t36_cfdiff_1 (TMGjihfaGQ4FFyf62MQGxPLDFpd3BjrX81y)

October 27, 2020

Let $v1\_funct\_1 : \iota \Rightarrow o$ 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 $k2\_numbers : \iota$ be given. Let $v6\_cfdiff\_1 : \iota \Rightarrow o$ be given. Let $r2\_cfdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_cfdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ k2\_numbers)))) \Rightarrow ((r2\_cfdiff\_1\ X1\ X0) \Rightarrow (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k2\_numbers))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X1\ X2)) \Rightarrow (r1\_tarski\ X0\ X2) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k2\_numbers)) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ k2\_numbers)))) \Rightarrow ((r2\_cfdiff\_1\ X1\ X0) \Rightarrow (v6\_cfdiff\_1\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ k2\_numbers)))) \Rightarrow (\forall X1.((v6\_cfdiff\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ k2\_numbers))) \Rightarrow ((r2\_cfdiff\_1\ X0\ X1) \Leftrightarrow ((r1\_tarski\ X1\ (k1\_relset\_1\ k2\_numbers\ X0)) \wedge (\forall X2.(m1\_subset\_1\ X2\ k2\_numbers) \Rightarrow ((X2 \in X1) \Rightarrow (r1\_cfdiff\_1\ X0\ X2))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{5}$$

Theorem 1

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ k2\_numbers))))\Rightarrow(\forall X2.((v6\_cfdiff\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ k2\_numbers)))\Rightarrow(((r2\_cfdiff\_1\ X1\ X0)\wedge(r1\_tarski\ X2\ X0))\Rightarrow(r2\_cfdiff\_1\ X1\ X2)))$$