

t87_setlim_2 (TMKyBrLxm- MgX1LJ5uMLxkgsm4zJhXwpR2x2)

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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 $v3_kurato_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_kurato_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_setlim_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_setlim_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_setlim_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_kurato_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_setlim_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X0)))))) \Rightarrow ((v3_kurato_0 X2 X0) \Rightarrow (k4_kurato_0 X0 (k7_setlim_2 X0 \\ & X2 X1) = k7_subset_1 X0 X1 (k4_kurato_0 X0 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X0)))))) \Rightarrow (k4_kurato_0 X0 (k8_setlim_2 X0 X2 X1) = k7_subset_1 X0 \\ & (k4_kurato_0 X0 X2) X1)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X0)))))) \Rightarrow ((v3_kurato_0 X2 X0) \Rightarrow (k3_kurato_0 X0 (k9_setlim_2 X0 \\ & X2 X1) = k5_subset_1 X0 X1 (k3_kurato_0 X0 X2)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X0)))))) \Rightarrow ((v3_kurato_0 X2 X0) \Rightarrow (k3_kurato_0 X0 (k7_setlim_2 X0 \\ & X2 X1) = k7_subset_1 X0 X1 (k3_kurato_0 X0 X2)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X0)))))) \Rightarrow (k3_kurato_0 X0 (k8_setlim_2 X0 X2 X1) = k7_subset_1 X0 \\ & (k3_kurato_0 X0 X2) X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers \\ & (k9_setfam_1 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge \\ & ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge (m1_subset_1 X2 \\ & (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 X0)))))) \Rightarrow \\ & (k4_kurato_0 X0 (k2_setlim_2 X0 X1 X2) = k4_subset_1 X0 (k4_kurato_0 \\ & X0 X1) (k4_kurato_0 X0 X2))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers \\ & (k9_setfam_1 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge \\ & ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge (m1_subset_1 X2 \\ & (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 X0)))))) \Rightarrow \\ & (((v3_kurato_0 X1 X0) \vee (v3_kurato_0 X2 X0)) \Rightarrow (k3_kurato_0 X0 (k2_setlim_2 \\ & X0 X1 X2) = k4_subset_1 X0 (k3_kurato_0 X0 X1) (k3_kurato_0 X0 X2)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X0)))))) \Rightarrow (k9_setlim_2 X0 X2 X1 = k2_setlim_2 X0 (k7_setlim_2 X0 \\ & X2 X1) (k8_setlim_2 X0 X2 X1))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_funct_1 X1)\wedge((v1_funct_2 \\ & X1 k5_numbers (k9_setfam_1 X0))\wedge(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers (k9_setfam_1 X0))))))\wedge(m1_subset_1 \\ & X2 (k1_zfmisc_1 X0)))\Rightarrow((v1_funct_1 (k8_setlim_2 X0 X1 X2))\wedge((\\ & v1_funct_2 (k8_setlim_2 X0 X1 X2) k5_numbers (k9_setfam_1 X0))\wedge \\ & (m1_subset_1 (k8_setlim_2 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0)))))) \end{aligned} \tag{10}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_funct_1 X1)\wedge((v1_funct_2 \\ & X1 k5_numbers (k9_setfam_1 X0))\wedge(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers (k9_setfam_1 X0))))))\wedge(m1_subset_1 \\ & X2 (k1_zfmisc_1 X0)))\Rightarrow((v1_funct_1 (k7_setlim_2 X0 X1 X2))\wedge((\\ & v1_funct_2 (k7_setlim_2 X0 X1 X2) k5_numbers (k9_setfam_1 X0))\wedge \\ & (m1_subset_1 (k7_setlim_2 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0)))))) \end{aligned} \tag{11}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers \\ & (k9_setfam_1 X0))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0))))))\Rightarrow((v3_kurato_0 X1 X0)\Leftrightarrow(k4_kurato_0 \\ & X0 X1 = k3_kurato_0 X0 X1)) \end{aligned} \tag{12}$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(\forall X2. \\ & ((v1_funct_1 X2)\wedge((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0))\wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\ & X0))))))\Rightarrow((v3_kurato_0 X2 X0)\Rightarrow(k4_kurato_0 X0 (k9_setlim_2 X0 \\ & X2 X1) = k5_subset_1 X0 X1 (k4_kurato_0 X0 X2)))) \end{aligned}$$