t4_dynkin (TMN2uGEGL6KUenVSCfLKCN3vLBwPsLjVzAS)

October 27, 2020

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

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{2}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((X0 \neq k1\_xboole\_0) \Rightarrow ((X1 = k1\_setfam\_1\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\forall X3.(X3 \in X0) \Rightarrow (X2 \in X3))))) \wedge ((X0 = k1\_xboole\_0) \Rightarrow ((X1 = k1\_setfam\_1\ X0) \Leftrightarrow (X1 = k1\_xboole\_0))) \tag{5}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(r1\_tarski\ X1\ (k1\_setfam\_1\ X0)) \Leftrightarrow (\forall X2.(m1\_subset\_1\ X2\ X0) \Rightarrow (r1\_tarski\ X1\ X2)))$$