

t2_l_hospit

(TMGUmD8MQisAzBxN2jNuBZzfRGoZfXYxkrw)

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Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $r4_limfunc2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_limfunc2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v2_comseq_2 : \iota \Rightarrow o$ be given. Let $k2_seq_2 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_limfunc1 : \iota \Rightarrow \iota$ be given. Let $k8_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k1_numbers k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow \\ & ((r4_limfunc2 X0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow \\ & ((X2 = k2_limfunc2 X0 X1) \Leftrightarrow (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 \\ & X3 k5_numbers k1_numbers) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers)))) \Rightarrow (((v2_comseq_2 X3) \wedge ((k2_seq_2 X3 = \\ & X1) \wedge (r1_tarski (k2_relset_1 k1_numbers X3) (k9_subset_1 k1_numbers \\ & (k1_relset_1 k1_numbers X0) (k3_limfunc1 X1)))) \Rightarrow ((v2_comseq_2 \\ & (k8_funct_2 k5_numbers k1_numbers k1_numbers X3 X0) \wedge (k2_seq_2 \\ & (k8_funct_2 k5_numbers k1_numbers k1_numbers X3 X0) = X2))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
& k1_numbers k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow \\
& ((r4_limfunc2 X0 X1) \Leftrightarrow ((\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow \\
& (\neg(\neg r1_xxreal_0 X2 X1) \wedge (\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow \\
& (\neg(\neg r1_xxreal_0 X2 X3) \wedge ((\neg r1_xxreal_0 X3 X1) \wedge (X3 \in k1_relset_1 \\
& k1_numbers X0)))))) \wedge (\exists X2.(m1_subset_1 X2 k1_numbers) \wedge \\
& (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 k5_numbers k1_numbers) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
& (((v2_comseq_2 X3) \wedge ((k2_seq_2 X3 = X1) \wedge (r1_tarski (k2_relset_1 \\
& k1_numbers X3) (k9_subset_1 k1_numbers (k1_relset_1 k1_numbers \\
& X0) (k3_limfunc1 X1)))))) \Rightarrow ((v2_comseq_2 (k8_funct_2 k5_numbers \\
& k1_numbers k1_numbers X3 X0) \wedge (k2_seq_2 (k8_funct_2 k5_numbers \\
& k1_numbers k1_numbers X3 X0) = X2)))))))))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
& k1_numbers k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (((r4_limfunc2 X0 X1) \wedge \\
& (k2_limfunc2 X0 X1 = X2)) \Rightarrow ((\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow \\
& (\neg(\neg r1_xxreal_0 X3 X1) \wedge (\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow \\
& (\neg(\neg r1_xxreal_0 X3 X4) \wedge ((\neg r1_xxreal_0 X4 X1) \wedge (X4 \in k1_relset_1 \\
& k1_numbers X0)))))) \wedge (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 \\
& X3 k5_numbers k1_numbers) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\
& k5_numbers k1_numbers)))))) \Rightarrow (((v2_comseq_2 X3) \wedge ((k2_seq_2 X3 = \\
& X1) \wedge (r1_tarski (k2_relset_1 k1_numbers X3) (k9_subset_1 k1_numbers \\
& k1_relset_1 k1_numbers X0) (k3_limfunc1 X1)))))) \Rightarrow ((v2_comseq_2 \\
& (k8_funct_2 k5_numbers k1_numbers k1_numbers X3 X0) \wedge (k2_seq_2 \\
& (k8_funct_2 k5_numbers k1_numbers k1_numbers X3 X0) = X2)))))) \wedge \\
& (((\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 X3 \\
& X1) \wedge (\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 \\
& X3 X4) \wedge ((\neg r1_xxreal_0 X4 X1) \wedge (X4 \in k1_relset_1 k1_numbers X0)))))) \wedge \\
& (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 k5_numbers k1_numbers) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
& (((v2_comseq_2 X3) \wedge ((k2_seq_2 X3 = X1) \wedge (r1_tarski (k2_relset_1 \\
& k1_numbers X3) (k9_subset_1 k1_numbers (k1_relset_1 k1_numbers \\
& X0) (k3_limfunc1 X1)))))) \Rightarrow ((v2_comseq_2 (k8_funct_2 k5_numbers \\
& k1_numbers k1_numbers X3 X0) \wedge (k2_seq_2 (k8_funct_2 k5_numbers \\
& k1_numbers k1_numbers X3 X0) = X2)))))) \Rightarrow ((r4_limfunc2 X0 X1) \wedge (k2_limfunc2 \\
& X0 X1 = X2))))))
\end{aligned}$$