

t32_limfunc2

(TMF3uQ5ZFScVdepL74qYVTjuENw5aDF2xwn)

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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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v5_valued_0 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_seq_2 : \iota \Rightarrow o$ be given. Let $r6_limfunc2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_valued_0 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v2_valued_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\
 & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\
 & ((\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 X2 \\
 & X0) \wedge (\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 \\
 & X2 X3) \wedge (\neg r1_xxreal_0 X3 X0) \wedge (X3 \in k1_relset_1 k1_numbers X1)))))) \Rightarrow \\
 & ((\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\neg(v7_valued_0 (k2_partfun1 \\
 & k1_numbers k1_numbers X1 (k2_rcomp_1 X0 (k7_real_1 X0 X2)))))) \wedge (\\
 & \neg v2_seq_2 (k2_partfun1 k1_numbers k1_numbers X1 (k2_rcomp_1 X0 \\
 & (k7_real_1 X0 X2)))))) \vee (r6_limfunc2 X1 X0)))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X2) \wedge \\
 & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k2_partfun1 \\
 & X0 X1 X2 X3 = k5_relat_1 X2 X3)
 \end{aligned} \tag{2}$$

Assume the following.

$$v3_membered k1_numbers \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X2) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow ((v1_funct_1 \\ & (k2_partfun1 X0 X1 X2 X3)) \wedge (m1_subset_1 (k2_partfun1 X0 X1 X2 X3) \\ & (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v2_valued_0 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v2_valued_0 \\ & X0) \wedge (v5_valued_0 X0)))) \Rightarrow ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge \\ & ((v2_valued_0 X0) \wedge (v7_valued_0 X0)))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (v3_membered X1) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v3_valued_0 X2)) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1. ((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & ((\forall X2. (m1_subset_1 X2 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 X2 \\ & X0) \wedge (\forall X3. (m1_subset_1 X3 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 \\ & X2 X3) \wedge (\neg r1_xxreal_0 X3 X0) \wedge (X3 \in k1_relset_1 k1_numbers X1)))))) \Rightarrow \\ & ((\forall X2. (m1_subset_1 X2 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 X2 \\ & k6_numbers) \wedge ((v5_valued_0 (k2_partfun1 k1_numbers k1_numbers \\ & X1 (k2_rcomp_1 X0 (k7_real_1 X0 X2)))) \wedge (\neg v2_seq_2 (k2_partfun1 \\ & k1_numbers k1_numbers X1 (k2_rcomp_1 X0 (k7_real_1 X0 X2)))))) \vee \\ & (r6_limfunc2 X1 X0)))) \end{aligned}$$