

t124_xreal_1 (TMUcc-
tKv8TDK7HjPqVbd1vgzd5yXGqL9dXL)

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 $k5_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (&(\neg(\neg r1_xxreal_0 k6_numbers X0) \wedge \\ &(r1_xxreal_0 k6_numbers (k5_xcmplx_0 X0))) \wedge (\neg(\neg r1_xxreal_0 \\ &k6_numbers (k5_xcmplx_0 X0)) \wedge (r1_xxreal_0 k6_numbers X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (&(\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge \\ &(r1_xxreal_0 (k5_xcmplx_0 X0) k6_numbers)) \wedge (\neg(\neg r1_xxreal_0 \\ &(k5_xcmplx_0 X0) k6_numbers) \wedge (r1_xxreal_0 X0 k6_numbers))) \end{aligned} \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (v1_xreal_0 X0))) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (&(\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ &(v1_xreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow (\\ &r1_xxreal_0 X0 X2)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((v1_xcmplx_0 (k5_xcmplx_0 X0)) \wedge (v1_xreal_0 (k5_xcmplx_0 X0))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow((r1_xreal_0 X0 X1)\vee(r1_xreal_0 X1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xreal_0 X0) \quad (9)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow(\neg(\neg r1_xreal_0 k6_numbers X0)\wedge((\neg r1_xreal_0 X1 k6_numbers)\wedge(r1_xreal_0 (k5_xcmplx_0 X1) (k5_xcmplx_0 X0))))))$$