

t38\_waybel\_6  
(TMd6b32kkTPc8v22r2d1E6uQhAMs5PgSrdG)

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

$$\begin{aligned}
 & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
 & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\
 & (l1\_orders\_2 X0)))))) \Rightarrow (((v2\_waybel\_1 X0) \wedge ((v3\_waybel\_3 X0) \wedge \\
 & (v3\_waybel\_3 (k7\_lattice3 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 \\
 & (u1\_struct\_0 X0)) \Rightarrow (\exists X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 ( \\
 & u1\_struct\_0 X0)))) \wedge ((X1 = k1\_yellow\_0 X0 X2) \wedge (\forall X3.(m1\_subset\_1 \\
 & X3 (u1\_struct\_0 X0)) \Rightarrow ((X3 \in X2) \Rightarrow (v6\_waybel\_6 X3 X0))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
 & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\
 & ((v1\_waybel\_5 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow ((v2\_waybel\_1 X0) \wedge \\
 & ((v3\_waybel\_3 X0) \wedge (v3\_waybel\_3 (k7\_lattice3 X0))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
 & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\
 & ((v3\_waybel\_3 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow ((\forall X1.(m1\_subset\_1 \\
 & X1 (u1\_struct\_0 X0)) \Rightarrow (\exists X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\
 & (u1\_struct\_0 X0)))) \wedge ((X1 = k1\_yellow\_0 X0 X2) \wedge (\forall X3.(m1\_subset\_1 \\
 & X3 (u1\_struct\_0 X0)) \Rightarrow ((X3 \in X2) \Rightarrow (v6\_waybel\_6 X3 X0)))))) \Rightarrow (v1\_waybel\_5 \\
 & X0))
 \end{aligned} \tag{3}$$

**Theorem 1**

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