

# t18\_goedelcp (TMLaZhwGtWEquAdiBKm- eFFz4ouXfSUAH234)

October 27, 2020

Let  $m1\_qc\_lang1 : \iota \Rightarrow o$  be given. Let  $v4\_card\_3 : \iota \Rightarrow o$  be given. Let  $k9\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k3\_finseq\_2 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k13\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k8\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k3\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $np\_3 : \iota$  be given. Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (X0 = k2\_zfmisc\_1 k5\_numbers (k1\_qc\_lang1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow ((v4\_card\_3 X0) \Rightarrow (v4\_card\_3 (k3\_finseq\_2 X0))) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0.k3\_finseq\_2 X0 = k13\_finseq\_1 X0 \quad (4)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge(\neg v1\_xboole\_0 X1))\Rightarrow (\neg v1\_xboole\_0 (k2\_zfmisc\_1 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(\neg v1\_xboole\_0 (k9\_qc\_lang1 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(\neg v1\_xboole\_0 (k1\_qc\_lang1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow(\forall X1.(\neg v1\_xboole\_0 X1)\Rightarrow((X1 = k9\_qc\_lang1 X0)\Leftrightarrow((v1\_qc\_lang1 X1 X0)\wedge(\forall X2.(\neg v1\_xboole\_0 X2)\Rightarrow((v1\_qc\_lang1 X2 X0)\Rightarrow(r1\_tarski X1 X2)))))) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_qc\_lang1 X0)\Rightarrow(\forall X1.(v1\_qc\_lang1 X1 X0)\Leftrightarrow \\ & ((m1\_subset\_1 X1 (k1\_zfmisc\_1 (k13\_finseq\_1 (k2\_zfmisc\_1 k5\_numbers \\ & (k1\_qc\_lang1 X0))))))\wedge((\forall X2.(m1\_subset\_1 X2 k5\_numbers)\Rightarrow \\ & (\forall X3.(m2\_subset\_1 X3 (k6\_qc\_lang1 X0) (k8\_qc\_lang1 X0 X2))\Rightarrow \\ & (\forall X4.((v3\_card\_1 X4 X2)\wedge(m2\_finseq\_1 X4 (k2\_qc\_lang1 X0))\Rightarrow \\ & (k7\_finseq\_1 (k12\_finseq\_1 (k8\_qc\_lang1 X0 X2) X3) X4 \in X1))))\wedge \\ & ((k9\_finseq\_1 (k4\_tarski k6\_numbers k6\_numbers) \in X1)\wedge((\forall X2. \\ & (m2\_finseq\_1 X2 (k2\_zfmisc\_1 k5\_numbers (k1\_qc\_lang1 X0))\Rightarrow( \\ & (X2 \in X1)\Rightarrow(k7\_finseq\_1 (k9\_finseq\_1 (k4\_tarski np\_1 k6\_numbers) \\ & X2 \in X1))))\wedge((\forall X2.(m2\_finseq\_1 X2 (k2\_zfmisc\_1 k5\_numbers \\ & (k1\_qc\_lang1 X0))\Rightarrow(\forall X3.(m2\_finseq\_1 X3 (k2\_zfmisc\_1 \\ & k5\_numbers (k1\_qc\_lang1 X0))\Rightarrow(((X2 \in X1)\wedge(X3 \in X1))\Rightarrow(k7\_finseq\_1 \\ & (k7\_finseq\_1 (k9\_finseq\_1 (k4\_tarski np\_2 k6\_numbers)) X2) X3 \in \\ & X1))))\wedge(\forall X2.(m2\_subset\_1 X2 (k2\_qc\_lang1 X0) (k3\_qc\_lang1 \\ & X0))\Rightarrow(\forall X3.(m2\_finseq\_1 X3 (k2\_zfmisc\_1 k5\_numbers (k1\_qc\_lang1 \\ & X0))\Rightarrow((X3 \in X1)\Rightarrow(k7\_finseq\_1 (k7\_finseq\_1 (k9\_finseq\_1 (k4\_tarski \\ & np\_3 k6\_numbers)) (k12\_finseq\_1 (k3\_qc\_lang1 X0) X2)) X3 \in X1)))))))))) \quad (10) \end{aligned}$$

Assume the following.

$$\forall X0.(v4\_card\_3 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v4\_card\_3 X1)) \quad (11)$$

**Theorem 1**

$$\forall X0.(m1\_qc\_lang1 X0)\Rightarrow((v4\_card\_3 X0)\Rightarrow(v4\_card\_3 (k9\_qc\_lang1 X0)))$$