

## t39\_lukasi\_1

(TMJiukCH5v4Lpz91QKZAmmPX9YEuigGwAuk)

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Let  $m1\_qc\_lang1 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k3\_cqc\_lang : \iota \Rightarrow \iota$  be given. Let  $k8\_cqc\_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_cqc\_lang : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_cqc\_the1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k9\_qc\_lang1 \\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k9\_qc\_lang1 \\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow ((k8\_cqc\_lang\ X0\ X1\ X2 \in k4\_cqc\_the1\ X0) \Leftrightarrow \\ (k8\_cqc\_lang\ X0\ (k6\_cqc\_lang\ X0\ (k6\_cqc\_lang\ X0\ X1))\ X2 \in k4\_cqc\_the1 \\ X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k9\_qc\_lang1 \\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k9\_qc\_lang1 \\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow ((k8\_cqc\_lang\ X0\ X1\ X2 \in k4\_cqc\_the1\ X0) \Leftrightarrow \\ (k8\_cqc\_lang\ X0\ (k6\_cqc\_lang\ X0\ X2)\ (k6\_cqc\_lang\ X0\ X1) \in k4\_cqc\_the1 \\ X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge \\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 \\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\neg v1\_xboole\_0\ (k3\_cqc\_lang\ X0)) \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((m1\_qc\_lang1\ X0) \wedge (m1\_subset\_1\ X1\ (k3\_cqc\_lang \\ X0))) \Rightarrow (m2\_subset\_1\ (k6\_cqc\_lang\ X0\ X1)\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang \\ X0)) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (m1\_subset\_1\ (k3\_cqc\_lang\ X0)\ (k1\_zfmisc\_1\ (k9\_qc\_lang1\ X0))) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \Rightarrow (v1\_xboole\_0\ X1)) \quad (7)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k9\_qc\_lang1\ X0)\ (k3\_cqc\_lang\ X0)) \Rightarrow ((k8\_cqc\_lang\ X0\ X1\ (k6\_cqc\_lang\ X0\ X2) \in k4\_cqc\_the1\ X0) \Rightarrow (k8\_cqc\_lang\ X0\ X2\ (k6\_cqc\_lang\ X0\ X1) \in k4\_cqc\_the1\ X0)))) \end{aligned}$$