

t133\_seq\_4 (TMK-  
WQHTqF5jmUm7W7UUeTfJbfmY2uLu9Spo)

October 27, 2020

Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v4\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $k4\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $v3\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $k5\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (m2\_subset\_1 X0 k1\_numbers k5\_numbers) \Rightarrow (\forall X1. \\ ((v1\_finset\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 k1\_numbers))) \Rightarrow \\ ((k5\_card\_1 X1 = X0) \Rightarrow ((X1 = k1\_xboole\_0) \vee ((v4\_xxreal\_2 X1) \wedge (( \\ k4\_seq\_4 X1 \in X1) \wedge ((v3\_xxreal\_2 X1) \wedge (k5\_seq\_4 X1 \in X1))))))) \end{aligned} \quad (3)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (4)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (5)$$

Assume the following.

$$\forall X0. (v1\_finset\_1 X0) \Rightarrow (m1\_subset\_1 (k5\_card\_1 X0) k4\_ordinal1) \quad (6)$$

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**

$$\forall X0.((v1\_finset\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers))) \Rightarrow \\ ((X0 \neq k1\_xboole\_0) \Rightarrow ((v4\_xxreal\_2 X0) \wedge ((k4\_seq\_4 X0 \in X0) \wedge ((v3\_xxreal\_2 \\ X0) \wedge (k5\_seq\_4 X0 \in X0))))))$$