

t39\_valued\_1  
(TMM6Jee6hayJtBtUVu1MQDyGAJy5bB4xAFW)

October 27, 2020

Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k61\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 X0 k5\_numbers) \wedge (v7\_ordinal1 X1)) \Rightarrow (k2\_nat\_1 X0 X1 = k2\_xcmplx\_0 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (k1\_relset\_1 X0 X1 = k9\_xtuple\_0 X1) \quad (4)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (5)$$

Assume the following.

$$v6\_membered k4\_ordinal1 \quad (6)$$

Assume the following.

$$\neg v1\_xboole\_0 \ k1\_numbers \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((v1\_relat\_1 \ X0) \wedge (v1\_funct\_1 \ X0)) \wedge (v7\_ordinal1 \\ X1)) \Rightarrow ((v1\_relat\_1 \ (k61\_valued\_1 \ X0 \ X1)) \wedge ((v4\_relat\_1 \ (k61\_valued\_1 \\ X0 \ X1) \ k5\_numbers) \wedge (v1\_funct\_1 \ (k61\_valued\_1 \ X0 \ X1)))) \end{aligned} \quad (8)$$

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 \ X0) \wedge (v1\_funct\_1 \ X0)) \Rightarrow (\forall X1. (v7\_ordinal1 \\ X1) \Rightarrow (\forall X2. ((v1\_relat\_1 \ X2) \wedge (v1\_funct\_1 \ X2)) \Rightarrow ((X2 = k61\_valued\_1 \\ X0 \ X1) \Leftrightarrow ((k9\_xtuple\_0 \ X2 = ReplSep \ (toset \ (\lambda X3 : \iota. m2\_subset\_1 \\ X3 \ k1\_numbers \ k5\_numbers)) \ (\lambda X3 : \iota. X3 \in k9\_xtuple\_0 \ X0) \ (\lambda X3 : \\ \iota. k2\_nat\_1 \ X3 \ X1)) \wedge (\forall X3. (m2\_subset\_1 \ X3 \ k1\_numbers \ k5\_numbers) \Rightarrow \\ ((X3 \in k9\_xtuple\_0 \ X0) \Rightarrow (k1\_funct\_1 \ X2 \ (k2\_nat\_1 \ X3 \ X1) = k1\_funct\_1 \\ X0 \ X3))))))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0. (v6\_membered \ X0) \Rightarrow (\forall X1. (m1\_subset\_1 \ X1 \ X0) \Rightarrow (v7\_ordinal1 \ X1)) \quad (11)$$

**Theorem 1**

$$\begin{aligned} \forall X0. ((v1\_relat\_1 \ X0) \wedge (v1\_funct\_1 \ X0)) \Rightarrow (\forall X1. (v7\_ordinal1 \\ X1) \Rightarrow (\forall X2. (v7\_ordinal1 \ X2) \Rightarrow (\neg (X1 \in k1\_relset\_1 \ k5\_numbers \\ (k61\_valued\_1 \ X0 \ X2)) \wedge (\forall X3. (v7\_ordinal1 \ X3) \Rightarrow (\neg (X3 \in k9\_xtuple\_0 \\ X0) \wedge (X1 = k2\_xcmplx\_0 \ X3 \ X2)))))) \end{aligned}$$