

## t48\_rfunct\_2

(TMH256Hr244Fy5tjg2hdSWdRLUZnQ5DrMk1)

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  $v5\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v6\_valued\_0 : \iota \Rightarrow o$  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  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k26\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $k30\_valued\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k24\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_valued\_0 : \iota \Rightarrow o$  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.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 k1\_numbers) \Rightarrow (\forall X2. \\ & ((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers \\ & k1\_numbers)))) \Rightarrow (((v5\_valued\_0 (k2\_partfun1 k1\_numbers k1\_numbers \\ & X2 X0)) \Rightarrow ((r1\_xxreal\_0 X1 k6\_numbers) \vee (v5\_valued\_0 (k2\_partfun1 \\ & k1\_numbers k1\_numbers (k26\_valued\_1 k1\_numbers k1\_numbers X2 \\ & X1) X0)))) \wedge (((X1 = k6\_numbers) \Rightarrow (v3\_funct\_1 (k2\_partfun1 k1\_numbers \\ & k1\_numbers (k26\_valued\_1 k1\_numbers k1\_numbers X2 X1) X0))) \wedge \\ & (v5\_valued\_0 (k2\_partfun1 k1\_numbers k1\_numbers X2 X0)) \Rightarrow ((r1\_xxreal\_0 \\ & k6\_numbers X1) \vee (v6\_valued\_0 (k2\_partfun1 k1\_numbers k1\_numbers \\ & (k26\_valued\_1 k1\_numbers k1\_numbers X2 X1) X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$v1\_xboole\_0 \text{ np\_}0 \quad (4)$$

Assume the following.

$$\neg r1\_xxreal\_0 \text{ np\_}0 (k4\_xcmplx\_0 \text{ np\_}1) \quad (5)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v3\_membered X1)\wedge((v1\_funct\_1 \\ X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))))))\Rightarrow(k32\_valued\_1 \\ X0 X1 X2 = k30\_valued\_1 X2) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.((v3\_membered X1)\wedge \\ (((v1\_funct\_1 X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ X0 X1)))))\wedge(v1\_xreal\_0 X3))\Rightarrow(k26\_valued\_1 X0 X1 X2 X3 = k24\_valued\_1 \\ X2 X3) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers)\Rightarrow(k1\_real\_1 X0 = k4\_xcmplx\_0 X0) \quad (9)$$

Assume the following.

$$v3\_membered k1\_numbers \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers)\Rightarrow(m1\_subset\_1 (k1\_real\_1 \\ X0) k1\_numbers) \quad (11)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_valued\_0 X0)))\Rightarrow \\ (k30\_valued\_1 X0 = k24\_valued\_1 X0 (k4\_xcmplx\_0 \text{ np\_}1)) \quad (12)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge(v3\_valued\_0 X0))\Rightarrow((v1\_relat\_1 \\ X0)\wedge(v1\_valued\_0 X0)) \quad (13)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge(v5\_relat\_1 X0 k1\_numbers))\Rightarrow((v1\_relat\_1 \\ X0)\wedge(v3\_valued\_0 X0)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow((v4\_relat\_1 X2 X0)\wedge(v5\_relat\_1 X2 X1)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (16)$$

Assume the following.

$$\forall X0.(v3\_membered X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 X0)\Rightarrow(v1\_xreal\_0 X1)) \quad (17)$$

**Theorem 1**

$$\forall X0.\forall X1.((v1\_funct\_1 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers))))\Rightarrow((v5\_valued\_0 (k2\_partfun1 k1\_numbers k1\_numbers X1 X0))\Rightarrow(v6\_valued\_0 (k2\_partfun1 k1\_numbers k1\_numbers (k32\_valued\_1 k1\_numbers k1\_numbers X1) X0)))$$