

t1\_latsum\_1  
(TMcBNjCRJR8zTd5PkYh7yPGnqpsLqpTeJhZ)

October 27, 2020

Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (X2 = k4\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (X2 = k2\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \end{aligned} \quad (3)$$

**Theorem 1**

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. \neg (X0 \in k2\_xboole\_0 \\ X2 X3) \wedge ((X1 \in k2\_xboole\_0 X2 X3) \wedge ((\neg (X0 \in k6\_subset\_1 X2 X3) \wedge (X1 \in \\ k6\_subset\_1 X2 X3)) \wedge ((\neg (X0 \in X3) \wedge (X1 \in X3)) \wedge ((\neg (X0 \in k6\_subset\_1 \\ X2 X3) \wedge (X1 \in X3)) \wedge (\neg (X0 \in X3) \wedge (X1 \in k6\_subset\_1 X2 X3)))))) \end{aligned}$$