t87_finseq_4 (TMdTX5Pb9cMFV69zjsKU5bKubJXHX83FSCS)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m1\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(m1\_eqrel\_1\ X2\ X1) \Rightarrow (\neg(X0 \in X2) \wedge (\forall X3.(m1\_subset\_1\ X3\ X1) \Rightarrow (X0 \neq k11\_eqrel\_1\ X1\ X3\ X2)))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0) \wedge ((m1\_subset\_1\ X1\ X0) \wedge (m1\_eqrel\_1\ X2\ X0))) \Rightarrow (m1\_subset\_1\ (k11\_eqrel\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (\forall X2.(m1\_eqrel\_1\ X2\ X0) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0)) \Rightarrow ((X3 = k11\_eqrel\_1\ X0\ X1\ X2) \Leftrightarrow ((X1 \in X3) \wedge (X3 \in X2)))))) \tag{3}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_eqrel\_1\ X1\ X0) \Rightarrow (\forall X2.\neg(X2 \in X1) \wedge (\forall X3.(m1\_subset\_1\ X3\ X0) \Rightarrow (\neg X3 \in X2))))$$