

l70_rinfsup1

(TMaGLvkR56hFfHF9pZU9KHZLGWcAZjwfp7A)

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Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_valued_0 : \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_rinfsup1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_seq_4 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\
& (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
& ((v7_valued_0 X0) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((X2 = \\
& ReplSep (toset (\lambda X3 : \iota.m2_subset_1 X3 k1_numbers k5_numbers)) \\
& (\lambda X3 : \iota.r1_xxreal_0 X1 X3) (\lambda X3 : \iota.k1_seq_1 X0 X3)) \Rightarrow \\
& (k5_seq_4 X2 = k1_seq_1 X0 X1))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\
& (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
& (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
& ((X1 = k3_rinfsup1 X0) \Leftrightarrow (\forall X2.(m2_subset_1 X2 k1_numbers \\
& k5_numbers) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 k1_numbers)) \Rightarrow \\
& ((X3 = ReplSep (toset (\lambda X4 : \iota.m2_subset_1 X4 k1_numbers k5_numbers)) \\
& (\lambda X4 : \iota.r1_xxreal_0 X2 X4) (\lambda X4 : \iota.k1_seq_1 X0 X4)) \Rightarrow \\
& (k1_seq_1 X1 X2 = k5_seq_4 X3))))))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow ((v7_valued_0 \\
& X1) \Rightarrow (k1_seq_1 (k3_rinfsup1 X1) X0 = k1_seq_1 X1 X0))
\end{aligned}$$