

# l4\_roughs\_1

(TMFbaBk3g2ZQYUMoDa1zjptiqbGaNfYzs63)

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Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v3\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_orders\_3 : \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_orders\_2 X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (((v3\_orders\_2 X0) \wedge (k2\_struct\_0 \\ X0 = k6\_domain\_1 (u1\_struct\_0 X0) X1)) \Rightarrow (v1\_orders\_3 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (l1\_struct\_0 X0) \quad (2)$$

Assume the following.

$$\forall X0. (l1\_struct\_0 X0) \Rightarrow (k2\_struct\_0 X0 = u1\_struct\_0 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow ((v7\_struct\_0 \\ X0) \Leftrightarrow (\exists X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (u1\_struct\_0 \\ X0 = k6\_domain\_1 (u1\_struct\_0 X0) X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow ((v2\_struct\_0 X0) \Rightarrow (v1\_orders\_3 X0)) \quad (5)$$

**Theorem 1**

$$\forall X0. (l1\_orders\_2 X0) \Rightarrow (((v3\_orders\_2 X0) \wedge (v7\_struct\_0 \\ X0)) \Rightarrow (v1\_orders\_3 X0))$$