t22_ltlaxio1 (TMHJutx2oW6i326K64Q3SypKDLFXaPqzt6T)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_hilbert1 : \iota$ 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 $k5\_numbers : \iota$ be given. Let $k10\_ltlaxio1 : \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_ltlaxio1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_ltlaxio1 : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \Rightarrow (k4\_subset\_1\ X0\ X1\ X2 = k2\_xboole\_0\ X1\ X2) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \Rightarrow (m1\_subset\_1\ (k4\_subset\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_xboole\_0\ X0\ X1) \Leftrightarrow (\forall X3.\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \tag{4}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ (k1\_zfmisc\_1\ k10\_ltlaxio1)) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k10\_ltlaxio1)))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ k1\_hilbert1)) \Rightarrow ((r2\_ltlaxio1\ X0\ X1) \Leftrightarrow (\forall X2.\ (m1\_subset\_1\ X2\ k1\_hilbert1) \Rightarrow ((X2 \in X1) \Rightarrow (r1\_ltlaxio1\ X0\ X2))))) \tag{5}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_hilbert1))\Rightarrow(\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ k1\_hilbert1))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ k5\_numbers\ (k1\_zfmisc\_1\ k10\_ltlaxio1))\wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k10\_ltlaxio1))))))\Rightarrow(((r2\_ltlaxio1\ X2\ X0)\wedge(r2\_ltlaxio1\ X2\ X1))\Leftrightarrow (r2\_ltlaxio1\ X2\ (k4\_subset\_1\ k1\_hilbert1\ X0\ X1)))))$$