

t10\_ens\_1 (TMG-  
kiCUq6GRLzrMA8U6sDnRYSjN9qhrT6vr)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_ens\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ens\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_ens\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k2\_ens\_1 \\ X0)) \Rightarrow ((\neg (k4\_ens\_1 X0 X1 = k1\_xboole\_0) \wedge (k3\_ens\_1 X0 X1 \neq k1\_xboole\_0)) \wedge \\ ((v1\_funct\_1 (k2\_xtuple\_0 X1)) \wedge (v1\_funct\_2 (k2\_xtuple\_0 X1) \\ (k3\_ens\_1 X0 X1) (k4\_ens\_1 X0 X1)) \wedge (m1\_subset\_1 (k2\_xtuple\_0 X1) \\ (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k3\_ens\_1 X0 X1) (k4\_ens\_1 X0 X1)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k2\_xtuple\_0 (k4\_tarski X0 X1) = X1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k1\_xtuple\_0 (k4\_tarski X0 X1) = X0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k4\_tarski X0 X1 = k2\_tarski (k2\_tarski X0 X1) (k1\_tarski X0) \quad (5)$$

Assume the following.

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k2\_ens\_1 X0)) \Rightarrow (k4\_ens\_1 X0 X1 = k2\_xtuple\_0 (k1\_xtuple\_0 X1))) \quad (6)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k2\_ens\_1 X0)) \Rightarrow (k3\_ens\_1 X0 X1 = k1\_xtuple\_0 (k1\_xtuple\_0 X1))) \quad (7)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (\forall X2.\forall X3.(k4\_tarski (k4\_tarski \\ & X2 X3) X1 \in k2\_ens\_1 X0) \Rightarrow (((X3 = k1\_xboole\_0) \Rightarrow (X2 = k1\_xboole\_0)) \wedge \\ & ((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 X2 X3) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X2 X3)))))))))) \end{aligned}$$