

t32_limfunc3 (TM- LipvubfE4YxBmzzwZKV6dX7ToZnMKrWuT)

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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 $r1_limfunc3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k32_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_limfunc3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $r4_limfunc2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_limfunc2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_limfunc2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_limfunc2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & ((r4_limfunc2 X1 X0) \Rightarrow ((r4_limfunc2 (k32_valued_1 k1_numbers \\ & k1_numbers X1) X0) \wedge (k2_limfunc2 (k32_valued_1 k1_numbers k1_numbers \\ & X1) X0 = k1_real_1 (k2_limfunc2 X1 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & ((r1_limfunc2 X1 X0) \Rightarrow ((r1_limfunc2 (k32_valued_1 k1_numbers \\ & k1_numbers X1) X0) \wedge (k1_limfunc2 (k32_valued_1 k1_numbers k1_numbers \\ & X1) X0 = k1_real_1 (k1_limfunc2 X1 X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & (((r1_limfunc2 X1 X0) \wedge ((r4_limfunc2 X1 X0) \wedge (k1_limfunc2 X1 X0 = \\ & k2_limfunc2 X1 X0))) \Rightarrow ((r1_limfunc3 X1 X0) \wedge ((k1_limfunc3 X1 X0 = \\ & k1_limfunc2 X1 X0) \wedge (k1_limfunc3 X1 X0 = k2_limfunc2 X1 X0)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & ((r1_limfunc3 X1 X0) \Rightarrow ((r1_limfunc2 X1 X0) \wedge ((r4_limfunc2 X1 X0) \wedge \\ & ((k1_limfunc2 X1 X0 = k2_limfunc2 X1 X0) \wedge ((k1_limfunc3 X1 X0 = k1_limfunc2 \\ & X1 X0) \wedge (k1_limfunc3 X1 X0 = k2_limfunc2 X1 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$v3_membered k1_numbers \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v3_membered X1) \wedge ((v1_funct_1 \\ & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow ((v1_funct_1 \\ & (k32_valued_1 X0 X1 X2)) \wedge (m1_subset_1 (k32_valued_1 X0 X1 X2) (\\ & k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\ & X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & ((r1_limfunc3 X1 X0) \Rightarrow ((r1_limfunc3 (k32_valued_1 k1_numbers \\ & k1_numbers X1) X0) \wedge (k1_limfunc3 (k32_valued_1 k1_numbers k1_numbers \\ & X1) X0 = k1_real_1 (k1_limfunc3 X1 X0)))) \end{aligned}$$