t53_comseq_3 (TMHX8VXgkqDdexD4fXNtBFGHzLbavrQf5dt)

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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 $k2\_numbers : \iota$ 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 $v1\_comseq\_3 : \iota \Rightarrow o$ be given. Let $v1\_series\_1 : \iota \Rightarrow o$ be given. Let $k7\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $k8\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $k11\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_series\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_complex1 : \iota$ be given. Let $v2\_comseq\_2 : \iota \Rightarrow o$ be given. Let $k2\_seq\_2 : \iota \Rightarrow \iota$ be given. Let $k3\_complex1 : \iota \Rightarrow \iota$ be given. Let $k3\_comseq\_2 : \iota \Rightarrow \iota$ be given. Let $k4\_complex1 : \iota \Rightarrow \iota$ be given. Let $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k3\_series\_1 : \iota \Rightarrow \iota$ be given. Let $k10\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers) \wedge ((v2\_comseq\_2\ X0) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))) \Rightarrow ((v2\_comseq\_2\ (k7\_comseq\_3\ X0)) \wedge ((v2\_comseq\_2\ (k8\_comseq\_3\ X0)) \wedge ((k2\_seq\_2\ (k7\_comseq\_3\ X0) = k3\_complex1\ (k3\_comseq\_2\ X0)) \wedge (k2\_seq\_2\ (k8\_comseq\_3\ X0) = k4\_complex1\ (k3\_comseq\_2\ X0)))))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers))))) \Rightarrow ((r2\_funct\_2\ k5\_numbers\ k1\_numbers\ (k3\_series\_1\ (k7\_comseq\_3\ X0))\ (k7\_comseq\_3\ (k10\_comseq\_3\ X0))) \wedge (r2\_funct\_2\ k5\_numbers\ k1\_numbers\ (k3\_series\_1\ (k8\_comseq\_3\ X0))\ (k8\_comseq\_3\ (k10\_comseq\_3\ X0)))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k2\_xcmplx\_0\ (k3\_complex1\ X0)\ (k3\_xcmplx\_0\ (k4\_complex1\ X0)\ k7\_complex1) = X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1\_funct\_1\ X2)\wedge ((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))))\Rightarrow((r2\_funct\_2\ X0\ X1\ X2\ X3)\Leftrightarrow(X2 = X3)) \tag{4}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow((v1\_funct\_1\ (k8\_comseq\_3\ X0))\wedge((v1\_funct\_2\ (k8\_comseq\_3\ X0)\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ (k8\_comseq\_3\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))) \tag{5}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow((v1\_funct\_1\ (k7\_comseq\_3\ X0))\wedge((v1\_funct\_2\ (k7\_comseq\_3\ X0)\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ (k7\_comseq\_3\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow((v1\_funct\_1\ (k3\_series\_1\ X0))\wedge((v1\_funct\_2\ (k3\_series\_1\ X0)\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ (k3\_series\_1\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow(m1\_subset\_1\ (k11\_comseq\_3\ X0)\ k2\_numbers) \tag{8}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow((v1\_funct\_1\ (k10\_comseq\_3\ X0))\wedge((v1\_funct\_2\ (k10\_comseq\_3\ X0)\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ (k10\_comseq\_3\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))) \tag{9}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow ((v1\_comseq\_3\ X0)\Leftrightarrow(v2\_comseq\_2\ (k10\_comseq\_3\ X0))) \tag{10}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow (k11\_comseq\_3\ X0 = k3\_comseq\_2\ (k10\_comseq\_3\ X0)) \tag{11}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow (k4\_series\_1\ X0 = k2\_seq\_2\ (k3\_series\_1\ X0)) \tag{12}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow ((v1\_series\_1\ X0)\Leftrightarrow(v2\_comseq\_2\ (k3\_series\_1\ X0))) \tag{13}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{14}$$

Theorem 1

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow ((v1\_comseq\_3\ X0)\Rightarrow((v1\_series\_1\ (k7\_comseq\_3\ X0))\wedge((v1\_series\_1\ (k8\_comseq\_3\ X0))\wedge(k11\_comseq\_3\ X0 = k2\_xcmplx\_0\ (k4\_series\_1\ (k7\_comseq\_3\ X0))\ (k3\_xcmplx\_0\ (k4\_series\_1\ (k8\_comseq\_3\ X0))\ k7\_complex1)))))$$