

t129_xxreal_1 (TMQvXAJhZBEWgtUARbbn- nrutvMkpJpSgq)

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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 $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. (v1_xxreal_0 X2) \Rightarrow (\neg (X0 \in k1_xxreal_1 X1 X2) \wedge ((\neg X0 \in k2_xxreal_1 X1 X2) \wedge (X0 \neq X2)))) \quad (1)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. (v1_xxreal_0 X2) \Rightarrow ((X0 \in k1_xxreal_1 X1 X2) \Leftrightarrow ((r1_xxreal_0 X1 X0) \wedge (r1_xxreal_0 X0 X2)))))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. (v1_xxreal_0 X2) \Rightarrow ((X0 \in k2_xxreal_1 X1 X2) \Rightarrow ((X0 \in k1_xxreal_1 X1 X2) \wedge (X0 \neq X2)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (7)$$

Theorem 1

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (k1_xxreal_1 X0 X1 = k2_xboole_0 (k2_xxreal_1 X0 X1) (k1_tarski X1))))$$