ X0))))))) \Rightarrow ((v3\_waybel\_8\ X0) \Leftrightarrow (v3\_waybel\_3\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow ((\neg v2\_struct\_0\ (k7\_lattice3\ X0)) \wedge (v1\_orders\_2\ (k7\_lattice3\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0)))) \Rightarrow ((v1\_orders\_2\ (k7\_lattice3\ X0)) \wedge ((v3\_orders\_2\ (k7\_lattice3\ X0)) \wedge ((v4\_orders\_2\ (k7\_lattice3\ X0)) \wedge (v5\_orders\_2\ (k7\_lattice3\ X0))))) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow ((v1\_orders\_2\ (k7\_lattice3\ X0)) \wedge (l1\_orders\_2\ (k7\_lattice3\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow ((v1\_lattice3\ X0) \Rightarrow (\neg v2\_struct\_0\ X0)) \tag{7}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v11\_waybel\_1\ X0) \wedge (l1\_orders\_2\ X0)))))) \Rightarrow ((v3\_waybel\_8\ X0) \Leftrightarrow ((v3\_waybel\_3\ X0) \wedge (v3\_waybel\_3\ (k7\_lattice3\ X0))))$$