

t113_xreal_1

(TMcyzkevkiJVUtcNQJHrwATcpXNfGpJYkzm)

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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 $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge ((\neg r1_xxreal_0 \\ & (k3_xcmplx_0 X2 X0) X1) \wedge (r1_xxreal_0 X2 (k7_xcmplx_0 X1 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 (k3_xcmplx_0 X1 X0) X2) \Rightarrow ((r1_xxreal_0 \\ & X0 k6_numbers) \vee (r1_xxreal_0 X1 (k7_xcmplx_0 X2 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow (k7_xcmplx_0 (k7_xcmplx_0 X0 X1) X2 = k7_xcmplx_0 \\ & (k7_xcmplx_0 X0 X2) X1))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v1_xreal_0 (k7_xcmplx_0 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xcmplx_0 X0) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\neg(\neg r1_xxreal_0 \\ & X0 k6_numbers) \wedge ((\neg r1_xxreal_0 X1 k6_numbers) \wedge ((\neg r1_xxreal_0 \\ & (k3_xcmplx_0 X3 X0) (k7_xcmplx_0 X2 X1)) \wedge (r1_xxreal_0 (k3_xcmplx_0 \\ & X3 X1) (k7_xcmplx_0 X2 X0)))))))) \end{aligned}$$