t93_rfunct_1 (TMUz8chRz2iqS9R6PxqbgY6QnmuGjKcr4xv)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. 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 $v1\_seq\_2 : \iota \Rightarrow o$ be given. Let $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_funct\_1 : \iota \Rightarrow o$ be given. Let $k3\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_seq\_2 : \iota \Rightarrow o$ be given. Let $v1\_comseq\_2 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_1\ X2) \wedge ((v1\_funct\_1\ X2) \wedge (v3\_valued\_0\ X2))) \Rightarrow (\forall X3.((v1\_relat\_1\ X3) \wedge ((v1\_funct\_1\ X3) \wedge (v3\_valued\_0\ X3))) \Rightarrow ((((v1\_seq\_2\ (k5\_relat\_1\ X2\ X0)) \wedge (v1\_seq\_2\ (k5\_relat\_1\ X3\ X1))) \Rightarrow (v1\_seq\_2\ (k5\_relat\_1\ (k1\_valued\_1\ X2\ X3)\ (k3\_xboole\_0\ X0\ X1)))) \wedge ((((v2\_seq\_2\ (k5\_relat\_1\ X2\ X0)) \wedge (v2\_seq\_2\ (k5\_relat\_1\ X3\ X1))) \Rightarrow (v2\_seq\_2\ (k5\_relat\_1\ (k1\_valued\_1\ X2\ X3)\ (k3\_xboole\_0\ X0\ X1)))) \wedge (((v1\_comseq\_2\ (k5\_relat\_1\ X2\ X0)) \wedge (v1\_comseq\_2\ (k5\_relat\_1\ X3\ X1))) \Rightarrow (v1\_comseq\_2\ (k5\_relat\_1\ (k1\_valued\_1\ X2\ X3)\ (k3\_xboole\_0\ X0\ X1)))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v3\_membered\ X1) \wedge ((v3\_membered\ X2) \wedge (((v1\_funct\_1\ X3) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \wedge ((v1\_funct\_1\ X4) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2))))))) \Rightarrow (k3\_valued\_1\ X0\ X1\ X2\ X3\ X4 = k1\_valued\_1\ X3\ X4) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \Rightarrow (k2\_partfun1\ X0\ X1\ X2\ X3 = k5\_relat\_1\ X2\ X3) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0)\wedge(v3\_valued\_0\ X0))\Rightarrow((v1\_relat\_1\ (k5\_relat\_1\ X0\ X1))\wedge(v3\_valued\_0\ (k5\_relat\_1\ X0\ X1))) \tag{4}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v3\_membered\ X1)\wedge((v3\_membered\ X2)\wedge(((v1\_funct\_1\ X3)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\wedge((v1\_funct\_1\ X4)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2)))))))\Rightarrow((v1\_funct\_1\ (k3\_valued\_1\ X0\ X1\ X2\ X3\ X4))\wedge(m1\_subset\_1\ (k3\_valued\_1\ X0\ X1\ X2\ X3\ X4)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\Rightarrow((v1\_funct\_1\ (k2\_partfun1\ X0\ X1\ X2\ X3))\wedge(m1\_subset\_1\ (k2\_partfun1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_valued\_0\ X0)\wedge(v1\_comseq\_2\ X0))))\Rightarrow((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_valued\_0\ X0)\wedge((v1\_seq\_2\ X0)\wedge(v2\_seq\_2\ X0))))) \tag{8}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_funct\_1\ X0)\wedge(v3\_valued\_0\ X0))))\Rightarrow((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_valued\_0\ X0)\wedge(v1\_comseq\_2\ X0)))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(v3\_membered\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v3\_valued\_0\ X2)) \tag{11}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(\neg v1\_xboole\_0\ X2)\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X2\ k1\_numbers))))\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X2\ k1\_numbers))))\Rightarrow((((v1\_seq\_2\ (k2\_partfun1\ X2\ k1\_numbers\ X3\ X0))\wedge(v3\_funct\_1\ (k2\_partfun1\ X2\ k1\_numbers\ X4\ X1)))\Rightarrow(v1\_seq\_2\ (k2\_partfun1\ X2\ k1\_numbers\ (k3\_valued\_1\ X2\ k1\_numbers\ k1\_numbers\ X3\ X4)\ (k3\_xboole\_0\ X0\ X1))))\wedge((((v2\_seq\_2\ (k2\_partfun1\ X2\ k1\_numbers\ X3\ X0))\wedge(v3\_funct\_1\ (k2\_partfun1\ X2\ k1\_numbers\ X4\ X1)))\Rightarrow(v2\_seq\_2\ (k2\_partfun1\ X2\ k1\_numbers\ (k3\_valued\_1\ X2\ k1\_numbers\ k1\_numbers\ X3\ X4)\ (k3\_xboole\_0\ X0\ X1))))\wedge(((v1\_comseq\_2\ (k2\_partfun1\ X2\ k1\_numbers\ X3\ X0))\wedge(v3\_funct\_1\ (k2\_partfun1\ X2\ k1\_numbers\ X4\ X1)))\Rightarrow(v1\_comseq\_2\ (k2\_partfun1\ X2\ k1\_numbers\ (k3\_valued\_1\ X2\ k1\_numbers\ k1\_numbers\ X3\ X4)\ (k3\_xboole\_0\ X0\ X1)))))))))$$