

t164_xreal_1 (TMbmHiwkASy- CUoavyYXhg1VfGGGLVMJ3ExZ)

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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 $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ 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 $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\neg(\neg r1_xxreal_0 \\ & k6_numbers X0) \wedge ((r1_xxreal_0 X1 X0) \wedge (\neg r1_xxreal_0 k6_numbers \\ & X2) \wedge (\neg r1_xxreal_0 X2 X3) \wedge (r1_xxreal_0 (k3_xcmplx_0 X1 X3) (k3_xcmplx_0 \\ & X0 X2)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{2}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k2_xcmplx_0 X0 k6_numbers = X0) \tag{3}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 (k4_xcmplx_0 np_1) = k4_xcmplx_0 X0) \tag{4}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \tag{5}$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \tag{6}$$

Assume the following.

$$v1_xboole_0 \ np_0 \tag{7}$$

Assume the following.

$$k4_xcmplx_0 \ (k4_xcmplx_0 \ np_1) = np_1 \tag{8}$$

Assume the following.

$$k2_xcmplx_0 \ np_1 \ (k4_xcmplx_0 \ np_1) = np_0 \tag{9}$$

Assume the following.

$$\neg r1_xxreal_0 \ np_1 \ (k4_xcmplx_0 \ np_1) \tag{10}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{11}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 \ X0) \Rightarrow (\forall X1.(v1_xreal_0 \ X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 \ X2) \Rightarrow (\forall X3.(v1_xreal_0 \ X3) \Rightarrow (\neg(\neg r1_xxreal_0 \\ & X1 \ X0) \wedge ((r1_xxreal_0 \ X2 \ X3) \wedge (r1_xxreal_0 \ (k2_xcmplx_0 \ X1 \ X3) \ (\\ & k2_xcmplx_0 \ X0 \ X2))))))) \end{aligned} \tag{12}$$

Assume the following.

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (v1_xreal_0 \ (k4_xcmplx_0 \ X0))) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 \ X0) \wedge (v1_xcmplx_0 \ X1)) \Rightarrow (k3_xcmplx_0 \ X0 \ X1 = k3_xcmplx_0 \ X1 \ X0) \tag{14}$$

Assume the following.

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow (v1_xcmplx_0 \ X0) \tag{15}$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xreal_0 \ X0) \tag{16}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xreal_0 \ X0) \Rightarrow (\forall X1.(v1_xreal_0 \ X1) \Rightarrow (\neg(\neg \\ & r1_xxreal_0 \ (k4_xcmplx_0 \ np_1) \ X0) \wedge ((r1_xxreal_0 \ X1 \ (k4_xcmplx_0 \\ & np_1)) \wedge (r1_xxreal_0 \ (k3_xcmplx_0 \ X0 \ X1) \ np_1)))) \end{aligned}$$