t35_uniroots (TMEg1QMLSoy3nsEMpmidfPaNnyWRqwC7J84)

October 27, 2020

Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k2\_uniroots : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_uniroots : \iota \Rightarrow \iota$ be given. Let $k1\_complfld : \iota$ be given. Let $r1\_nat\_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k1\_uniroots\ k1\_complfld))) \Rightarrow ((r1\_nat\_d\ (k6\_group\_1\ (k1\_uniroots\ k1\_complfld)\ X1)\ X0) \Leftrightarrow (X1 \in k2\_uniroots\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)) \Rightarrow (r1\_tarski\ (k2\_uniroots\ X0)\ (u1\_struct\_0\ (k1\_uniroots\ k1\_complfld))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(\forall X2.(X2 \in X0) \Leftrightarrow (X2 \in X1)) \Rightarrow (X0 = X1) \tag{5}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)) \Rightarrow (k2\_uniroots\ X0 = ReplSep\ (toset\ (\lambda X1 : \iota.m1\_subset\_1\ X1\ (u1\_struct\_0\ (k1\_uniroots\ k1\_complfld))))\ (\lambda X1 : \iota.r1\_nat\_d\ (k6\_group\_1\ (k1\_uniroots\ k1\_complfld)\ X1)\ X0)\ (\lambda X1 : \iota.X1))$$