

t5\_substut1  
(TMQPVSptT13oYA8etyDNnrjwsbiGEC5MRQDb)

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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  $v4\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_substut1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k19\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k20\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_cqc\_lang : \iota \Rightarrow \iota$  be given. Let  $k1\_subset\_1 : \iota \Rightarrow \iota$  be given. Let  $v2\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_substut1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k17\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k18\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v5\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k22\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k21\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k9\_qc\_lang1 \\
& X0)) \Rightarrow ((k9\_substut1 X0 (k5\_cqc\_lang X0) = k1\_subset\_1 (k3\_qc\_lang1 \\
& X0)) \wedge (((v2\_qc\_lang1 X1 X0) \Rightarrow (k9\_substut1 X0 X1 = k8\_substut1 X0 \\
& (k17\_qc\_lang1 X0 X1))) \wedge (((v3\_qc\_lang1 X1 X0) \Rightarrow (k9\_substut1 X0 \\
& X1 = k9\_substut1 X0 (k18\_qc\_lang1 X0 X1))) \wedge (((v4\_qc\_lang1 X1 X0) \Rightarrow \\
& (k9\_substut1 X0 X1 = k4\_subset\_1 (k3\_qc\_lang1 X0) (k9\_substut1 \\
& X0 (k19\_qc\_lang1 X0 X1)) (k9\_substut1 X0 (k20\_qc\_lang1 X0 X1)))) \wedge \\
& ((v5\_qc\_lang1 X1 X0) \Rightarrow (k9\_substut1 X0 X1 = k4\_subset\_1 (k3\_qc\_lang1 \\
& X0) (k9\_substut1 X0 (k22\_qc\_lang1 X0 X1)) (k6\_domain\_1 (k3\_qc\_lang1 \\
& X0) (k21\_qc\_lang1 X0 X1))))))))))
\end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k9\_qc\_lang1 \\
& X0)) \Rightarrow ((v4\_qc\_lang1 X1 X0) \Rightarrow (k9\_substut1 X0 X1 = k4\_subset\_1 (k3\_qc\_lang1 \\
& X0) (k9\_substut1 X0 (k19\_qc\_lang1 X0 X1)) (k9\_substut1 X0 (k20\_qc\_lang1 \\
& X0 X1))))))
\end{aligned}$$