t37_prob_1 (TMW8mFZPgsGct7MFN7EDAvHsTSorHZTqUGM)

October 27, 2020

Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $m1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.k4\_xboole\_0\ X0\ (k3\_xboole\_0\ X0\ X1) = k4\_xboole\_0\ X0\ X1 \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.(m1\_prob\_1\ X2\ X0\ X1) \Rightarrow (\forall X3.(m1\_prob\_1\ X3\ X0\ X1) \Rightarrow (\forall X4.(m2\_prob\_1\ X4\ X0\ X1) \Rightarrow (k1\_seq\_1\ X4\ (k6\_prob\_1\ X0\ X1\ X2\ X3) = k7\_real\_1\ (k1\_seq\_1\ X4\ X2)\ (k1\_seq\_1\ X4\ (k7\_prob\_1\ X0\ X1\ X3\ X2)))))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.(m1\_prob\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \wedge ((m1\_subset\_1\ X2\ X1) \wedge (m1\_subset\_1\ X3\ X1))) \Rightarrow (k7\_prob\_1\ X0\ X1\ X2\ X3 = k4\_xboole\_0\ X2\ X3) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\wedge((m1\_subset\_1\ X2\ X1)\wedge(m1\_subset\_1\ X3\ X1)))\Rightarrow(k5\_prob\_1\ X0\ X1\ X2\ X3 = k3\_xboole\_0\ X2\ X3) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\wedge((m1\_subset\_1\ X2\ X1)\wedge(m1\_subset\_1\ X3\ X1)))\Rightarrow(m1\_prob\_1\ (k5\_prob\_1\ X0\ X1\ X2\ X3)\ X0\ X1) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0\ X0\ X1 = k3\_xboole\_0\ X1\ X0 \tag{7}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow(\forall X2.(m1\_prob\_1\ X2\ X0\ X1)\Rightarrow(\forall X3.(m1\_prob\_1\ X3\ X0\ X1)\Rightarrow(\forall X4.(m2\_prob\_1\ X4\ X0\ X1)\Rightarrow(k1\_seq\_1\ X4\ (k6\_prob\_1\ X0\ X1\ X2\ X3) = k7\_real\_1\ (k1\_seq\_1\ X4\ X2)\ (k1\_seq\_1\ X4\ (k7\_prob\_1\ X0\ X1\ X3\ (k5\_prob\_1\ X0\ X1\ X2\ X3)))))))))$$