t42_rfunct_2 (TMb-HeMq8NwSyxuvBJ3Ut9LCWxB6Yy775Cis)

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 $k1\_numbers : \iota$ be given. Let $v7\_valued\_0 : \iota \Rightarrow o$ be given. Let $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_funct\_1 : \iota \Rightarrow o$ be given. Let $k3\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5\_valued\_0 : \iota \Rightarrow o$ be given. Let $v6\_valued\_0 : \iota \Rightarrow o$ be given. Let $v8\_valued\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \Rightarrow ((((v5\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X2\ X0)) \wedge (v5\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X3\ X1))) \Rightarrow (v5\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ (k3\_valued\_1\ k1\_numbers\ k1\_numbers\ k1\_numbers\ X2\ X3)\ (k3\_xboole\_0\ X0\ X1)))) \wedge ((((v6\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X2\ X0)) \wedge (v6\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X3\ X1))) \Rightarrow (v6\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ (k3\_valued\_1\ k1\_numbers\ k1\_numbers\ k1\_numbers\ X2\ X3)\ (k3\_xboole\_0\ X0\ X1)))) \wedge ((((v7\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X2\ X0)) \wedge (v7\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X3\ X1))) \Rightarrow (v7\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ (k3\_valued\_1\ k1\_numbers\ k1\_numbers\ k1\_numbers\ X2\ X3)\ (k3\_xboole\_0\ X0\ X1)))) \wedge (((v8\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X2\ X0)) \wedge (v8\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X3\ X1))) \Rightarrow (v8\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ (k3\_valued\_1\ k1\_numbers\ k1\_numbers\ k1\_numbers\ X2\ X3)\ (k3\_xboole\_0\ X0\ X1))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \Rightarrow ((v1\_funct\_1\ (k2\_partfun1\ X0\ X1\ X2\ X3)) \wedge (m1\_subset\_1\ (k2\_partfun1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))\Rightarrow(((v1\_funct\_1\ X0)\wedge(v3\_funct\_1\ X0))\Rightarrow((v1\_funct\_1\ X0)\wedge((v7\_valued\_0\ X0)\wedge(v8\_valued\_0\ X0)))) \quad (3)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))\Rightarrow(((v7\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X2\ X0))\wedge(v3\_funct\_1\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X3\ X1)))\Rightarrow(v7\_valued\_0\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ (k3\_valued\_1\ k1\_numbers\ k1\_numbers\ k1\_numbers\ X2\ X3)\ (k3\_xboole\_0\ X0\ X1)))))$$