t3_csspace (TMJApo7uf5piiezQEmfQVgTEoFeXufW9Zdn)

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Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $g1\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_csspace : \iota$ be given. Let $k6\_csspace : \iota$ be given. Let $k4\_csspace : \iota$ be given. Let $k5\_csspace : \iota$ be given. Let $k1\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k2\_numbers : \iota$ be given. Let $k2\_csspace : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ 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 $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_clvect\_1 : \iota \Rightarrow o$ be given. Let $l1\_clvect\_1 : \iota \Rightarrow o$ be given. Let $u1\_clvect\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_csspace : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $u2\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $u1\_algstr\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X1\ X0) \wedge (((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ X0\ X0)\ X0) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)\ X0))))) \wedge ((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ k2\_numbers\ X0)\ X0) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ X0)\ X0))))))) \Rightarrow (\forall X4.\forall X5.\forall X6.\forall X7.(g1\_clvect\_1\ X0\ X1\ X2\ X3 = g1\_clvect\_1\ X4\ X5\ X6\ X7) \Rightarrow ((X0 = X4) \wedge ((X1 = X5) \wedge ((X2 = X6) \wedge (X3 = X7)))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0)\wedge ((m1\_subset\_1\ X1\ X0)\wedge(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ X0\ X0)\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)\ X0)))))\wedge((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ k2\_numbers\ X0)\ X0)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ X0)\ X0)))))))\Rightarrow((\neg v2\_struct\_0\ (g1\_clvect\_1\ X0\ X1\ X2\ X3))\wedge(v1\_clvect\_1\ (g1\_clvect\_1\ X0\ X1\ X2\ X3))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_clvect\_1\ X0)\Rightarrow((v1\_funct\_1\ (u1\_clvect\_1\ X0))\wedge((v1\_funct\_2\ (u1\_clvect\_1\ X0)\ (k2\_zfmisc\_1\ k2\_numbers\ (u1\_struct\_0\ X0))\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ (u1\_clvect\_1\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ (u1\_struct\_0\ X0))\ (u1\_struct\_0\ X0)))))) \tag{4}$$

Assume the following.

$$m1\_subset\_1\ k6\_csspace\ k1\_csspace \tag{5}$$

Assume the following.

$$(v1\_funct\_1\ k5\_csspace)\wedge((v1\_funct\_2\ k5\_csspace\ (k2\_zfmisc\_1\ k2\_numbers\ k1\_csspace)\ k1\_csspace)\wedge(m1\_subset\_1\ k5\_csspace\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ k1\_csspace)\ k1\_csspace)))) \tag{6}$$

Assume the following.

$$(v1\_funct\_1\ k4\_csspace)\wedge((v1\_funct\_2\ k4\_csspace\ (k2\_zfmisc\_1\ k1\_csspace\ k1\_csspace)\ k1\_csspace)\wedge(m1\_subset\_1\ k4\_csspace\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_csspace\ k1\_csspace)\ k1\_csspace)))) \tag{7}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_csspace \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X1\ X0)\wedge(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ X0\ X0)\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)\ X0)))))\wedge((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ k2\_numbers\ X0)\ X0)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ X0)\ X0)))))))\Rightarrow((v1\_clvect\_1\ (g1\_clvect\_1\ X0\ X1\ X2\ X3))\wedge(l1\_clvect\_1\ (g1\_clvect\_1\ X0\ X1\ X2\ X3))) \tag{9}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ (k2\_zfmisc\_1\ k2\_numbers\ k1\_csspace)\ k1\_csspace)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ k1\_csspace)\ k1\_csspace)))))\Rightarrow((X0 = k5\_csspace)\Leftrightarrow(\forall X1.\forall X2.((v1\_xcmplx\_0\ X1)\wedge(X2 \in k1\_csspace))\Rightarrow(k1\_binop\_1\ X0\ X1\ X2 = k25\_valued\_1\ k5\_numbers\ k2\_numbers\ (k2\_csspace\ X2)\ (k3\_csspace\ X1))))) \tag{10}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k3\_csspace\ X0 = X0) \tag{11}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_clvect\_1\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(v1\_xcmplx\_0\ X2)\Rightarrow(k1\_clvect\_1\ X0\ X1\ X2 = k1\_funct\_1\ (u1\_clvect\_1\ X0)\ (k4\_tarski\ X2\ X1)))) \tag{12}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(\forall X1.\forall X2.k1\_binop\_1\ X0\ X1\ X2 = k1\_funct\_1\ X0\ (k4\_tarski\ X1\ X2)) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{14}$$

Assume the following.

$$\forall X0.(l1\_clvect\_1\ X0)\Rightarrow((v1\_clvect\_1\ X0)\Rightarrow(X0 = g1\_clvect\_1\ (u1\_struct\_0\ X0)\ (u2\_struct\_0\ X0)\ (u1\_algstr\_0\ X0)\ (u1\_clvect\_1\ X0))) \tag{15}$$

Theorem 1

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (g1\_clvect\_1\ k1\_csspace\ k6\_csspace\ k4\_csspace\ k5\_csspace)))\Rightarrow(k1\_clvect\_1\ (g1\_clvect\_1\ k1\_csspace\ k6\_csspace\ k4\_csspace\ k5\_csspace)\ X1\ X0 = k25\_valued\_1\ k5\_numbers\ k2\_numbers\ (k2\_csspace\ X1)\ X0))$$