t48_eqrel_1 (TMW1GXEXuvxhTwnkTTREcwJP433Xs2xGMjw)

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Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_3 : \iota \Rightarrow \iota$ be given. Let $k10\_funct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k7\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_funct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ 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 $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))) \Rightarrow (k7\_relset\_1\ X0\ X1\ X2\ X3 = k7\_relat\_1\ X2\ X3) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.k10\_funct\_3\ X0\ X1 = k8\_funct\_3\ X0\ X1 \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ (k8\_funct\_3\ X0\ X1)) \wedge (v1\_funct\_1\ (k8\_funct\_3\ X0\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow ((v1\_relat\_1\ (k1\_funct\_3\ X0)) \wedge (v1\_funct\_1\ (k1\_funct\_3\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_funct\_1\ (k10\_funct\_3\ X0\ X1)) \wedge ((v1\_funct\_2\ (k10\_funct\_3\ X0\ X1)\ (k2\_zfmisc\_1\ X0\ X1)\ X1) \wedge (m1\_subset\_1\ (k10\_funct\_3\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)\ X1)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_1\ X2)\wedge(v1\_funct\_1\ X2))\Rightarrow((X2 = k8\_funct\_3\ X0\ X1)\Leftrightarrow((k9\_xtuple\_0\ X2 = k2\_zfmisc\_1\ X0\ X1)\wedge(\forall X3.\forall X4.((X3 \in X0)\wedge(X4 \in X1))\Rightarrow(k1\_binop\_1\ X2\ X3\ X4 = X4))))) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow((X1 = k1\_funct\_3\ X0)\Leftrightarrow((k9\_xtuple\_0\ X1 = k1\_zfmisc\_1\ (k9\_xtuple\_0\ X0))\wedge(\forall X2.(r1\_tarski\ X2\ (k9\_xtuple\_0\ X0))\Rightarrow(k1\_funct\_1\ X1\ X2 = k7\_relat\_1\ X0\ X2))))) \tag{7}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(r1\_tarski\ X0\ (k2\_zfmisc\_1\ X1\ X2))\Rightarrow(k1\_funct\_1\ (k1\_funct\_3\ (k10\_funct\_3\ X1\ X2))\ X0 = k7\_relset\_1\ (k2\_zfmisc\_1\ X1\ X2)\ X2\ (k10\_funct\_3\ X1\ X2)\ X0)$$