

t21_setfam_1
(TMW8ne3ZiXWzeDXkU3fdGQpgbz8Hn2nW5rp)

October 27, 2020

Let $r1_setfam_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. r1_tarski (k3_xboole_0 X0 X1) X0 \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (X2 = k3_setfam_1 X0 X1) \Leftrightarrow (\forall X3. \\ & (X3 \in X2) \Leftrightarrow (\exists X4. \exists X5. (X4 \in X0) \wedge ((X5 \in X1) \wedge (X3 = k3_xboole_0 \\ & \quad X4 X5)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (r1_setfam_1 X0 X1) \Leftrightarrow (\forall X2. \neg (X2 \in X0) \wedge \\ & (\forall X3. \neg (X3 \in X1) \wedge (r1_tarski X2 X3))) \end{aligned} \quad (3)$$

Theorem 1 $\forall X0. r1_setfam_1 (k3_setfam_1 X0 X0) X0.$