

t10_rat_1

(TMMhJVDL2tM2ej8RvErJPRpSCLQyT7428Yr)

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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 $k1_rat_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $c7_xreal_0 : \iota$ be given. Let $c2_arytm_0 : \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k6_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg(k6_numbers \neq X0) \wedge (r1_xreal_0 X0 k6_numbers)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (2)$$

Assume the following.

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

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (4)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (5)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(v1_rat_1 X0) \Rightarrow (m2_subset_1 (k1_rat_1 X0) k1_numbers k5_numbers) \quad (7)$$

Assume the following.

$$c7_xreal_0 = k6_numbers \quad (8)$$

Assume the following.

$$c2_arytm_0 = k6_numbers \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_rat_1 X0) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_numbers \\ k5_numbers) \Rightarrow ((X1 = k1_rat_1 X0) \Leftrightarrow ((X1 \neq k6_numbers) \wedge ((\exists X2. \\ (v1_int_1 X2) \wedge (X0 = k6_real_1 X2 X1)) \wedge (\forall X2.(v1_int_1 X2) \Rightarrow \\ (\forall X3.(m2_subset_1 X3 k1_numbers k5_numbers) \Rightarrow ((X0 = k6_real_1 \\ X2 X3) \Rightarrow ((X3 = k6_numbers) \vee (r1_xreal_0 X1 X3)))))))))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (11)$$

Theorem 1 $\forall X0.(v1_rat_1 X0) \Rightarrow (\neg r1_xreal_0 (k1_rat_1 X0) k6_numbers).$