t103_funct_2 (TM-PZW3rWLuqYEYfQbi5HCWdhV5dowBmzbqv)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ 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 $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X0\ X1) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))) \Rightarrow (m1\_subset\_1\ (k7\_funct\_2\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{3}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X0\ X1) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X1))) \Rightarrow ((X4 = k7\_funct\_2\ X0\ X1\ X2\ X3) \Leftrightarrow (\forall X5.(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ X1)) \Rightarrow ((X5 \in X4) \Leftrightarrow (\exists X6.(m1\_subset\_1\ X6\ (k1\_zfmisc\_1\ X0)) \wedge ((X6 \in X3) \wedge (X5 = k7\_relset\_1\ X0\ X1\ X2\ X6)))))))))) \tag{4}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow (\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow((r1\_tarski\ X3\ X4)\Rightarrow(r1\_tarski\ (k7\_funct\_2\ X0\ X1\ X2\ X3)\ (k7\_funct\_2\ X0\ X1\ X2\ X4)))))))$$