

l9\_yellow\_6 (TMMtS-  
FiZBkk5VoeEHPMfCKQmbJV27FDWLz7)

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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  $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(l1\_orders\_2 X1) \Rightarrow (( \\
 & g1\_orders\_2 (u1\_struct\_0 X0) (u1\_orders\_2 X0) = g1\_orders\_2 (u1\_struct\_0 \\
 & X1) (u1\_orders\_2 X1)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\
 & X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4. \\
 & (m1\_subset\_1 X4 (u1\_struct\_0 X1)) \Rightarrow (\forall X5.(m1\_subset\_1 X5 \\
 & (u1\_struct\_0 X1)) \Rightarrow (((X2 = X4) \wedge (X3 = X5)) \Rightarrow (((r1\_orders\_2 X0 X2 X3) \Rightarrow \\
 & (r1\_orders\_2 X1 X4 X5)) \wedge ((r2\_orders\_2 X0 X2 X3) \Rightarrow (r2\_orders\_2 X1 \\
 & X4 X5))))))))))
 \end{aligned} \tag{1}$$

**Theorem 1**

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