

t84\_qc\_lang2 (TM-  
csKe1bQ7tSXGsEJvoATomTnCBJKfJUxDh)

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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  $k9\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k15\_qc\_lang2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_qc\_lang2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k9\_qc\_lang1 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k9\_qc\_lang1 X0)) \Rightarrow ((r2\_qc\_lang2 \\ & X0 X1 X2) \Rightarrow (r1\_tarski (k15\_qc\_lang2 X0 X1) (k15\_qc\_lang2 X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k9\_qc\_lang1 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k9\_qc\_lang1 X0)) \Rightarrow ((X1 \in k15\_qc\_lang2 \\ & X0 X2) \Rightarrow (r2\_qc\_lang2 X0 X1 X2)))) \end{aligned} \quad (2)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k9\_qc\_lang1 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k9\_qc\_lang1 X0)) \Rightarrow ((X1 \in k15\_qc\_lang2 \\ & X0 X2) \Rightarrow (r1\_tarski (k15\_qc\_lang2 X0 X1) (k15\_qc\_lang2 X0 X2)))))) \end{aligned}$$