

## t39\_waybel\_6

(TMUcFmKWtTV4j4VJM3FE33Rqj68NJBnPUPn)

October 27, 2020

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  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v1\_waybel\_5 : \iota \Rightarrow o$  be given. Let  $v2\_waybel\_1 : \iota \Rightarrow o$  be given. Let  $v3\_waybel\_3 : \iota \Rightarrow o$  be given. Let  $k7\_lattice3 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v6\_waybel\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0)))))) \Rightarrow ((v1\_waybel\_5 X0) \Leftrightarrow ((v3\_waybel\_3 X0) \wedge \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\exists X2.(m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)) \wedge ((X1 = k1\_yellow\_0 X0 X2) \wedge ( \\ & \forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((X3 \in X2) \Rightarrow (v6\_waybel\_6 \\ & X3 X0)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0)))))) \Rightarrow (((v2\_waybel\_1 X0) \wedge ((v3\_waybel\_3 X0) \wedge \\ & (v3\_waybel\_3 (k7\_lattice3 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 \\ & (u1\_struct\_0 X0)) \Rightarrow (\exists X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 ( \\ & u1\_struct\_0 X0)) \wedge ((X1 = k1\_yellow\_0 X0 X2) \wedge (\forall X3.(m1\_subset\_1 \\ & X3 (u1\_struct\_0 X0)) \Rightarrow ((X3 \in X2) \Rightarrow (v6\_waybel\_6 X3 X0))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & ((v1\_waybel\_5 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow ((v2\_waybel\_1 X0) \wedge \\ & ((v3\_waybel\_3 X0) \wedge (v3\_waybel\_3 (k7\_lattice3 X0)))) \end{aligned} \quad (3)$$

**Theorem 1**

$$\forall X0.((v3\_orders\_2 X0)\wedge((v4\_orders\_2 X0)\wedge((v5\_orders\_2 X0)\wedge((v1\_lattice3 X0)\wedge((v2\_lattice3 X0)\wedge((v3\_lattice3 X0)\wedge(l1\_orders\_2 X0)))))))\Rightarrow((v1\_waybel\_5 X0)\Leftrightarrow((v2\_waybel\_1 X0)\wedge((v3\_waybel\_3 X0)\wedge(v3\_waybel\_3 (k7\_lattice3 X0))))))$$