

# t16\_cqc\_the3 (TMQYnqVjZ- tAqf4rsWZ4kKoXuMqZ8qY6CFAu)

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Let  $m1\_qc\_lang1 : \iota \Rightarrow o$  be given. Let  $r3\_cqc\_the3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_cqc\_the1 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_cqc\_lang : \iota \Rightarrow \iota$  be given. Let  $r2\_cqc\_the3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_subset\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (k3\_cqc\_lang X0))) \Rightarrow ((r3\_cqc\_the3 X0 X1) \Leftrightarrow (r2\_cqc\_the3 X0 (k1\_subset\_1 \\ (k3\_cqc\_lang X0)) X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (r2\_cqc\_the3 X0 (k1\_subset\_1 (k3\_cqc\_lang X0)) (k4\_cqc\_the1 X0)) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (m1\_subset\_1 (k4\_cqc\_the1 X0) (k1\_zfmisc\_1 (k3\_cqc\_lang X0))) \tag{3}$$

**Theorem 1**  $\forall X0.(m1\_qc\_lang1 X0) \Rightarrow (r3\_cqc\_the3 X0 (k4\_cqc\_the1 X0)).$