t6_qc_lang3 (TMYa7oUCLr2ynJ2G66EwErzZR96Dwr1qhz7)

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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 $v3\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k24\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $k1\_subset\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k23\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let

$k21\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k9\_qc\_lang1\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))) \Rightarrow ((X2 = k24\_qc\_lang1\ X0\ X1) \Leftrightarrow (\exists X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0)))))))) \wedge ((X2 = k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ X1) \wedge (\forall X4.(m1\_subset\_1\ X4\ (k9\_qc\_lang1\ X0)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))) \Rightarrow (((X4 = k12\_qc\_lang1\ X0) \Rightarrow (k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ X4 = k1\_subset\_1\ (k3\_qc\_lang1\ X0))) \wedge (((v2\_qc\_lang1\ X4\ X0) \Rightarrow (k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ X4 = k23\_qc\_lang1\ X0\ (k17\_qc\_lang1\ X0\ X4))) \wedge ((((v3\_qc\_lang1\ X4\ X0) \wedge (X5 = k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ (k18\_qc\_lang1\ X0\ X4))) \Rightarrow (k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ X4 = X5)) \wedge ((((v4\_qc\_lang1\ X4\ X0) \wedge ((X5 = k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ (k19\_qc\_lang1\ X0\ X4)) \wedge (X6 = k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ (k20\_qc\_lang1\ X0\ X4)))) \Rightarrow (k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ X4 = k4\_subset\_1\ (k3\_qc\_lang1\ X0)\ X5\ X6)) \wedge (((v5\_qc\_lang1\ X4\ X0) \wedge (X5 = k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ (k22\_qc\_lang1\ X0\ X4))) \Rightarrow (k3\_funct\_2\ (k9\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))\ X3\ X4 = k7\_subset\_1\ (k3\_qc\_lang1\ X0)\ X5\ (k1\_tarski\ (k21\_qc\_lang1\ X0\ X4)))))))))))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_qc\_lang1\ X0) \wedge (m1\_subset\_1\ X1\ (k9\_qc\_lang1\ X0))) \Rightarrow (m1\_subset\_1\ (k24\_qc\_lang1\ X0\ X1)\ (k1\_zfmisc\_1\ (k3\_qc\_lang1\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.m1\_subset\_1\ (k1\_subset\_1\ X0)\ (k1\_zfmisc\_1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_qc\_lang1\ X0) \wedge (m1\_subset\_1\ X1\ (k9\_qc\_lang1\ X0))) \Rightarrow (m1\_subset\_1\ (k18\_qc\_lang1\ X0\ X1)\ (k9\_qc\_lang1\ X0)) \tag{4}$$

Theorem 1

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k9\_qc\_lang1\ X0)) \Rightarrow ((v3\_qc\_lang1\ X1\ X0) \Rightarrow (k24\_qc\_lang1\ X0\ X1 = k24\_qc\_lang1\ X0\ (k18\_qc\_lang1\ X0\ X1))))$$