

l84_toprealb
(TMHxiU6v6uHCAofUT8aW7YaekoX2RVRC3Dr)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k4_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $k1_xboole_0 : \iota$ 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 $k5_numbers : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k3_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k31_sin_cos : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (k4_rcomp_1 X0 X1 = k3_xxreal_1 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (k3_rcomp_1 X0 X1 = k2_xxreal_1 X0 X1) \quad (5)$$

Assume the following.

$$k32_sin_cos = k31_sin_cos \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k1_real_1 X0 = k4_xcmplx_0 X0) \quad (7)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (v1_xreal_0 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k4_xcmplx_0 (k4_xcmplx_0 X0) = X0) \quad (9)$$

Assume the following.

$$(v1_xreal_0 k31_sin_cos) \wedge (v2_xxreal_0 k31_sin_cos) \quad (10)$$

Assume the following.

$$\forall X0.((\neg v3_xxreal_0 X0) \wedge (v1_xreal_0 X0)) \Rightarrow ((v1_xcmplx_0 (k4_xcmplx_0 X0)) \wedge (\neg v2_xxreal_0 (k4_xcmplx_0 X0))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_xreal_0 X0) \wedge (v3_xxreal_0 X0)) \wedge ((v1_xreal_0 X1) \wedge (\neg v3_xxreal_0 X1))) \Rightarrow (\neg v1_xboole_0 (k2_xxreal_1 X0 X1)) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_xreal_0 X0) \wedge (\neg v2_xxreal_0 X0)) \wedge ((v1_xreal_0 X1) \wedge (v2_xxreal_0 X1))) \Rightarrow (\neg v1_xboole_0 (k3_xxreal_1 X0 X1)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k4_rcomp_1 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (m1_subset_1 (k3_rcomp_1 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k1_real_1 X0) k1_numbers) \quad (16)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 X0)\wedge(v2_xxreal_0 X0))\Rightarrow((\neg v1_xboole_0 X0)\wedge((v1_xxreal_0 X0)\wedge(\neg v3_xxreal_0 X0))) \quad (18)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xcmplx_0 X0) \quad (19)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (20)$$

Theorem 1

$$\begin{aligned} & ((\neg v1_xboole_0 (k3_rcomp_1 (k1_real_1 np_1) np_1))\wedge(m1_subset_1 \\ & (k3_rcomp_1 (k1_real_1 np_1) np_1) (k1_zfmisc_1 k1_numbers)))\wedge \\ & ((\neg v1_xboole_0 (k4_rcomp_1 k6_numbers k32_sin_cos))\wedge(m1_subset_1 \\ & (k4_rcomp_1 k6_numbers k32_sin_cos) (k1_zfmisc_1 k1_numbers))) \end{aligned}$$