

t84_setlim_2

(TMYDd4cwow8SiuKziB7rB2Q3DQ1XKJ5qt1B)

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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 $k4_kurato_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_setlim_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_setlim_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.\forall X2. \\
 & (m1_subset_1 X2 (k1_zfmisc_1 X1)) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge \\
 & ((v1_funct_2 X3 k5_numbers (k9_setfam_1 X1)) \wedge (m1_subset_1 X3 \\
 & (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 X1)))))) \Rightarrow \\
 & (k8_nat_1 (k9_setfam_1 X1) (k4_setlim_1 X1 (k8_setlim_2 X1 X3 X2)) \\
 & X0 = k7_subset_1 X1 (k8_nat_1 (k9_setfam_1 X1) (k4_setlim_1 X1 X3) \\
 & X0) X2)))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\
 & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (k9_setfam_1 X0)) \wedge \\
 & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k9_setfam_1 \\
 & X0)))))) \Rightarrow (k3_prob_1 X0 (k8_setlim_2 X0 X2 X1) = k7_subset_1 X0 (\\
 & k3_prob_1 X0 X2) X1))
 \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.k9_setfam_1 X0 = k1_zfmisc_1 X0 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_funct_1 X1)\wedge((v1_funct_2 \\ & X1 k5_numbers (k9_setfam_1 X0))\wedge(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers (k9_setfam_1 X0))))))\wedge(m1_subset_1 \\ & X2 (k1_zfmisc_1 X0)))\Rightarrow((v1_funct_1 (k8_setlim_2 X0 X1 X2))\wedge((\\ & v1_funct_2 (k8_setlim_2 X0 X1 X2) k5_numbers (k9_setfam_1 X0))\wedge \\ & (m1_subset_1 (k8_setlim_2 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers \\ & (k9_setfam_1 X0))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0))))))\Rightarrow((v1_funct_1 (k4_setlim_1 \\ & X0 X1))\wedge((v1_funct_2 (k4_setlim_1 X0 X1) k5_numbers (k9_setfam_1 \\ & X0))\wedge(m1_subset_1 (k4_setlim_1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers \\ & (k9_setfam_1 X0))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0))))))\Rightarrow(\forall X2.(m1_subset_1 X2 \\ & (k1_zfmisc_1 X0))\Rightarrow(\forall X3.(((v1_funct_1 X3)\wedge((v1_funct_2 \\ & X3 k5_numbers (k9_setfam_1 X0))\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers (k9_setfam_1 X0))))))\Rightarrow((X3 = k8_setlim_2 \\ & X0 X1 X2)\Leftrightarrow(\forall X4.(m1_subset_1 X4 k5_numbers)\Rightarrow(k8_nat_1 (\\ & k9_setfam_1 X0) X3 X4 = k7_subset_1 X0 (k8_nat_1 (k9_setfam_1 X0) \\ & X1 X4) X2)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers \\ & (k9_setfam_1 X0))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (k9_setfam_1 X0))))))\Rightarrow(k4_kurato_0 X0 X1 = k3_prob_1 \\ & X0 (k4_setlim_1 X0 X1)) \end{aligned} \quad (7)$$

Theorem 1

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