t25_substlat (TMR7sCPW6VMHRNaAqgYbK2F1HSey6Xkb2D4)

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Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_finsub\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_substlat : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_substlat : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_substlat : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k5\_finsub\_1\ (k4\_partfun1\ X0\ X1))) \Rightarrow (k3\_substlat\ X0\ X1\ (k4\_substlat\ X0\ X1\ X2\ X2) = k3\_substlat\ X0\ X1\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m2\_subset\_1\ X2\ (k5\_finsub\_1\ (k4\_partfun1\ X0\ X1))\ (k1\_substlat\ X0\ X1)) \Rightarrow (k3\_substlat\ X0\ X1\ X2 = X2) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\neg v1\_xboole\_0\ (k1\_substlat\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Rightarrow (m1\_subset\_1\ X2\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1\ (k1\_substlat\ X0\ X1)\ (k1\_zfmisc\_1\ (k5\_finsub\_1\ (k4\_partfun1\ X0\ X1))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \Rightarrow (v1\_xboole\_0\ X1)) \tag{6}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(m2\_subset\_1\ X2\ (k5\_finsub\_1\ (k4\_partfun1\ X0\ X1))\ (k1\_substlat\ X0\ X1))\Rightarrow(k3\_substlat\ X0\ X1\ (k4\_substlat\ X0\ X1\ X2\ X2) = X2)$$