

t15_interval1

(TMTcg2mjgZb7sWnJs5pydwMxmUE1Vjwm8Rd)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_interval1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_interval1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_interval1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_interval1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_interval1 X1 X0))) \Rightarrow (m1_subset_1 (k5_interval1 X0 X1) (k1_zfmisc_1 \\ & X0)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\ & (m1_interval1 X1 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & X0)) \Rightarrow ((X2 = k6_interval1 X0 X1) \Leftrightarrow (\exists X3. (m1_subset_1 X3 (k1_zfmisc_1 \\ & X0)) \wedge (X1 = k2_interval1 X0 X3 X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\ & (m1_interval1 X1 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & X0)) \Rightarrow ((X2 = k5_interval1 X0 X1) \Leftrightarrow (\exists X3. (m1_subset_1 X3 (k1_zfmisc_1 \\ & X0)) \wedge (X1 = k2_interval1 X0 X2 X3)))))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\ & (m1_interval1 X1 X0))) \Rightarrow (X1 = k2_interval1 X0 (k5_interval1 X0 X1) (k6_interval1 \\ & X0 X1)) \end{aligned}$$