

t201_xxreal_1

(TMN6Qn5ZHJDeG566cBJaZQDfpG2A9ib27xQ)

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Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarSKI : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_complex1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $c3_binop_2 : \iota$ be given. Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.k4_xboole_0 (k2_xboole_0 X0 X1) X2 = k2_xboole_0 (k4_xboole_0 X0 X2) (k4_xboole_0 X1 X2) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\neg (\neg r1_xxreal_0 X1 X0) \wedge (v1_xboole_0 (k3_xxreal_1 X0 X1)))) \quad (3)$$

Assume the following.

$$\forall X0.k2_xboole_0 X0 k1_xboole_0 = X0 \quad (4)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (k6_subset_1 (k1_xxreal_1 X2 X1) (k1_xxreal_1 X0 X1) = k2_xxreal_1 X2 X0)))) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (k2_xxreal_1 X0 X0 = k1_xboole_0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (k6_subset_1 (k1_xxreal_1 X0 X2) (k1_xxreal_1 X0 X1) = k3_xxreal_1 X1 X2)))) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\ & (k2_xboole_0 (k1_xxreal_1 X0 X1) (k3_xxreal_1 X1 X2) = k1_xxreal_1 \\ & X0 X2)))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ & r1_xxreal_0 X0 X1) \Rightarrow (k6_subset_1 (k1_xxreal_1 X0 X1) (k1_tarski \\ & X1) = k2_xxreal_1 X0 X1))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ & r1_xxreal_0 X0 X1) \Rightarrow (k6_subset_1 (k1_xxreal_1 X0 X1) (k1_tarski \\ & X0) = k3_xxreal_1 X0 X1))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ & r1_xxreal_0 X0 X1) \Rightarrow (k1_xxreal_1 X0 X1 = k2_xboole_0 (k1_tarski \\ & X0) (k3_xxreal_1 X0 X1)))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (12)$$

Assume the following.

$$(v1_xboole_0 (k16_complex1 k6_numbers)) \wedge (v1_xreal_0 (k16_complex1 k6_numbers)) \quad (13)$$

Assume the following.

$$c3_binop_2 = k6_numbers \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (15)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\ & (k6_subset_1 (k1_xxreal_1 X0 X2) (k1_tarski X1) = k2_xboole_0 (\\ & k2_xxreal_1 X0 X1) (k3_xxreal_1 X1 X2)))))) \end{aligned}$$