

# t17\_qc\_lang1 (TMVTrHNvtQJ- DoRPH5LZryeET5P9JbkLgGHq)

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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  $k5\_numbers : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k8\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_7 : \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc.1 : \iota \Rightarrow \iota$  be given. Let  $k1\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{1}$$

Assume the following.

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

Assume the following.

$$v1\_xboole\_0 np\_0 \tag{3}$$

Assume the following.

$$\neg r1\_xxreal\_0 np\_7 np\_3 \tag{4}$$

Assume the following.

$$\neg r1\_xxreal\_0 np\_7 np\_2 \tag{5}$$

Assume the following.

$$\neg r1\_xxreal\_0 np\_7 np\_1 \tag{6}$$

Assume the following.

$$\neg r1\_xxreal\_0 np\_7 np\_0 \tag{7}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.k1\_xtuple\_0 (k4\_tarski X0 X1) = X0 \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k5\_numbers)\wedge(m1\_qc\_lang1 X1))\Rightarrow(\neg v1\_xboole\_0 (k8\_qc\_lang1 X1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(\neg v1\_xboole\_0 (k6\_qc\_lang1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge((\neg v1\_xboole\_0 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))))\Rightarrow(\forall X2.(m2\_subset\_1 X2 X0 X1)\Rightarrow(m1\_subset\_1 X2 X0)) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_qc\_lang1 X0)\wedge(m1\_subset\_1 X1 k5\_numbers))\Rightarrow(m1\_subset\_1 (k8\_qc\_lang1 X0 X1) (k1\_zfmisc\_1 (k6\_qc\_lang1 X0))) \quad (13)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(k6\_qc\_lang1 X0 = ReplSep2 (toset (\lambda X1 : \iota.m1\_subset\_1 X1 k5\_numbers)) (\lambda X1 : \iota.toset (\lambda X2 : \iota.m1\_subset\_1 X2 (k1\_qc\_lang1 X0))) (\lambda X1 : \iota.\lambda X2 : \iota.r1\_xreal\_0 np\_7 X1) (\lambda X1 : \iota.\lambda X2 : \iota.k4\_tarski X1 X2))) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.k4\_tarski X0 X1 = k2\_tarski (k2\_tarski X0 X1) (k1\_tarski X0) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski X0 X1 = k2\_tarski X1 X0 \quad (16)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v1\_xboole\_0 X1)) \quad (17)$$

**Theorem 1**

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 k5\_numbers)\Rightarrow(\forall X2.(m2\_subset\_1 X2 (k6\_qc\_lang1 X0) (k8\_qc\_lang1 X0 X1))\Rightarrow(((k1\_xtuple\_0 X2\neq k6\_numbers)\wedge((k1\_xtuple\_0 X2\neq np\_1)\wedge((k1\_xtuple\_0 X2\neq np\_2)\wedge(k1\_xtuple\_0 X2\neq np\_3)))))))$$