t20_clvect_3 (TMdR8z6Ut879dZMHtbcqGqRgWg2MP8Ft8AB)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v2\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v5\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v2\_csspace : \iota \Rightarrow o$ be given. Let $l1\_csspace : \iota \Rightarrow o$ 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 $k5\_numbers : \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ 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 $k1\_normsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_clvect\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $np\_\_0 : \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{1}$$

Assume the following.

$$\begin{gathered}\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v2\_clvect\_1\ X0) \wedge ((v3\_clvect\_1\ X0) \wedge ((v4\_clvect\_1\ X0) \wedge ((v5\_clvect\_1\ X0) \wedge ((v2\_csspace\ X0) \wedge (l1\_csspace\ X0))))))))))) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ X0)))))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ k1\_numbers\ k5\_numbers) \Rightarrow (k1\_normsp\_1\ X0\ X1\ (k2\_nat\_1\ X2\ np\_\_1) = k5\_algstr\_0\ X0\ (k2\_clvect\_3\ X0\ X1\ (k2\_nat\_1\ X2\ np\_\_1))\ (k2\_clvect\_3\ X0\ X1\ X2))))\end{gathered} \tag{2}$$

Assume the following.

$$\begin{gathered}((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge \\ ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers))\end{gathered} \tag{3}$$

Assume the following.

$$v1\_xboole\_0\ np\_\_0 \tag{4}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_1\ np\_\_0 = np\_\_1 \tag{5}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k5\_numbers)\wedge(v7\_ordinal1\ X1))\Rightarrow(k2\_nat\_1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{7}$$

Assume the following.

$$m2\_subset\_1\ k6\_numbers\ k1\_numbers\ k5\_numbers \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k5\_numbers)\wedge(v7\_ordinal1\ X1))\Rightarrow(k2\_nat\_1\ X0\ X1 = k2\_nat\_1\ X1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v7\_ordinal1\ X0) \tag{10}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v2\_clvect\_1\ X0)\wedge((v3\_clvect\_1\ X0)\wedge((v4\_clvect\_1\ X0)\wedge((v5\_clvect\_1\ X0)\wedge((v2\_csspace\ X0)\wedge(l1\_csspace\ X0))))))))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ X0))))))\Rightarrow(k1\_normsp\_1\ X0\ X1\ np\_\_1 = k5\_algstr\_0\ X0\ (k2\_clvect\_3\ X0\ X1\ np\_\_1)\ (k2\_clvect\_3\ X0\ X1\ k6\_numbers)))$$