t11_rewrite2 (TM-NYPT2MV2Y7DPGqNiWDsDuxT5xaBQv1D6h)

October 27, 2020

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 $k8\_afinsq\_1 : \iota \Rightarrow \iota$ be given. Let $r2\_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v5\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $k1\_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_catalan2 : \iota \Rightarrow \iota$ be given. Let $v4\_funct\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v5\_ordinal1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finset\_1\ X0)))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v5\_ordinal1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finset\_1\ X1)))) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge ((v5\_ordinal1\ X2) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_finset\_1\ X2)))) \Rightarrow (((k1\_ordinal4\ X0\ X1 = k1\_ordinal4\ X2\ X1) \vee (k1\_ordinal4\ X1\ X0 = k1\_ordinal4\ X1\ X2)) \Rightarrow (X0 = X2)))) \tag{1}$$

Assume the following.

$$\forall X0.k3\_catalan2\ X0 = k8\_afinsq\_1\ X0 \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k3\_catalan2\ X0)) \wedge (m1\_subset\_1\ X2\ (k3\_catalan2\ X0))) \Rightarrow (k1\_flang\_1\ X0\ X1\ X2 = k1\_ordinal4\ X1\ X2) \tag{3}$$

Assume the following.

$$\forall X0.v4\_funct\_1\ (k8\_afinsq\_1\ X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k3\_catalan2\ X0)) \wedge (m1\_subset\_1\ X2\ (k3\_catalan2\ X0))) \Rightarrow (m1\_subset\_1\ (k1\_flang\_1\ X0\ X1\ X2)\ (k3\_catalan2\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k8\_afinsq\_1\ X0)\ (k8\_afinsq\_1\ X0))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k8\_afinsq\_1\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k8\_afinsq\_1\ X0))\Rightarrow((r2\_rewrite2\ X0\ X1\ X2\ X3)\Leftrightarrow(\exists X4.(m1\_subset\_1\ X4\ (k8\_afinsq\_1\ X0))\wedge(\exists X5.(m1\_subset\_1\ X5\ (k8\_afinsq\_1\ X0))\wedge(\exists X6.(m1\_subset\_1\ X6\ (k8\_afinsq\_1\ X0))\wedge(\exists X7.(m1\_subset\_1\ X7\ (k8\_afinsq\_1\ X0))\wedge((X2 = k1\_flang\_1\ X0\ (k1\_flang\_1\ X0\ X4\ X6)\ X5)\wedge((X3 = k1\_flang\_1\ X0\ (k1\_flang\_1\ X0\ X4\ X7)\ X5)\wedge(r1\_rewrite2\ X0\ X1\ X6\ X7)))))))))) \tag{6}$$

Assume the following.

$$\forall X0.(v4\_funct\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k8\_afinsq\_1\ X0))\Rightarrow((v5\_ordinal1\ X1)\wedge(v1\_finset\_1\ X1)) \tag{8}$$

Theorem 1

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k8\_afinsq\_1\ X0)\ (k8\_afinsq\_1\ X0))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k8\_afinsq\_1\ X0))\Rightarrow(\neg(r2\_rewrite2\ X0\ X1\ X2\ X2)\wedge(\forall X3.(m1\_subset\_1\ X3\ (k8\_afinsq\_1\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (k8\_afinsq\_1\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (k8\_afinsq\_1\ X0))\Rightarrow(\neg(X2 = k1\_flang\_1\ X0\ (k1\_flang\_1\ X0\ X3\ X5)\ X4)\wedge(r1\_rewrite2\ X0\ X1\ X5\ X5)))))))$$