

# t19\_partit\_2 (TMMpfR- nuwQZsNScz4MCgYztpmjDvzEMzxpe)

October 27, 2020

Let  $k8\_funct\_5 : \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  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  $np\_1 : \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$np\_1 = k1\_tarski k1\_xboole\_0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski (k1\_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k2\_zfmisc\_1 (k1\_tarski X0) (k1\_tarski X1) = k1\_tarski (k4\_tarski X0 X1) \quad (6)$$

Assume the following.

$$\neg v1\_xboole\_0 np\_1 \quad (7)$$

Assume the following.

$$\forall X0. \neg v1\_xboole\_0 (k1\_tarski X0) \quad (8)$$

Assume the following.

$$\forall X0. \exists X1. m1\_subset\_1 X1 X0 \quad (9)$$

Assume the following.

$$(v1\_funct\_1 k8\_funct\_5) \wedge ((v1\_funct\_2 k8\_funct\_5 np\_1 np\_1) \wedge (m1\_subset\_1 k8\_funct\_5 (k1\_zfmisc\_1 (k2\_zfmisc\_1 np\_1 np\_1)))) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (\neg v1\_xboole\_0 X1)) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow \\ & (((v1\_funct\_1 X2) \wedge (v1\_funct\_2 X2 X0 X1)) \Rightarrow ((v1\_funct\_1 X2) \wedge ((\neg v1\_xboole\_0 X2) \wedge (v1\_funct\_2 X2 X0 X1))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (v1\_funct\_1 X0) \quad (14)$$

**Theorem 1**  $k8\_funct\_5 = k1\_tarski (k4\_tarski k1\_xboole\_0 k1\_xboole\_0)$ .