

l1_rinfsup1

(TMTK2wBE49PsnS1AfF9v1R3spdugxvYstCu)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge ((r1_xxreal_0 X1 X2) \wedge (r1_xxreal_0 X2 (k6_xcmplx_0 X1 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X2) \Rightarrow ((r1_xxreal_0 X1 k6_numbers) \vee \\ & ((\neg r1_xxreal_0 X2 (k6_xcmplx_0 X0 X1)) \wedge (\neg r1_xxreal_0 (k2_xcmplx_0 X2 X1) X0)))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((r1_xxreal_0 X2 k6_numbers) \vee \\ & ((\neg r1_xxreal_0 (k2_xcmplx_0 X1 X2) X0) \wedge (\neg r1_xxreal_0 X1 (k6_xcmplx_0 X0 X2)))))) \end{aligned}$$