

l36_interval1 (TMH-
PGp4XWBvyGHgn6FR9UhJLAZ6BFjrSNeR)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_interval1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k7_interval1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_setfam_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (r1_tarski (k1_setfam_1 X1) X0) \quad (1)$$

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.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_interval1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))))) \Rightarrow (k7_interval1 X0 X1 = k1_setfam_1 X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_interval1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))))) \Rightarrow (m2_subset_1 (k7_interval1 X0 X1) (k1_zfmisc_1 X0) X1) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \Rightarrow ((m1_subset_1 X1 X0) \Leftrightarrow (X1 \in X0))) \wedge ((v1_xboole_0 X0) \Rightarrow ((m1_subset_1 X1 X0) \Leftrightarrow (v1_xboole_0 X1))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (6)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_interval X1 X0) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2. \\ & (X2 \in X1) \Rightarrow ((X2 = k7_interval X0 X1) \Leftrightarrow (\forall X3. (X3 \in X1) \Rightarrow (r1_tarski \\ & X2 X3)))) \end{aligned}$$