t7_rfunct_2 (TMMbTT1sePGKB4dhvRixseZhjjd5bviNAeV)

October 27, 2020

Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $k1\_numbers : \iota$ 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 $v2\_comseq\_2 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k2\_seq\_2 : \iota \Rightarrow \iota$ be given. Let $k32\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_0 : \iota$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $k30\_valued\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers))))) \Rightarrow ((v2\_comseq\_2\ X0) \Rightarrow (v2\_comseq\_2\ (k32\_valued\_1\ k5\_numbers\ k1\_numbers\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Leftrightarrow (r1\_xxreal\_0\ (k4\_xcmplx\_0\ X1)\ (k4\_xcmplx\_0\ X0)))) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers))))) \Rightarrow (((v2\_comseq\_2\ X0) \wedge (\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers) \Rightarrow (r1\_xxreal\_0\ k6\_numbers\ (k1\_seq\_1\ X0\ X1)))) \Rightarrow (r1\_xxreal\_0\ k6\_numbers\ (k2\_seq\_2\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow((v2\_comseq\_2\ X0)\Rightarrow(k2\_seq\_2\ (k32\_valued\_1\ k5\_numbers\ k1\_numbers\ X0) = k1\_real\_1\ (k2\_seq\_2\ X0)))\tag{5}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow((r2\_funct\_2\ k5\_numbers\ k1\_numbers\ X0\ (k32\_valued\_1\ k5\_numbers\ k1\_numbers\ X1))\Leftrightarrow(\forall X2.(m2\_subset\_1\ X2\ k1\_numbers\ k5\_numbers)\Rightarrow(k1\_seq\_1\ X0\ X2 = k1\_real\_1\ (k1\_seq\_1\ X1\ X2)))))\tag{6}$$

Assume the following.

$$(m2\_subset\_1\ np\_\_0\ k1\_numbers\ k5\_numbers)\wedge((m1\_subset\_1\ np\_\_0\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_0\ k1\_numbers))\tag{7}$$

Assume the following.

$$v1\_xboole\_0\ np\_\_0\tag{8}$$

Assume the following.

$$k4\_xcmplx\_0\ np\_\_0 = np\_\_0\tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))))\Rightarrow((r2\_funct\_2\ X0\ X1\ X2\ X3)\Leftrightarrow(X2 = X3))\tag{10}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0\tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v3\_membered\ X1)\wedge((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\Rightarrow(k32\_valued\_1\ X0\ X1\ X2 = k30\_valued\_1\ X2)\tag{12}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(k1\_real\_1\ X0 = k4\_xcmplx\_0\ X0)\tag{13}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k4\_xcmplx\_0\ (k4\_xcmplx\_0\ X0) = X0) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v3\_membered\ X1) \wedge ((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \Rightarrow (k32\_valued\_1\ X0\ X1\ (k32\_valued\_1\ X0\ X1\ X2) = X2) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v1\_xboole\_0\ X1) \wedge (v3\_membered\ X1)) \wedge ((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X0\ X1) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))) \Rightarrow ((v1\_funct\_1\ (k30\_valued\_1\ X2)) \wedge (v1\_partfun1\ (k30\_valued\_1\ X2)\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)) \wedge (v1\_xreal\_0\ (k4\_xcmplx\_0\ X0))) \tag{17}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{18}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v3\_membered\ X1) \wedge ((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \Rightarrow ((v1\_funct\_1\ (k32\_valued\_1\ X0\ X1\ X2)) \wedge (m1\_subset\_1\ (k32\_valued\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))) \tag{20}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers))))) \Rightarrow (m1\_subset\_1\ (k2\_seq\_2\ X0)\ k1\_numbers) \tag{21}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v3\_valued\_0\ X0))) \Rightarrow (m1\_subset\_1\ (k1\_seq\_1\ X0\ X1)\ k1\_numbers) \tag{22}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xcmplx\_0\ X0) \tag{23}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v5\_relat\_1\ X0\ k1\_numbers))\Rightarrow((v1\_relat\_1\ X0)\wedge(v3\_valued\_0\ X0)) \tag{24}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((v4\_relat\_1\ X2\ X0)\wedge(v5\_relat\_1\ X2\ X1)) \tag{25}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{26}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{27}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((v1\_partfun1\ X2\ X0)\Rightarrow(v1\_funct\_2\ X2\ X0\ X1)) \tag{28}$$

Theorem 1

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k5\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k1\_numbers)))))\Rightarrow(((v2\_comseq\_2\ X0)\wedge(\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers)\Rightarrow(r1\_xxreal\_0\ (k1\_seq\_1\ X0\ X1)\ k6\_numbers)))\Rightarrow(r1\_xxreal\_0\ (k2\_seq\_2\ X0)\ k6\_numbers))$$