# t68_prob_3 (TM-JAT19g2ESZTfSU5GKAb2FRmMeDiVojkBk)

October 27, 2020

Let $v2\_prob\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_setfam\_1 : \iota \Rightarrow \iota$ be given. Let $v3\_prob\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_kurato\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_prob\_1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_prob\_1 : \iota \Rightarrow o$ 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.

$$\forall X0.k9\_setfam\_1\ X0 = k1\_zfmisc\_1\ X0 \tag{2}$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0\ (k1\_zfmisc\_1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.m1\_subset\_1\ (k9\_setfam\_1\ X0)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (k9\_setfam\_1\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0)))))) \Rightarrow (m1\_subset\_1\ (k3\_prob\_1\ X0\ X1)\ (k1\_zfmisc\_1\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (k9\_setfam\_1\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0)))))) \Rightarrow (m1\_subset\_1\ (k1\_kurato\_0\ X0\ X1)\ (k1\_zfmisc\_1\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow((v2\_prob\_3\ X1\ X0)\Leftrightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow(((v3\_prob\_1\ X2)\wedge(r1\_tarski\ (k2\_relset\_1\ (k9\_setfam\_1\ X0)\ X2)\ X1))\Rightarrow(k1\_kurato\_0\ X0\ X2\in X1))))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow((v3\_prob\_3\ X1\ X0)\Leftrightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ k5\_numbers\ (k9\_setfam\_1\ X0))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k9\_setfam\_1\ X0))))))\Rightarrow(((v2\_prob\_1\ X2)\wedge(r1\_tarski\ (k2\_relset\_1\ (k9\_setfam\_1\ X0)\ X2)\ X1))\Rightarrow(k3\_prob\_1\ X0\ X2\in X1))))) \tag{8}$$

**Theorem 1**

$$\forall X0.(v2\_prob\_3\ (k9\_setfam\_1\ X0)\ X0)\wedge(v3\_prob\_3\ (k9\_setfam\_1\ X0)\ X0)$$