# t74_setlim_2 (TMG-WbpMthRGx8REcM2WKvzomumugLm8MNo3)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ 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 $k9\_setfam\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_kurato\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_setlim\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_setlim\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_kurato\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_setlim\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.\forall X2.\ (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X1)) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ k5\_numbers\ (k9\_setfam\_1\ X1)) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X1)))))) \Rightarrow (k8\_nat\_1\ (k9\_setfam\_1\ X1)\ (k4\_setlim\_1\ X1\ (k5\_setlim\_2\ X1\ X3\ X2))\ X0 = k9\_subset\_1\ X1\ X2\ (k8\_nat\_1\ (k9\_setfam\_1\ X1)\ (k4\_setlim\_1\ X1\ X3)\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (k9\_setfam\_1\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0)))))) \Rightarrow (k3\_kurato\_0\ X0\ X1 = k4\_kurato\_0\ X0\ (k2\_setlim\_1\ X0\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.\forall X2.\ (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X1)) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ k5\_numbers\ (k9\_setfam\_1\ X1)) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X1)))))) \Rightarrow (k8\_nat\_1\ (k9\_setfam\_1\ X1)\ (k2\_setlim\_1\ X1\ (k5\_setlim\_2\ X1\ X3\ X2))\ X0 = k9\_subset\_1\ X1\ X2\ (k8\_nat\_1\ (k9\_setfam\_1\ X1)\ (k2\_setlim\_1\ X1\ X3)\ X0)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(\forall X2.\ ((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow(k3\_prob\_1\ X0\ (k5\_setlim\_2\ X0\ X2\ X1) = k9\_subset\_1\ X0\ X1\ (k3\_prob\_1\ X0\ X2)))) \tag{4}$$

Assume the following.

$$\forall X0.k9\_setfam\_1\ X0 = k1\_zfmisc\_1\ X0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0)))\Rightarrow((v1\_funct\_1\ (k5\_setlim\_2\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k5\_setlim\_2\ X0\ X1\ X2)\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ (k5\_setlim\_2\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0)))))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow((v1\_funct\_1\ (k4\_setlim\_1\ X0\ X1))\wedge((v1\_funct\_2\ (k4\_setlim\_1\ X0\ X1)\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ (k4\_setlim\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0)))))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow((v1\_funct\_1\ (k2\_setlim\_1\ X0\ X1))\wedge((v1\_funct\_2\ (k2\_setlim\_1\ X0\ X1)\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ (k2\_setlim\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0)))))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow((X3 = k5\_setlim\_2\ X0\ X1\ X2)\Leftrightarrow(\forall X4.(m1\_subset\_1\ X4\ k5\_numbers)\Rightarrow(k8\_nat\_1\ (k9\_setfam\_1\ X0)\ X3\ X4 = k9\_subset\_1\ X0\ X2\ (k8\_nat\_1\ (k9\_setfam\_1\ X0)\ X1\ X4))))))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow(k4\_kurato\_0\ X0\ X1 = k3\_prob\_1\ X0\ (k4\_setlim\_1\ X0\ X1)) \tag{10}$$

**Theorem 1**

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow(k3\_kurato\_0\ X0\ (k5\_setlim\_2\ X0\ X2\ X1) = k9\_subset\_1\ X0\ X1\ (k3\_kurato\_0\ X0\ X2)))$$