

t19\_valued\_0

(TMb76bee3WZHeazuM7wRomUGzwuHvR65qHX)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. 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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m2\_valued\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_valued\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge \\ (v1\_funct\_2 X1 k5\_numbers X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ k5\_numbers X0)))) \Rightarrow (r2\_funct\_2 k5\_numbers X0 (k10\_nat\_1 X0 X1 \\ k6\_numbers) X1)) \end{aligned} \tag{1}$$

Assume the following.

$$m1\_subset\_1 k1\_xboole\_0 k4\_ordinal1 \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. (((v1\_funct\_1 X2) \wedge \\ ((v1\_funct\_2 X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ X0 X1)))) \wedge ((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 X0 X1) \wedge (m1\_subset\_1 \\ X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow ((r2\_funct\_2 X0 X1 X2 \\ X3) \Leftrightarrow (X2 = X3)) \end{aligned} \tag{3}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{4}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0 X0)\wedge(((v1\_funct\_1 X1)\wedge((v1\_funct\_2 X1 k5\_numbers X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0))))))\wedge(v7\_ordinal1 X2)))\Rightarrow(k1\_valued\_0 X0 X1 X2 = k9\_nat\_1 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0 X0)\wedge(((v1\_funct\_1 X1)\wedge((v1\_funct\_2 X1 k5\_numbers X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0))))))\wedge(v7\_ordinal1 X2)))\Rightarrow(k10\_nat\_1 X0 X1 X2 = k9\_nat\_1 X1 X2) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0 X0)\wedge(((v1\_funct\_1 X1)\wedge((v1\_funct\_2 X1 k5\_numbers X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0))))))\wedge(v7\_ordinal1 X2)))\Rightarrow(m2\_valued\_0 (k1\_valued\_0 X0 X1 X2) X0 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0 X0)\wedge(((v1\_funct\_1 X1)\wedge((v1\_funct\_2 X1 k5\_numbers X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0))))))\wedge(v7\_ordinal1 X2)))\Rightarrow((v1\_funct\_1 (k10\_nat\_1 X0 X1 X2))\wedge((v1\_funct\_2 (k10\_nat\_1 X0 X1 X2) k5\_numbers X0)\wedge(m1\_subset\_1 (k10\_nat\_1 X0 X1 X2) (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))))) \quad (9)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota.v1\_xboole\_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1)\Rightarrow(v7\_ordinal1 X0) \quad (11)$$

**Theorem 1**

$$\forall X0.(\neg v1\_xboole\_0 X0)\Rightarrow(\forall X1.((v1\_funct\_1 X1)\wedge((v1\_funct\_2 X1 k5\_numbers X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0))))))\Rightarrow(m2\_valued\_0 X1 X0 X1))$$