t6_zf_colla (TMPKE6BoHA7WywzE4s74ZoEmjdyKszEJo2E)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zf\_colla : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_ordinal1 : \iota \Rightarrow o$ be given. Let $v2\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\neg(X0 \in X1) \wedge (v1\_xboole\_0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (\forall X2.(v3\_ordinal1\ X2) \Rightarrow ((r1\_ordinal1\ X1\ X2) \Rightarrow (r1\_tarski\ (k1\_zf\_colla\ X0\ X1)\ (k1\_zf\_colla\ X0\ X2))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{5}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (k1\_zf\_colla\ X0\ X1 = ReplSep\ (toset\ (\lambda X2 : \iota.m1\_subset\_1\ X2\ X0))\ (\lambda X2 : \iota.\forall X3.(m1\_subset\_1\ X3\ X0) \Rightarrow (\neg(X3 \in X2) \wedge (\forall X4.(v3\_ordinal1\ X4) \Rightarrow (\neg(X4 \in X1) \wedge (X3 \in k1\_zf\_colla\ X0\ X4)))))\ (\lambda X2 : \iota.X2))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge(v3\_ordinal1\ X1))\Rightarrow(\\(r1\_ordinal1\ X0\ X1)\Leftrightarrow(r1\_tarski\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_ordinal1\ X0)\Leftrightarrow(\forall X1.(X1\in X0)\Rightarrow(r1\_tarski\ X1\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow((v1\_ordinal1\ X0)\wedge(v2\_ordinal1\ X0)) \tag{9}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(v3\_ordinal1\ X1)\Rightarrow(\\\forall X2.(m1\_subset\_1\ X2\ X0)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ X0)\Rightarrow\\(((X2\in X3)\wedge(X3\in k1\_zf\_colla\ X0\ X1))\Rightarrow((X2\in k1\_zf\_colla\ X0\ X1)\wedge(\\\exists X4.(v3\_ordinal1\ X4)\wedge((X4\in X1)\wedge(X2\in k1\_zf\_colla\ X0\ X4))))))))$$