

t8_radix_1 (TMH-
NEm7JwpRzUYy63KWxcCZhV3c13zntLd7)

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Let $k2_radix_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_2 : \iota$ 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 $np_0 : \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v5_membered : \iota \Rightarrow o$ be given. Let $k4_numbers : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_radix_1 : \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v4_membered : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (v3_xxreal_0 X1)) \Rightarrow (v3_xxreal_0 X0))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k3_power X0 k6_numbers = np_1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_2) \wedge (m2_subset_1 \ np_2 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_2 \ k5_numbers) \wedge (m1_subset_1 \ np_2 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$(m2_subset_1 \ np_0 \ k1_numbers \ k5_numbers) \wedge ((m1_subset_1 \ np_0 \ k5_numbers) \wedge (m1_subset_1 \ np_0 \ k1_numbers)) \quad (7)$$

Assume the following.

$$v1_xboole_0 \ np_0 \quad (8)$$

Assume the following.

$$k6_xcmplx_0 \ np_1 \ np_1 = np_0 \quad (9)$$

Assume the following.

$$k2_xcmplx_0 \ (k4_xcmplx_0 \ np_1) \ np_1 = np_0 \quad (10)$$

Assume the following.

$$r1_xxreal_0 \ np_0 \ np_0 \quad (11)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (12)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (13)$$

Assume the following.

$$v6_membered \ k4_ordinal1 \quad (14)$$

Assume the following.

$$v5_membered \ k4_numbers \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 \ X0) \Rightarrow & (k2_radix_1 \ X0 = ReplSep \ (toset \ (\lambda X1 : \\ & \iota.m1_subset_1 \ X1 \ k4_numbers)) \ (\lambda X1 : \iota.(r1_xxreal_0 \ X1 \\ & (k6_xcmplx_0 \ (k1_radix_1 \ X0) \ np_1)) \wedge (r1_xxreal_0 \ (k2_xcmplx_0 \\ & (k4_xcmplx_0 \ (k1_radix_1 \ X0)) \ np_1) \ X1)) \ (\lambda X1 : \iota.X1)) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0. (v1_int_1 \ X0) \Leftrightarrow (X0 \in k4_numbers) \quad (17)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (k1_radix_1\ X0 = k3_power\ np_2\ X0) \quad (18)$$

Assume the following.

$$\forall X0.((v3_ordinal1\ X0) \wedge (v1_finset_1\ X0)) \Rightarrow (v7_ordinal1\ X0) \quad (19)$$

Assume the following.

$$\forall X0.(v3_membered\ X0) \Rightarrow (v2_membered\ X0) \quad (20)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1) \Rightarrow (v1_finset_1\ X0) \quad (21)$$

Assume the following.

$$\forall X0.((v1_xxreal_0\ X0) \wedge (v2_xxreal_0\ X0)) \Rightarrow ((\neg v1_xboole_0\ X0) \wedge ((v1_xxreal_0\ X0) \wedge (\neg v3_xxreal_0\ X0))) \quad (22)$$

Assume the following.

$$\forall X0.(v4_membered\ X0) \Rightarrow (v3_membered\ X0) \quad (23)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k5_numbers) \Rightarrow (\neg v3_xxreal_0\ X0) \quad (24)$$

Assume the following.

$$\forall X0.(v5_membered\ X0) \Rightarrow (v4_membered\ X0) \quad (25)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (v1_int_1\ X0) \quad (26)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0) \Rightarrow (v1_card_1\ X0) \quad (27)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers) \Rightarrow (v1_xreal_0\ X0) \quad (28)$$

Assume the following.

$$\forall X0.(v6_membered\ X0) \Rightarrow (v5_membered\ X0) \quad (29)$$

Assume the following.

$$\forall X0.(v1_card_1\ X0) \Rightarrow (v3_ordinal1\ X0) \quad (30)$$

Assume the following.

$$\forall X0.(v3_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v1_xreal_0\ X1)) \quad (31)$$

Assume the following.

$$\forall X0.(v2_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v1_xxreal_0\ X1)) \quad (32)$$

Theorem 1 $\forall X0.(X0 \in k2_radix_1\ k6_numbers) \Leftrightarrow (X0 = k6_numbers).$