

t56\_qc\_lang3  
(TMckiBjt1ksLWohAEDmyUzsjDxjdbUJKm7Y)

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Let  $m1\_qc\_lang1 : \iota \Rightarrow o$  be given. Let  $k5\_qc\_lang3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_qc\_lang2 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k13\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k12\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k9\_qc\_lang1 X0)) \Rightarrow (k5\_qc\_lang3 X0 (k13\_qc\_lang1 X0 X1) = k5\_qc\_lang3 X0 X1)) \quad (1)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (k5\_qc\_lang3 X0 (k12\_qc\_lang1 X0) = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (m1\_subset\_1 (k12\_qc\_lang1 X0) (k9\_qc\_lang1 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (k1\_qc\_lang2 X0 = k13\_qc\_lang1 X0 (k12\_qc\_lang1 X0)) \quad (4)$$

**Theorem 1**

$$\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (k5\_qc\_lang3 X0 (k1\_qc\_lang2 X0) = k1\_xboole\_0)$$