t1_pscomp_1 (TMNX7cx6FvV1AtuUzyBnaMicTNooDFXuWf6)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ 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 $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $v2\_seq\_2 : \iota \Rightarrow o$ 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 $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_pscomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k7\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_seq\_4 : \iota \Rightarrow \iota$ be given. Let $k3\_seq\_4 : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $v3\_xxreal\_2 : \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $k9\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X3)\wedge ((v1\_funct\_2\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\Rightarrow((X1\neq k1\_xboole\_0)\Rightarrow(\forall X4.(\exists X5.(X5 \in X0)\wedge ((X5 \in X2)\wedge(X4 = k1\_funct\_1\ X3\ X5)))\Rightarrow(X4 \in k7\_relset\_1\ X0\ X1\ X3\ X2))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1)\Rightarrow((v1\_xboole\_0\ X1)\vee(X0 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(k7\_relset\_1\ X0\ X1\ X2\ X3 = k7\_relat\_1\ X2\ X3) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers))\Rightarrow(k5\_seq\_4\ X0 = k3\_seq\_4\ X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v3\_valued\_0\ X0)))\Rightarrow(k1\_seq\_1\ X0\ X1 = k1\_funct\_1\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v3\_valued\_0\ X0)))\Rightarrow(v1\_xreal\_0\ (k1\_funct\_1\ X0\ X1)) \tag{6}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))))\Rightarrow(\neg v1\_xboole\_0\ (k7\_relat\_1\ X2\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0)\wedge(v3\_valued\_0\ X0))\Rightarrow(v3\_membered\ (k7\_relat\_1\ X0\ X1)) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_struct\_0\ X0))\Rightarrow(\neg v1\_xboole\_0\ (u1\_struct\_0\ X0)) \tag{10}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{11}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{12}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(m1\_subset\_1\ (k7\_relset\_1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ X1)) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_struct\_0\ X0)\wedge((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ k1\_numbers)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k1\_numbers)))))))\Rightarrow(m1\_subset\_1\ (k1\_pscomp\_1\ X0\ X1)\ k1\_numbers) \tag{15}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow((v3\_xxreal\_2\ X0)\Rightarrow((v1\_xboole\_0\ X0)\vee(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((X1 = k3\_seq\_4\ X0)\Leftrightarrow((\forall X2.(v1\_xreal\_0\ X2)\Rightarrow((X2 \in X0)\Rightarrow(r1\_xxreal\_0\ X1\ X2)))\wedge(\forall X2.(v1\_xreal\_0\ X2)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X2\ k6\_numbers)\wedge(\forall X3.(v1\_xreal\_0\ X3)\Rightarrow(\neg(X3 \in X0)\wedge(\neg r1\_xxreal\_0\ (k9\_binop\_2\ X1\ X2)\ X3)))))))))) \tag{16}$$

Assume the following.

$$\forall X0.(l1\_struct\_0\ X0)\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ k1\_numbers)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k1\_numbers)))))\Rightarrow(k1\_pscomp\_1\ X0\ X1 = k5\_seq\_4\ (k7\_relset\_1\ (u1\_struct\_0\ X0)\ k1\_numbers\ X1\ (u1\_struct\_0\ X0)))) \tag{17}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ X0\ k1\_numbers)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))))\Rightarrow((v2\_seq\_2\ X1)\Leftrightarrow(v3\_xxreal\_2\ (k7\_relset\_1\ X0\ k1\_numbers\ X1\ X0))) \tag{18}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{20}$$

Assume the following.

$$\forall X0.\forall X1.(v3\_membered\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v3\_valued\_0\ X2)) \tag{21}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ k1\_numbers)\wedge((v2\_seq\_2\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k1\_numbers))))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(r1\_xxreal\_0\ (k1\_pscomp\_1\ X0\ X1)\ (k1\_seq\_1\ X1\ X2))))$$