

# t4\_qc\_lang1 (TMMKjxp- BeGZRLZ7NfPMZCtfKmXEPkJCLXXJ)

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Let  $m1\_qc\_lang1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_qc\_lang1 : \iota \Rightarrow \iota$  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  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $np\_6 : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $np\_5 : \iota$  be given. Let  $np\_4 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((r1\_tarski X0 X1) \wedge \\ & (r1\_tarski X2 X3)) \Rightarrow (r1\_tarski (k2\_zfmisc\_1 X0 X2) (k2\_zfmisc\_1 \\ & X1 X3)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski \\ & X2 X1)) \Rightarrow (r1\_tarski (k2\_xboole\_0 X0 X2) X1) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1\_qc\_lang1 X0) \Rightarrow ((r1\_tarski k5\_numbers (k1\_qc\_lang1 \\ & X0)) \wedge (k6\_numbers \in k1\_qc\_lang1 X0)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (r1\_tarski (k2\_tarski X0 X1) \\ & X2) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X2)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski (k1\_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee \\ & (X0 \in X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_6) \wedge (m2\_subset\_1 \ np\_6 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_6 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_6 \ k1\_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_5) \wedge (m2\_subset\_1 \ np\_5 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_5 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_5 \ k1\_numbers)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_4) \wedge (m2\_subset\_1 \ np\_4 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_4 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_4 \ k1\_numbers)) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. r1\_tarski \ X0 \ X0 \quad (10)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (11)$$

Assume the following.

$$(\neg v1\_xboole\_0 \ k4\_ordinal1) \wedge (v3\_ordinal1 \ k4\_ordinal1) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1\_qc\_lang1 \ X0) \Rightarrow & (k2\_qc\_lang1 \ X0 = k2\_xboole\_0 \ (k2\_zfmisc\_1 \\ & (k1\_tarski \ np\_6) \ k5\_numbers) \ (k2\_zfmisc\_1 \ (k2\_tarski \ np\_4 \ np\_5) \\ & (k1\_qc\_lang1 \ X0))) \end{aligned} \quad (13)$$

**Theorem 1**

$$\forall X0. (m1\_qc\_lang1 \ X0) \Rightarrow (r1\_tarski \ (k2\_qc\_lang1 \ X0) \ (k2\_zfmisc\_1 \ k5\_numbers \ (k1\_qc\_lang1 \ X0)))$$