t52_comseq_3 (TMTQt5L7ahUGyyEqBJL9eaNpcEaZQ4pUXPM)

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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 $v2\_comseq\_2 : \iota \Rightarrow o$ be given. Let $k3\_comseq\_2 : \iota \Rightarrow \iota$ be given. Let $k5\_complex1 : \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $v1\_series\_1 : \iota \Rightarrow o$ be given. Let $k2\_seq\_2 : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k7\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $k8\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_complex1 : \iota \Rightarrow \iota$ 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 $k3\_series\_1 : \iota \Rightarrow \iota$ be given. Let $k10\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_complex1 : \iota$ be given. Let $k4\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $k2\_series\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_valued\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers))))) \Rightarrow ((v1\_series\_1\ X0) \Rightarrow ((v2\_comseq\_2\ X0) \wedge (k2\_seq\_2\ X0 = k6\_numbers))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers))))) \Rightarrow (((v2\_comseq\_2\ (k7\_comseq\_3\ X0)) \wedge (v2\_comseq\_2\ (k8\_comseq\_3\ X0))) \Rightarrow ((v2\_comseq\_2\ X0) \wedge ((k3\_complex1\ (k3\_comseq\_2\ X0) = k2\_seq\_2\ (k7\_comseq\_3\ X0)) \wedge (k4\_complex1\ (k3\_comseq\_2\ X0) = k2\_seq\_2\ (k8\_comseq\_3\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow ((r2\_funct\_2\ k5\_numbers\ k1\_numbers\ (k3\_series\_1\ (k7\_comseq\_3\ X0))\ (k7\_comseq\_3\ (k10\_comseq\_3\ X0)))\wedge(r2\_funct\_2\ k5\_numbers\ k1\_numbers\ (k3\_series\_1\ (k8\_comseq\_3\ X0))\ (k8\_comseq\_3\ (k10\_comseq\_3\ X0))))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k2\_xcmplx\_0\ (k3\_complex1\ X0)\ (k3\_xcmplx\_0\ (k4\_complex1\ X0)\ k7\_complex1) = X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1\_funct\_1\ X2)\wedge ((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))))\Rightarrow((r2\_funct\_2\ X0\ X1\ X2\ X3)\Leftrightarrow(X2 = X3)) \tag{5}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow (k8\_comseq\_3\ X0 = k4\_comseq\_3\ X0) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow (k7\_comseq\_3\ X0 = k3\_comseq\_3\ X0) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow (k10\_comseq\_3\ X0 = k2\_series\_1\ X0) \tag{8}$$

Assume the following.

$$k5\_complex1 = k2\_xcmplx\_0\ k6\_numbers\ (k3\_xcmplx\_0\ k6\_numbers\ k7\_complex1) \tag{9}$$

Assume the following.

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

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge((v2\_comseq\_2\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers))))))\Rightarrow((v1\_funct\_1\ (k4\_comseq\_3\ X0))\wedge((v1\_funct\_2\ (k4\_comseq\_3\ X0)\ k5\_numbers\ k1\_numbers)\wedge(v2\_comseq\_2\ (k4\_comseq\_3\ X0)))) \tag{11}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge((v2\_comseq\_2\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers))))))\Rightarrow((v1\_funct\_1\ (k3\_comseq\_3\ X0))\wedge((v1\_funct\_2\ (k3\_comseq\_3\ X0)\ k5\_numbers\ k1\_numbers)\wedge(v2\_comseq\_2\ (k3\_comseq\_3\ X0)))) \tag{12}$$

Assume the following.

$$v1\_membered\ k2\_numbers \tag{13}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow((v1\_funct\_1\ (k8\_comseq\_3\ X0))\wedge((v1\_funct\_2\ (k8\_comseq\_3\ X0)\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ (k8\_comseq\_3\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers))))) \tag{14}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow((v1\_funct\_1\ (k7\_comseq\_3\ X0))\wedge((v1\_funct\_2\ (k7\_comseq\_3\ X0)\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ (k7\_comseq\_3\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers))))) \tag{15}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow((v1\_relat\_1\ (k4\_comseq\_3\ X0))\wedge(v1\_funct\_1\ (k4\_comseq\_3\ X0))) \tag{16}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow((v1\_funct\_1\ (k3\_series\_1\ X0))\wedge((v1\_funct\_2\ (k3\_series\_1\ X0)\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ (k3\_series\_1\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))) \tag{17}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow((v1\_relat\_1\ (k3\_comseq\_3\ X0))\wedge(v1\_funct\_1\ (k3\_comseq\_3\ X0))) \tag{18}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow(m1\_subset\_1\ (k3\_comseq\_2\ X0)\ k2\_numbers) \tag{19}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow((v1\_funct\_1\ (k10\_comseq\_3\ X0))\wedge((v1\_funct\_2\ (k10\_comseq\_3\ X0)\ k5\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ (k10\_comseq\_3\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers))))) \tag{20}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow((v1\_series\_1\ X0)\Leftrightarrow(v2\_comseq\_2\ (k3\_series\_1\ X0))) \tag{21}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{22}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{23}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))\Rightarrow(((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge(v1\_series\_1\ X0)))\Rightarrow((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge(v2\_comseq\_2\ X0)))) \tag{24}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_membered\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_valued\_0\ X2)) \tag{25}$$

Theorem 1

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers)))))\Rightarrow ((v1\_comseq\_3\ X0)\Rightarrow((v2\_comseq\_2\ X0)\wedge(k3\_comseq\_2\ X0 = k5\_complex1)))$$