

## t29\_seq\_2

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  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  $k5\_numbers : \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $v2\_comseq\_2 : \iota \Rightarrow o$  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  $k2\_seq\_2 : \iota \Rightarrow \iota$  be given. Let  $k55\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k25\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k17\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k3\_comseq\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Let  $k24\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (k17\_complex1 (k3\_xcmplx\_0 X0 X1) = k8\_real\_1 (k17\_complex1 X0) (k17\_complex1 X1))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k2\_numbers) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers)))))) \Rightarrow ((v2\_comseq\_2 X0) \Rightarrow (k2\_seq\_2 (k55\_valued\_1 k5\_numbers k2\_numbers X0) = k17\_complex1 (k3\_comseq\_2 X0))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k2\_numbers) \wedge ((v2\_comseq\_2 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers)))))) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (k3\_comseq\_2 (k25\_valued\_1 k5\_numbers k2\_numbers X0 X1) = k3\_xcmplx\_0 X1 (k3\_comseq\_2 X0))) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1\_membered\ X1)\wedge \\ & (((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1 \\ & X0\ X1))))\wedge(v1\_xcmplx\_0\ X3)))\Rightarrow(k25\_valued\_1\ X0\ X1\ X2\ X3 = k24\_valued\_1 \\ & X2\ X3) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers \\ & k2\_numbers)\wedge((v2\_comseq\_2\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers))))))\wedge(v1\_xcmplx\_0\ X1))\Rightarrow \\ & ((v1\_funct\_1\ (k24\_valued\_1\ X0\ X1))\wedge((v1\_funct\_2\ (k24\_valued\_1 \\ & X0\ X1)\ k5\_numbers\ k2\_numbers)\wedge(v2\_comseq\_2\ (k24\_valued\_1\ X0\ X1)))) \end{aligned} \tag{5}$$

Assume the following.

$$v1\_membered\ k2\_numbers \tag{6}$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1\_membered\ X1)\wedge \\ & (((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1 \\ & X0\ X1))))\wedge(v1\_xcmplx\_0\ X3)))\Rightarrow((v1\_funct\_1\ (k25\_valued\_1\ X0\ X1 \\ & X2\ X3))\wedge(m1\_subset\_1\ (k25\_valued\_1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1 \\ & X0\ k2\_numbers)))) \end{aligned} \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{10}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2 \\ & X1\ k5\_numbers\ k2\_numbers)\wedge((v2\_comseq\_2\ X1)\wedge(m1\_subset\_1\ X1 \\ & (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k2\_numbers))))))\Rightarrow(k2\_seq\_2 \\ & (k55\_valued\_1\ k5\_numbers\ k2\_numbers\ (k25\_valued\_1\ k5\_numbers \\ & k2\_numbers\ X1\ X0)) = k8\_real\_1\ (k17\_complex1\ X0)\ (k17\_complex1 \\ & (k3\_comseq\_2\ X1)))) \end{aligned}$$