

t19_limfunc3

(TMEzKk2QUkdRZ7t3oPqm5mxX1jcrt6V5x4K)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_limfunc3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_limfunc3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k56_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r5_limfunc2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r6_limfunc2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_limfunc2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_limfunc2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & (((r5_limfunc2 X1 X0) \vee (r6_limfunc2 X1 X0)) \Rightarrow (r5_limfunc2 (k56_valued_1 \\ & k1_numbers k1_numbers X1) X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & (((r2_limfunc2 X1 X0) \vee (r3_limfunc2 X1 X0)) \Rightarrow (r2_limfunc2 (k56_valued_1 \\ & k1_numbers k1_numbers X1) X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & ((r3_limfunc3 X1 X0) \Leftrightarrow ((r3_limfunc2 X1 X0) \wedge (r6_limfunc2 X1 X0)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & ((r2_limfunc3 X1 X0) \Leftrightarrow ((r2_limfunc2 X1 X0) \wedge (r5_limfunc2 X1 X0)))) \end{aligned} \tag{4}$$

Assume the following.

$$v3_membered k1_numbers \tag{5}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v1_membered\ X1)\wedge((v1_funct_1 \\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))))))\Rightarrow((v1_funct_1 \\ (k56_valued_1\ X0\ X1\ X2))\wedge(m1_subset_1\ (k56_valued_1\ X0\ X1\ X2)\ (\\ k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k1_numbers)))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(v1_membered\ X0) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(\forall X1.((v1_funct_1 \\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers))))))\Rightarrow \\ (((r2_limfunc3\ X1\ X0)\vee(r3_limfunc3\ X1\ X0))\Rightarrow(r2_limfunc3\ (k56_valued_1 \\ k1_numbers\ k1_numbers\ X1)\ X0)) \end{aligned}$$