

t25\_valuat\_1 (TML-  
SKvdA5bSy6AkGo3Uo25wKRRRR4TMaC9Kw)

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Let  $m1\_qc\_lang1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k3\_qc\_lang1 : \iota \Rightarrow \iota$  be given. Let  $m2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_margrel1 : \iota$  be given. Let  $k9\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_valuat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_margrel1 : \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow ( \\
 & \quad \forall X2.(m2\_subset\_1 X2 (k2\_qc\_lang1 X0) (k3\_qc\_lang1 X0)) \Rightarrow \\
 & \quad (\forall X3.(m2\_funct\_2 X3 (k3\_qc\_lang1 X0) X1 (k2\_valuat\_1 X0 \\
 & \quad X1)) \Rightarrow (\forall X4.(m2\_funct\_2 X4 (k2\_valuat\_1 X0 X1) k6\_margrel1 \\
 & \quad (k9\_funct\_2 (k2\_valuat\_1 X0 X1) k6\_margrel1)) \Rightarrow ((k3\_funct\_2 ( \\
 & \quad k2\_valuat\_1 X0 X1) k6\_margrel1 (k3\_valuat\_1 X0 X1 X2 X4) X3 = k8\_margrel1) \Leftrightarrow \\
 & \quad (\forall X5.(m2\_funct\_2 X5 (k3\_qc\_lang1 X0) X1 (k2\_valuat\_1 X0 \\
 & \quad X1)) \Rightarrow ((\forall X6.(m2\_subset\_1 X6 (k2\_qc\_lang1 X0) (k3\_qc\_lang1 \\
 & \quad X0)) \Rightarrow ((X2 \neq X6) \Rightarrow (k3\_funct\_2 (k3\_qc\_lang1 X0) X1 X5 X6 = k3\_funct\_2 \\
 & \quad (k3\_qc\_lang1 X0) X1 X3 X6))) \Rightarrow (k3\_funct\_2 (k2\_valuat\_1 X0 X1) k6\_margrel1 \\
 & \quad X4 X5 = k8\_margrel1)))))))))
 \end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned}
 & \forall X0.(m1\_qc\_lang1 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow ( \\
 & \quad \forall X2.(m2\_subset\_1 X2 (k2\_qc\_lang1 X0) (k3\_qc\_lang1 X0)) \Rightarrow \\
 & \quad (\forall X3.(m2\_funct\_2 X3 (k3\_qc\_lang1 X0) X1 (k2\_valuat\_1 X0 \\
 & \quad X1)) \Rightarrow (\forall X4.(m2\_funct\_2 X4 (k2\_valuat\_1 X0 X1) k6\_margrel1 \\
 & \quad (k9\_funct\_2 (k2\_valuat\_1 X0 X1) k6\_margrel1)) \Rightarrow ((k3\_funct\_2 ( \\
 & \quad k2\_valuat\_1 X0 X1) k6\_margrel1 (k3\_valuat\_1 X0 X1 X2 X4) X3 = k8\_margrel1) \Rightarrow \\
 & \quad (k3\_funct\_2 (k2\_valuat\_1 X0 X1) k6\_margrel1 X4 X3 = k8\_margrel1))))))
 \end{aligned}$$