

t25_valued_0
(TMV8GKk16MgMLuffoPKzD3erEUPXK2QgNWG)

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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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k8_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (r1_xxreal_0 k6_numbers X0) \quad (1)$$

Assume the following.

$$\forall X0 : \iota \Rightarrow o. ((X0 k6_numbers) \wedge (\forall X1.(v7_ordinal1 X1) \Rightarrow ((X0 X1) \Rightarrow (X0 (k1_nat_1 X1 np_1)))))) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \wedge (v7_ordinal1 X2)) \Rightarrow (k8_nat_1 X0 X1 X2 = k1_funct_1 X1 X2) \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \wedge (v7_ordinal1 X2)) \Rightarrow (m1_subset_1 (k8_nat_1 X0 X1 X2) X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge \\ (v1_funct_2 X1 k5_numbers X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ k5_numbers X0)))) \Rightarrow ((v3_funct_1 X1) \Leftrightarrow (\exists X2.(m1_subset_1 \\ X2 X0) \wedge (\forall X3.(v7_ordinal1 X3) \Rightarrow (k8_nat_1 X0 X1 X3 = X2)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v7_ordinal1 X0) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge \\ (v1_funct_2 X1 k5_numbers X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ k5_numbers X0)))) \Rightarrow ((\forall X2.(v7_ordinal1 X2) \Rightarrow (k8_nat_1 \\ X0 X1 X2 = k8_nat_1 X0 X1 (k1_nat_1 X2 np_1))) \Rightarrow (v3_funct_1 X1))) \end{aligned}$$