t21_qc_lang2 (TMc9UnNC14qBo6E2FsWLDyN1z7Ms1PZgvRp)

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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 $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $k3\_qc\_lang1 : \iota \Rightarrow \iota$ be given. Let $k8\_qc\_lang2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k22\_qc\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k6\_qc\_lang2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k9\_qc\_lang1\ X0)) \Rightarrow ((k21\_qc\_lang1\ X0\ (k15\_qc\_lang1\ X0\ X1\ X2) = X1) \wedge (k22\_qc\_lang1\ X0\ (k15\_qc\_lang1\ X0\ X1\ X2) = X2))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (\neg v1\_xboole\_0\ (k3\_qc\_lang1\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_qc\_lang1\ X0) \wedge ((m1\_subset\_1\ X1\ (k3\_qc\_lang1\ X0)) \wedge ((m1\_subset\_1\ X2\ (k3\_qc\_lang1\ X0)) \wedge (m1\_subset\_1\ X3\ (k9\_qc\_lang1\ X0))))) \Rightarrow (m1\_subset\_1\ (k6\_qc\_lang2\ X0\ X1\ X2\ X3)\ (k9\_qc\_lang1\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0) \Rightarrow (m1\_subset\_1\ (k3\_qc\_lang1\ X0)\ (k1\_zfmisc\_1\ (k2\_qc\_lang1\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_qc\_lang1\ X0)\wedge((m1\_subset\_1\ X1\ (k3\_qc\_lang1\ X0))\wedge(m1\_subset\_1\ X2\ (k9\_qc\_lang1\ X0))))\Rightarrow(m1\_subset\_1\ (k15\_qc\_lang1\ X0\ X1\ X2)\ (k9\_qc\_lang1\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\forall X1.(m2\_subset\_1\ X1\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X3.(m2\_subset\_1\ X3\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (k9\_qc\_lang1\ X0))\Rightarrow(k8\_qc\_lang2\ X0\ X1\ X2\ X3\ X4 = k15\_qc\_lang1\ X0\ X1\ (k6\_qc\_lang2\ X0\ X2\ X3\ X4)))))) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\forall X1.(m2\_subset\_1\ X1\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k9\_qc\_lang1\ X0))\Rightarrow(k6\_qc\_lang2\ X0\ X1\ X2\ X3 = k15\_qc\_lang1\ X0\ X1\ (k15\_qc\_lang1\ X0\ X2\ X3))))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{9}$$

Theorem 1

$$\forall X0.(m1\_qc\_lang1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k9\_qc\_lang1\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k9\_qc\_lang1\ X0))\Rightarrow(\forall X3.(m2\_subset\_1\ X3\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X4.(m2\_subset\_1\ X4\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X5.(m2\_subset\_1\ X5\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X6.(m2\_subset\_1\ X6\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X7.(m2\_subset\_1\ X7\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow(\forall X8.(m2\_subset\_1\ X8\ (k2\_qc\_lang1\ X0)\ (k3\_qc\_lang1\ X0))\Rightarrow((k8\_qc\_lang2\ X0\ X3\ X5\ X7\ X1 = k8\_qc\_lang2\ X0\ X4\ X6\ X8\ X2)\Rightarrow((X3 = X4)\wedge((X5 = X6)\wedge((X7 = X8)\wedge(X1 = X2))))))))))))$$