

# l64\_waybel11

(TMKdmgvccixfRC4JqttZEd6kW2ueHMg3RL9)

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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  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_waybel\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v24\_waybel\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
 & X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v3\_orders\_2 \\
 & X1) \wedge ((v5\_orders\_2 X1) \wedge (l1\_orders\_2 X1)))) \Rightarrow (((g1\_orders\_2 ( \\
 & u1\_struct\_0 X0) (u1\_orders\_2 X0) = g1\_orders\_2 (u1\_struct\_0 X1) \\
 & (u1\_orders\_2 X1)) \wedge (v24\_waybel\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 \\
 & X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\
 & X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 X1)) \Rightarrow (\forall X5. \\
 & (m1\_subset\_1 X5 (u1\_struct\_0 X1)) \Rightarrow (((X2 = X4) \wedge ((X3 = X5) \wedge (r1\_waybel\_3 \\
 & X0 X2 X3))) \Rightarrow (r1\_waybel\_3 X1 X4 X5)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v5\_orders\_2 \\
 & X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow ((v24\_waybel\_0 X0) \Leftrightarrow (\forall X1.((\neg \\
 & v1\_xboole\_0 X1) \wedge ((v1\_waybel\_0 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
 & (u1\_struct\_0 X0)))))) \Rightarrow (r1\_yellow\_0 X0 X1))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v5\_orders\_2 X0) \wedge ((v3\_lattice3 \\
 & X0) \wedge (l1\_orders\_2 X0)))) \Rightarrow (\forall X1.(r1\_yellow\_0 X0 X1) \wedge (r2\_yellow\_0 \\
 & X0 X1))
 \end{aligned} \tag{3}$$

Assume the following.

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

**Theorem 1**

$$\begin{aligned} & \forall X0.((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 X0) \wedge ((v5\_orders\_2 \\ & X0) \wedge ((v1\_lattice3 X0) \wedge ((v2\_lattice3 X0) \wedge ((v3\_lattice3 X0) \wedge \\ & (l1\_orders\_2 X0))))))) \Rightarrow (\forall X1.((v3\_orders\_2 X1) \wedge ((v4\_orders\_2 \\ & X1) \wedge ((v5\_orders\_2 X1) \wedge ((v1\_lattice3 X1) \wedge ((v2\_lattice3 X1) \wedge \\ & ((v3\_lattice3 X1) \wedge (l1\_orders\_2 X1))))))) \Rightarrow ((g1\_orders\_2 (u1\_struct\_0 \\ & X0) (u1\_orders\_2 X0) = g1\_orders\_2 (u1\_struct\_0 X1) (u1\_orders\_2 \\ & X1)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((r1\_waybel\_3 X0 X2 X3) \Rightarrow (\forall X4. \\ & (m1\_subset\_1 X4 (u1\_struct\_0 X1)) \Rightarrow (\forall X5.(m1\_subset\_1 X5 \\ & (u1\_struct\_0 X1)) \Rightarrow (((X2 = X4) \wedge (X3 = X5)) \Rightarrow (r1\_waybel\_3 X1 X4 X5)))))))))) \end{aligned}$$