

t34_rat_1

(TMU29fiQKpbE7X9njUw3VqDHTd16ZBdf4XD)

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Let $v1_rat_1 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_rat_1 : \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k2_rat_1 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_rat_1 X0) \Rightarrow ((r1_xreal_0 X0 (k1_real_1 np_1)) \Leftrightarrow (r1_xreal_0 (k2_rat_1 X0) (k1_real_1 (k1_rat_1 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xreal_0 X0 X1) \Leftrightarrow (r1_xreal_0 (k4_xcmplx_0 X1) (k4_xcmplx_0 X0)))) \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k1_real_1 X0 = k4_xcmplx_0 X0) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k4_xcmplx_0 (k4_xcmplx_0 X0) = X0) \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((v1_xcmplx_0 (k4_xcmplx_0 X0)) \wedge (v1_xreal_0 (k4_xcmplx_0 X0))) \quad (7)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 \ X0)\wedge((\neg v1_xboole_0 \ X1)\wedge \\ (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0))))\Rightarrow(\forall X2.(m2_subset_1 \\ X2 \ X0 \ X1)\Rightarrow(m1_subset_1 \ X2 \ X0)) \end{aligned} \quad (9)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (10)$$

Assume the following.

$$\forall X0.(v1_rat_1 \ X0)\Rightarrow(v1_int_1 \ (k2_rat_1 \ X0)) \quad (11)$$

Assume the following.

$$\forall X0.(v1_rat_1 \ X0)\Rightarrow(m2_subset_1 \ (k1_rat_1 \ X0) \ k1_numbers \ k5_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xreal_0 \ X0)\Rightarrow(v1_xcmplx_0 \ X0) \quad (13)$$

Assume the following.

$$\forall X0.(v1_int_1 \ X0)\Rightarrow(v1_xreal_0 \ X0) \quad (14)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers)\Rightarrow(v1_xreal_0 \ X0) \quad (15)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_rat_1 \ X0)\Rightarrow((r1_xxreal_0 \ X0 \ (k1_real_1 \ np_1))\Leftrightarrow \\ (r1_xxreal_0 \ (k1_rat_1 \ X0) \ (k4_xcmplx_0 \ (k2_rat_1 \ X0)))) \end{aligned}$$