

t43_interval
(TMR5HVfSXHMJg8V9DmcpvdHYQZJ8NWjYt6y)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k2_interval : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_subset_1 : \iota \Rightarrow \iota$ be given. Let $m1_interval : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_interval : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow ((r1_tarski \\ X1 X2) \Rightarrow ((\neg v1_xboole_0 (k2_interval X0 X1 X2)) \wedge ((v1_interval (\\ k2_interval X0 X1 X2) X0) \wedge (m1_subset_1 (k2_interval X0 X1 X2) (k1_zfmisc_1 \\ (k1_zfmisc_1 X0)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 X0 \tag{2}$$

Assume the following.

$$\forall X0. m1_subset_1 (k2_subset_1 X0) (k1_zfmisc_1 X0) \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 \\ X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (m1_interval (k2_interval \\ X0 X1 X2) X0) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0. k2_subset_1 X0 = X0 \tag{5}$$

Theorem 1

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow ((\neg v1_xboole_0 (k2_interval X0 \\ (k2_subset_1 X0) (k2_subset_1 X0))) \wedge (m1_interval (k2_interval \\ X0 (k2_subset_1 X0) (k2_subset_1 X0)) X0)) \end{aligned}$$