

l4_wsierp_1

(TMV9GsmA7ujZwwyEDGzwD7abGaQkQgjVGpB)

October 27, 2020

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.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 k6_numbers X0) \wedge (r1_xxreal_0 (k6_xcmplx_0 X1 X0) X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 k6_numbers) \Rightarrow (r1_xxreal_0 X1 (k6_xcmplx_0 X1 X0)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge (r1_xxreal_0 X1 (k6_xcmplx_0 X1 X0)))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 k6_numbers X0) \Rightarrow (r1_xxreal_0 (k6_xcmplx_0 X1 X0) X1))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 k6_numbers) \Rightarrow (r1_xxreal_0 (k2_xcmplx_0 X0 X1) X1))) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 k6_numbers X0) \Rightarrow (r1_xxreal_0 X1 (k2_xcmplx_0 X0 X1)))) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2.(v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 (k2_xcmplx_0 X1 X2)) \Leftrightarrow (r1_xxreal_0 (k6_xcmplx_0 X0 X1) X2)))) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 (k2_xcmplx_0 X0 X1) X2) \Leftrightarrow (r1_xxreal_0 \\ & X0 (k6_xcmplx_0 X2 X1)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 (k6_xcmplx_0 X1 X2)) \Rightarrow (r1_xxreal_0 \\ & X2 (k6_xcmplx_0 X1 X0)))))) \end{aligned} \quad (9)$$

Theorem 1

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