

t33_rinfsup1

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Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k1_numbers : \iota$ 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 $v1_comseq_2 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_xxreal_2 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k18_complex1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((v5_xxreal_2 \\ & X0) \Leftrightarrow (\exists X1.(v1_xxreal_0 X1) \wedge ((\neg r1_xxreal_0 X1 k6_numbers) \wedge \\ & (\forall X2.(v1_xxreal_0 X2) \Rightarrow (\neg (X2 \in X0) \wedge (r1_xxreal_0 X1 (k18_complex1 \\ & X2))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\ & ((v1_comseq_2 X0) \Leftrightarrow (\exists X1.(v1_xxreal_0 X1) \wedge ((\neg r1_xxreal_0 \\ & X1 k6_numbers) \wedge (\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow \\ & (\neg r1_xxreal_0 X1 (k18_complex1 (k1_seq_1 X0 X2))))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\ & ((v1_comseq_2 X0) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((X2 = \\ & ReplSep (toset (\lambda X3 : \iota.m2_subset_1 X3 k1_numbers k5_numbers)) \\ & (\lambda X3 : \iota.r1_xxreal_0 X1 X3) (\lambda X3 : \iota.k1_seq_1 X0 X3)) \Rightarrow \\ & (v5_xxreal_2 X2)))))) \end{aligned}$$