

t44\_interval1  
(TMdQ9o3NNndoYqrxjahJszscUbRPybaz4HF)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k2\_interval1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_subset\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_interval1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_interval1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. r1\_tarski\ k1\_xboole\_0\ X0 \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1. (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \Rightarrow (\forall X2. (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0)) \Rightarrow ((r1\_tarski\ X1\ X2) \Rightarrow ((\neg v1\_xboole\_0\ (k2\_interval1\ X0\ X1\ X2)) \wedge ((v1\_interval1\ (k2\_interval1\ X0\ X1\ X2)\ X0) \wedge (m1\_subset\_1\ (k2\_interval1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \Rightarrow (m1\_interval1\ (k2\_interval1\ X0\ X1\ X2)\ X0) \tag{3}$$

Assume the following.

$$\forall X0. m1\_subset\_1\ (k1\_subset\_1\ X0)\ (k1\_zfmisc\_1\ X0) \tag{4}$$

Assume the following.

$$\forall X0. k1\_subset\_1\ X0 = k1\_xboole\_0 \tag{5}$$

**Theorem 1**

$$\forall X0. (\neg v1\_xboole\_0\ X0) \Rightarrow ((\neg v1\_xboole\_0\ (k2\_interval1\ X0\ (k1\_subset\_1\ X0)\ (k1\_subset\_1\ X0))) \wedge (m1\_interval1\ (k2\_interval1\ X0\ (k1\_subset\_1\ X0)\ (k1\_subset\_1\ X0))\ X0))$$