

t27_rcomp_3 (TMFKo- JVup2NwqabvW6gmmeQihroBLZBUUnFt)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v6_xxreal_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v3_xxreal_2 : \iota \Rightarrow o$ be given. Let $v4_xxreal_2 : \iota \Rightarrow o$ be given. Let $k5_seq_4 : \iota \Rightarrow \iota$ be given. Let $k3_limfunc1 : \iota \Rightarrow \iota$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $v1_xxreal_2 : \iota \Rightarrow o$ be given. Let $v2_xxreal_2 : \iota \Rightarrow o$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $k1_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $k1_xxreal_0 : \iota$ be given. Let $k3_seq_4 : \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v2_membered X0) \wedge ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xxreal_2 X0) \wedge ((\neg v2_xxreal_2 X0) \wedge (v6_xxreal_2 X0)))))) \Rightarrow (X0 = k4_xxreal_1 (k2_xxreal_2 X0) (k1_xxreal_2 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow ((v4_xxreal_2 X0) \Leftrightarrow (k1_xxreal_2 X0 \neq k1_xxreal_0)) \quad (2)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow (k5_seq_4 X0 = k3_seq_4 X0) \quad (3)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v3_membered X0) \wedge (v3_xxreal_2 X0))) \Rightarrow (k3_seq_4 X0 = k2_xxreal_2 X0) \quad (4)$$

Assume the following.

$$v3_membered k1_numbers \quad (5)$$

Assume the following.

$$\forall X0.((v3_membered X0) \wedge ((\neg v1_xboole_0 X0) \wedge (v3_xxreal_2 X0))) \Rightarrow ((v1_xxreal_0 (k2_xxreal_2 X0)) \wedge (v1_xreal_0 (k2_xxreal_2 X0))) \quad (6)$$

Assume the following.

$$\forall X0.(v3_membered\ X0) \Rightarrow ((v1_xxreal_2\ X0) \Leftrightarrow ((v3_xxreal_2\ X0) \wedge (k3_seq_4\ X0 \in X0))) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0) \Rightarrow (k3_limfunc1\ X0 = k4_xxreal_1\ X0\ k1_xxreal_0) \quad (8)$$

Assume the following.

$$\forall X0.(v3_membered\ X0) \Rightarrow (v2_membered\ X0) \quad (9)$$

Assume the following.

$$\forall X0.(v3_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v3_membered\ X1)) \quad (10)$$

Assume the following.

$$\forall X0.((v3_membered\ X0) \wedge (v2_xxreal_2\ X0)) \Rightarrow ((v3_membered\ X0) \wedge (v4_xxreal_2\ X0)) \quad (11)$$

Theorem 1

$$\forall X0.((\neg v1_xboole_0\ X0) \wedge ((v6_xxreal_2\ X0) \wedge (m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers)))) \Rightarrow ((v3_xxreal_2\ X0) \Rightarrow ((v4_xxreal_2\ X0) \vee ((k5_seq_4\ X0 \in X0) \vee (X0 = k3_limfunc1\ (k5_seq_4\ X0))))))$$