

## t36\_waybel16

(TMUwZT6UYVoLxucy5joabipPVWDLNhHGvkG)

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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  $v3\_lattice3 : \iota \Rightarrow o$  be given. Let  $v2\_waybel\_8 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_waybel\_8 : \iota \Rightarrow \iota$  be given. Let  $r3\_waybel\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_waybel16 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
 & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\
 & ((v2\_waybel\_8 X0) \wedge (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\
 & X1 (u1\_struct\_0 X0)) \Rightarrow ((v1\_waybel16 X1 X0) \Rightarrow (X1 = k2\_yellow\_0 X0 \\
 & (ReplSep (toset (\lambda X2 : \iota.m1\_subset\_1 X2 (u1\_struct\_0 X0))) \\
 & (\lambda X2 : \iota.(X2 \in k6\_waybel\_0 X0 X1) \wedge (\exists X3.(m1\_subset\_1 \\
 & X3 (u1\_struct\_0 X0)) \wedge ((X3 \in u1\_struct\_0 (k1\_waybel\_8 X0)) \wedge (r3\_waybel\_4 \\
 & X0 (k6\_subset\_1 (u1\_struct\_0 X0) (k6\_waybel\_0 X0 X3)) X2)))))) (\lambda X2 : \\
 & \iota.X2))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\
 & X0) \wedge ((v5\_orders\_2 X0) \wedge ((v3\_lattice3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow \\
 & (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
 & (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (((v1\_waybel16 \\
 & X2 X0) \wedge (X2 = k2\_yellow\_0 X0 X1)) \Rightarrow (X2 \in X1))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow ((\exists X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \wedge (r3\_waybel\_4 \\ & X0 (k6\_subset\_1 (u1\_struct\_0 X0) (k6\_waybel\_0 X0 X2)) X1)) \Rightarrow (v1\_waybel16 \\ & X1 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0 : \iota \Rightarrow o. \forall X1. m1\_subset\_1 (ReplSep (toset ( \\ & \lambda X2 : \iota. m1\_subset\_1 X2 X1)) (\lambda X2 : \iota. X0 X2) (\lambda X2 : \iota. \\ & X2)) (k1\_zfmisc\_1 X1) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow ((v1\_lattice3 X0) \Rightarrow (\neg v2\_struct\_0 X0)) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & ((v2\_waybel\_8 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 (u1\_struct\_0 X0)) \Rightarrow ((\exists X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ & X0)) \wedge ((X2 \in u1\_struct\_0 (k1\_waybel\_8 X0)) \wedge (r3\_waybel\_4 X0 (k6\_subset\_1 \\ & (u1\_struct\_0 X0) (k6\_waybel\_0 X0 X2)) X1))) \Leftrightarrow (v1\_waybel16 X1 X0))) \end{aligned}$$