

t7\_partit1 (TM-  
bjB513YBWecPDWDRuHdPp1PGUVp3Svpzf)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_partit1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 X0 \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow (k5\_setfam\_1 X0 X1 = k3\_tarski X1) \tag{2}$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (m1\_eqrel\_1 X1 X0) \Rightarrow (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow ((m1\_eqrel\_1 X1 X0) \Leftrightarrow ((k5\_setfam\_1 X0 X1 = X0) \wedge (\forall X2. \\ & (m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow ((X2 \in X1) \Rightarrow ((X2 \neq k1\_xboole\_0) \wedge \\ & (\forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 X0)) \Rightarrow (\neg(X3 \in X1) \wedge ((X2 \neq X3) \wedge (\neg r1\_xboole\_0 X2 X3)))))))))) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_eqrel\_1 X1 X0) \Rightarrow \\ & (\forall X2. (r1\_partit1 X0 X1 X2) \Leftrightarrow (\exists X3. (r1\_tarski X3 X1) \wedge \\ & ((X3 \neq k1\_xboole\_0) \wedge (X2 = k3\_tarski X3)))))) \end{aligned} \tag{6}$$

Assume the following.

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_eqrel\_1 X1 X0) \Rightarrow (\neg v1\_xboole\_0 X1)) \tag{7}$$

**Theorem 1**

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_eqrel\_1 X1 X0) \Rightarrow (r1\_partit1 X0 X1 X0))$$