t13_mycielsk (TMcGU-FyZFVPFdiy3aPfST1tJFwgDHAXeYtW)

October 27, 2020

Let $v8\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_mycielsk : \iota \Rightarrow \iota$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $m1\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v1\_mycielsk : \iota \Rightarrow o$ be given. Let $v6\_dilworth : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_eqrel\_1\ X1\ X0) \Rightarrow (r1\_ordinal1\ (k1\_card\_1\ X1)\ (k1\_card\_1\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Leftrightarrow (r1\_ordinal1\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (k5\_card\_1\ X0 = k1\_card\_1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.((v8\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (v1\_finset\_1\ (u1\_struct\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (l1\_struct\_0\ X0) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (m1\_subset\_1\ (k5\_card\_1\ X0)\ k4\_ordinal1) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_mycielsk\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (v7\_ordinal1\ (k2\_mycielsk\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_mycielsk\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.\ (v7\_ordinal1\ X1)\Rightarrow((X1 = k2\_mycielsk\ X0)\Leftrightarrow((\exists X2.((v1\_finset\_1\ X2)\wedge((v6\_dilworth\ X2\ X0)\wedge(m1\_eqrel\_1\ X2\ (u1\_struct\_0\ X0))))\wedge (k5\_card\_1\ X2 = X1))\wedge(\forall X2.((v1\_finset\_1\ X2)\wedge((v6\_dilworth\ X2\ X0)\wedge(m1\_eqrel\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow(r1\_xxreal\_0\ X1\ (k5\_card\_1\ X2)))))) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v8\_struct\_0\ X0)\Rightarrow(v1\_mycielsk\ X0)) \tag{10}$$

Theorem 1

$$\forall X0.((v8\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(r1\_xxreal\_0\ (k2\_mycielsk\ X0)\ (k5\_card\_1\ (u1\_struct\_0\ X0)))$$