t20_cohsp_1 (TMJxgFK-SrsQWws5Vbm2rSdWVZbYPpC3VJuD)

October 27, 2020

Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v8\_cohsp\_1 : \iota \Rightarrow o$ be given. Let $v1\_classes1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_tarski : \iota \Rightarrow \iota$ be given. Let $k7\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_finsub\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_cohsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_finsub\_1 : \iota \Rightarrow o$ be given. Let $v1\_cohsp\_1 : \iota \Rightarrow o$ be given. Let $v2\_cohsp\_1 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v5\_cohsp\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\neg(X0 \in X1) \wedge (v1\_xboole\_0\ X1) \tag{1}$$

Assume the following.

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

Assume the following.

$$\forall X0.k3\_tarski\ (k5\_finsub\_1\ X0) = X0 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0\ X0) \wedge (v1\_classes1\ X0)) \wedge (m1\_subset\_1\ X1\ X0)) \Rightarrow (k3\_cohsp\_1\ X0\ X1 = k5\_finsub\_1\ X1) \tag{4}$$

Assume the following.

$$\forall X0.(v4\_finsub\_1\ (k5\_finsub\_1\ X0)) \wedge ((v1\_cohsp\_1\ (k5\_finsub\_1\ X0)) \wedge (v2\_cohsp\_1\ (k5\_finsub\_1\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0\ X0) \wedge (v1\_classes1\ X0)) \wedge (m1\_subset\_1\ X1\ X0)) \Rightarrow ((\neg v1\_xboole\_0\ (k3\_cohsp\_1\ X0\ X1)) \wedge ((v4\_finsub\_1\ (k3\_cohsp\_1\ X0\ X1)) \wedge (m1\_subset\_1\ (k3\_cohsp\_1\ X0\ X1)\ (k1\_zfmisc\_1\ X0)))) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow((v5\_cohsp\_1\ X0)\Leftrightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k9\_xtuple\_0\ X0)))\Rightarrow (((v1\_cohsp\_1\ X1)\wedge(k3\_tarski\ X1\in k9\_xtuple\_0\ X0))\Rightarrow(k1\_funct\_1\ X0\ (k3\_tarski\ X1) = k3\_tarski\ (k7\_relat\_1\ X0\ X1))))) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v8\_cohsp\_1\ X0)))\Rightarrow ((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v5\_cohsp\_1\ X0))) \tag{8}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v8\_cohsp\_1\ X0)))\Rightarrow ((v1\_classes1\ (k9\_xtuple\_0\ X0))\Rightarrow(\forall X1.(X1\in k9\_xtuple\_0\ X0)\Rightarrow(k1\_funct\_1\ X0\ X1 = k3\_tarski\ (k7\_relat\_1\ X0\ (k5\_finsub\_1\ X1)))))$$