

t1\_partit1  
(TMLw8ijwKFkuwG5WowLnjwMZbtHYjm1wNXD)

October 27, 2020

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

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_eqrel\_1 X1 X0) \Rightarrow (\forall X2.\neg(X2 \in X1) \wedge (\forall X3.(m1\_subset\_1 X3 X0) \Rightarrow (\neg X3 \in X2)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_eqrel\_1 X1 X0) \Rightarrow (\forall X2.\forall X3.\forall X4.((X2 \in X3) \wedge ((X3 \in X1) \wedge ((X2 \in X4) \wedge (X4 \in X1)))) \Rightarrow (X3 = X4)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

**Theorem 1**

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_eqrel\_1 X1 X0) \Rightarrow (\forall X2.\forall X3.((X2 \in X1) \wedge ((X3 \in X1) \wedge (r1\_tarski X2 X3))) \Rightarrow (X2 = X3)))$$