

## t32\_waybel16

(TMZ8K2mZ5M8rbkTYLmo2NBxX8SJ1u72y6pf)

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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  $v2\_waybel\_8 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_waybel\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_waybel16 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r3\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_waybel16 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v24\_waybel\_0 : \iota \Rightarrow o$  be given. Let  $v1\_waybel\_8 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_yellow\_0 X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge \\ & ((v2\_waybel\_8 X0) \wedge (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ & X0)) \Rightarrow (\neg(\neg r3\_orders\_2 X0 X2 X1) \wedge (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\ & X0)) \Rightarrow (\neg(v1\_waybel16 X3 X0) \wedge ((r3\_orders\_2 X0 X1 X3) \wedge (\neg r3\_orders\_2 \\ & X0 X2 X3))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\ & X0) \wedge ((v5\_orders\_2 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v4\_waybel\_6 X1 X0) \Rightarrow (r1\_tarski \\ & (k1\_waybel16 X0) X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v1\_yellow\_0 X0) \wedge ((v24\_waybel\_0 X0) \wedge ((v1\_lattice3 X0) \wedge \\ ((v2\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v4\_waybel\_6 X1 X0) \Leftrightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ (u1\_struct\_0 X0)) \Rightarrow (\neg(\neg r3\_orders\_2 X0 X3 X2) \wedge (\forall X4.(m1\_subset\_1 \\ X4 (u1\_struct\_0 X0)) \Rightarrow (\neg(X4 \in X1) \wedge ((r3\_orders\_2 X0 X2 X4) \wedge (\neg r3\_orders\_2 \\ X0 X3 X4)))))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (m1\_subset\_1 \\ (k1\_waybel16 X0) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((X1 = k1\_waybel16 \\ X0) \Leftrightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((X2 \in X1) \Leftrightarrow \\ (v1\_waybel16 X2 X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_orders\_2 X0) \Rightarrow (((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 \\ X0) \wedge (v2\_waybel\_8 X0))) \Rightarrow ((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge \\ ((v24\_waybel\_0 X0) \wedge (v1\_waybel\_8 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow ((v2\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \quad (7)$$

### Theorem 1

$$\begin{aligned} \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ X0) \wedge ((v1\_yellow\_0 X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge \\ ((v2\_waybel\_8 X0) \wedge (l1\_orders\_2 X0)))))))) \Rightarrow ((v4\_waybel\_6 (k1\_waybel16 \\ X0) X0) \wedge (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0))) \Rightarrow ((v4\_waybel\_6 X1 X0) \Rightarrow (r1\_tarski (k1\_waybel16 X0) X1)))) \end{aligned}$$