

t36\_goedelcp  
(TMXRqEXpynaWobEJZebRkwCcdPjz71Frq2k)

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Let  $m1\_qc\_lang1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_cqc\_lang : \iota \Rightarrow \iota$  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  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k6\_goedelcp : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k3\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k24\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1\_qc\_lang1 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (k3\_cqc\_lang X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ (k3\_cqc\_lang X0))) \Rightarrow (k6\_goedelcp X0 (k4\_subset\_1 (k3\_cqc\_lang \\ X0) X1 X2) = k4\_subset\_1 (k3\_qc\_lang1 X0) (k6\_goedelcp X0 X1) (k6\_goedelcp \\ X0 X2)))))) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0. (m1\_qc\_lang1 X0) \Rightarrow (\forall X1. (m2\_subset\_1 X1 (k9\_qc\_lang1 \\ X0) (k3\_cqc\_lang X0)) \Rightarrow (k6\_goedelcp X0 (k6\_domain\_1 (k3\_cqc\_lang \\ X0) X1) = k24\_qc\_lang1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. (m1\_qc\_lang1 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k9\_qc\_lang1 \\ X0)) \Rightarrow (v1\_finset\_1 (k24\_qc\_lang1 X0 X1))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge((\neg v1\_xboole\_0 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))))\Rightarrow(\forall X2.(m2\_subset\_1 X2 X0 X1)\Leftrightarrow(m1\_subset\_1 X2 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)))\Rightarrow(k4\_subset\_1 X0 X1 X2 = k2\_xboole\_0 X1 X2) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_finset\_1 X0)\wedge(v1\_finset\_1 X1))\Rightarrow(v1\_finset\_1 (k2\_xboole\_0 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(\neg v1\_xboole\_0 (k3\_cqc\_lang X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_qc\_lang1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_cqc\_lang X0))))\Rightarrow(m1\_subset\_1 (k6\_goedelcp X0 X1) (k1\_zfmisc\_1 (k3\_qc\_lang1 X0))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge(m1\_subset\_1 X1 X0))\Rightarrow(m1\_subset\_1 (k6\_domain\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(m1\_subset\_1 (k3\_cqc\_lang X0) (k1\_zfmisc\_1 (k9\_qc\_lang1 X0))) \quad (12)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v1\_xboole\_0 X1)) \quad (13)$$

**Theorem 1**

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_cqc\_lang X0)))\Rightarrow(\forall X2.(m2\_subset\_1 X2 (k9\_qc\_lang1 X0) (k3\_cqc\_lang X0))\Rightarrow((v1\_finset\_1 (k6\_goedelcp X0 X1))\Rightarrow(v1\_finset\_1 (k6\_goedelcp X0 (k4\_subset\_1 (k3\_cqc\_lang X0) X1 (k6\_domain\_1 (k3\_cqc\_lang X0) X2))))))))$$