t77_bvfunc14 (TMYz9wFmgKtpz7BjX4E2isC8Zg1ZFGfh2xs)

October 27, 2020

Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k6\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ \forall X6.\forall X7.\forall X8.k7\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7\ X8 = k2\_xboole\_0\ (k1\_tarski\ X0)\ (k6\_enumset1\ X1\ X2\ X3\ X4\ X5\ X6\ X7\ X8) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ \forall X6.\forall X7.\forall X8.((v1\_relat\_1\ X8)\wedge(v1\_funct\_1\ X8))\Rightarrow(\forall X9.\forall X10.\forall X11.\forall X12.\forall X13.\ \forall X14.\forall X15.\forall X16.(X8 = k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k16\_funcop\_1\ X1\ X10)\ (k16\_funcop\_1\ X2\ X11))\ (k16\_funcop\_1\ X3\ X12))\ (k16\_funcop\_1\ X4\ X13))\ (k16\_funcop\_1\ X5\ X14))\ (k16\_funcop\_1\ X6\ X15))\ (k16\_funcop\_1\ X7\ X16))\ (k16\_funcop\_1\ X0\ X9))\Rightarrow(k9\_xtuple\_0\ X8 = k6\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ \forall X6.\forall X7.k6\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7 = k2\_xboole\_0\ (k5\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6)\ (k1\_tarski\ X7) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\forall X6.\forall X7.k6\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7 = k2\_xboole\_0\ (k1\_tarski\ X0)\ (k5\_enumset1\ X1\ X2\ X3\ X4\ X5\ X6\ X7) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(k9\_xtuple\_0\ (k2\_funcop\_1\ X0\ X1) = X0) \wedge (r1\_tarski\ (k10\_xtuple\_0\ (k2\_funcop\_1\ X0\ X1))\ (k1\_tarski\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.k7\_funcop\_1\ X0\ X1 = k2\_funcop\_1\ X0\ X1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ (k16\_funcop\_1\ X0\ X1)) \wedge (v1\_funct\_1\ (k16\_funcop\_1\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_funct\_1\ (k7\_funcop\_1\ X0\ X1)) \wedge ((v1\_funct\_2\ (k7\_funcop\_1\ X0\ X1)\ X0\ (k1\_tarski\ X1)) \wedge (m1\_subset\_1\ (k7\_funcop\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ (k1\_tarski\ X1))))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \wedge ((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1))) \Rightarrow ((v1\_relat\_1\ (k1\_funct\_4\ X0\ X1)) \wedge (v1\_funct\_1\ (k1\_funct\_4\ X0\ X1))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.k16\_funcop\_1\ X0\ X1 = k7\_funcop\_1\ (k1\_tarski\ X0)\ X1 \tag{10}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \Rightarrow ((X2 = k1\_funct\_4\ X0\ X1) \Leftrightarrow ((k9\_xtuple\_0\ X2 = k2\_xboole\_0\ (k9\_xtuple\_0\ X0)\ (k9\_xtuple\_0\ X1)) \wedge (\forall X3.(X3 \in k2\_xboole\_0\ (k9\_xtuple\_0\ X0)\ (k9\_xtuple\_0\ X1)) \Rightarrow (((X3 \in k9\_xtuple\_0\ X1) \Rightarrow (k1\_funct\_1\ X2\ X3 = k1\_funct\_1\ X1\ X3)) \wedge ((\neg X3 \in k9\_xtuple\_0\ X1) \Rightarrow (k1\_funct\_1\ X2\ X3 = k1\_funct\_1\ X0\ X3)))))))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0\ X0\ X1 = k2\_xboole\_0\ X1\ X0 \tag{12}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\forall X6.\forall X7.\forall X8.\forall X9.((v1\_relat\_1\ X9)\wedge(v1\_funct\_1\ X9))\Rightarrow(\forall X10.\forall X11.\forall X12.\forall X13.\forall X14.\forall X15.\forall X16.\forall X17.\forall X18.(X9 = k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k1\_funct\_4\ (k16\_funcop\_1\ X1\ X11)\ (k16\_funcop\_1\ X2\ X12))\ (k16\_funcop\_1\ X3\ X13))\ (k16\_funcop\_1\ X4\ X14))\ (k16\_funcop\_1\ X5\ X15))\ (k16\_funcop\_1\ X6\ X16))\ (k16\_funcop\_1\ X7\ X17))\ (k16\_funcop\_1\ X8\ X18))\ (k16\_funcop\_1\ X0\ X10))\Rightarrow(k9\_xtuple\_0\ X9 = k7\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7\ X8))$$