t4_ens_1 (TMcUaKSWfPByKpyyGjCniaN-HqwhUBBcPWrc)

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

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\neg v1\_xboole\_0\ (k2\_ens\_1\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (k2\_ens\_1\ X0 = ReplSep3\ (toset\ (\lambda X1 : \iota.m1\_subset\_1\ X1\ X0))\ (\lambda X1 : \iota.toset\ (\lambda X2 : \iota.m1\_subset\_1\ X2\ X0))\ (\lambda X1 : \iota.\lambda X2 : \iota.toset\ (\lambda X3 : \iota.m1\_subset\_1\ X3\ (k1\_ens\_1\ X0)))\ (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.((X2 = k1\_xboole\_0) \Rightarrow (X1 = k1\_xboole\_0)) \wedge ((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ X1\ X2) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ X2))))))\ (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.k1\_domain\_1\ (k2\_zfmisc\_1\ X0\ X0)\ (k1\_ens\_1\ X0)\ (k1\_domain\_1\ X0\ X0\ X1\ X2)\ X3)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \Rightarrow ((m1\_subset\_1\ X1\ X0) \Leftrightarrow (X1 \in X0))) \wedge ((v1\_xboole\_0\ X0) \Rightarrow ((m1\_subset\_1\ X1\ X0) \Leftrightarrow (v1\_xboole\_0\ X1))) \tag{3}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k2\_ens\_1\ X0)) \Rightarrow (\exists X2.(m1\_subset\_1\ X2\ (k1\_ens\_1\ X0)) \wedge (\exists X3.(m1\_subset\_1\ X3\ X0) \wedge (\exists X4.(m1\_subset\_1\ X4\ X0) \wedge ((X1 = k1\_domain\_1\ (k2\_zfmisc\_1\ X0\ X0)\ (k1\_ens\_1\ X0)\ (k1\_domain\_1\ X0\ X0\ X3\ X4)\ X2) \wedge (((X4 = k1\_xboole\_0) \Rightarrow (X3 = k1\_xboole\_0)) \wedge ((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X3\ X4) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X3\ X4))))))))))$$