

## t35\_valued\_1

(TMa5HzWjL2njENMVnQSHaEzdCphqBQeZUNh)

October 27, 2020

Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k64\_valued\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k2\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v4\_membered : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v5\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1\_xboole\_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((\neg v1\_xboole\_0 X0) \wedge (v1\_finset\_1 X0)))))) \Rightarrow (k64\_valued\_1 X0 \in k1\_relset\_1 k5\_numbers X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (3)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (k1\_relset\_1 X0 X1 = k9\_xtuple\_0 X1) \quad (5)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v4\_relat\_1 X0 k5\_numbers)) \Rightarrow (v6\_membered (k9\_xtuple\_0 X0)) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_membered\ X0)\wedge(v1\_xxreal\_2\ X0))\Rightarrow(\forall X1. \\ & (v1\_xxreal\_0\ X1)\Rightarrow((X1 = k2\_xxreal\_2\ X0)\Leftrightarrow((X1 \in X0)\wedge(\forall X2. \\ & (v1\_xxreal\_0\ X2)\Rightarrow((X2 \in X0)\Rightarrow(r1\_xxreal\_0\ X1\ X2)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1 \\ & X0)\wedge(\neg v1\_xboole\_0\ X0))))\Rightarrow(k64\_valued\_1\ X0 = k2\_xxreal\_2\ (k1\_relset\_1 \\ & k5\_numbers\ X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(v2\_membered\ X0) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v6\_membered\ X0)\wedge(\neg v1\_xboole\_0\ X0))\Rightarrow((v6\_membered \\ & X0)\wedge((\neg v1\_xboole\_0\ X0)\wedge(v1\_xxreal\_2\ X0))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(v4\_membered\ X0)\Rightarrow(v3\_membered\ X0) \quad (11)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \quad (12)$$

Assume the following.

$$\forall X0.(v5\_membered\ X0)\Rightarrow(v4\_membered\ X0) \quad (13)$$

Assume the following.

$$\forall X0.(v6\_membered\ X0)\Rightarrow(v5\_membered\ X0) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v6\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow \\ & (v7\_ordinal1\ X1)) \end{aligned} \quad (15)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)\Rightarrow(\forall X1. \\ & ((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v1\_funct\_1\ X1)\wedge \\ & ((\neg v1\_xboole\_0\ X1)\wedge(v1\_finset\_1\ X1))))))\Rightarrow((X0 \in k1\_relset\_1\ k5\_numbers \\ & X1)\Rightarrow(r1\_xxreal\_0\ (k64\_valued\_1\ X1\ X0))) \end{aligned}$$