

t4_mesfun10

(TMSHLXMzW4rs6uYbyjU6dYBjztVPssQe8cS)

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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 $k7_numbers : \iota$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_rinfsup2 : \iota \Rightarrow \iota$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $k7_supinf_2 : \iota \Rightarrow \iota$ be given. Let $k2_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k17_supinf_2 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v2_valued_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_xxreal_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v2_membered X0) \Rightarrow (k7_supinf_2 X0 = k2_xxreal_2 X0) \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

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.

$$\forall X0. ((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k7_numbers) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers)))))) \Rightarrow (k17_supinf_2 X0 = k10_xtuple_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_valued_0 X0)))\Rightarrow(k12_supinf_2 X0 X1 = k1_funct_1 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v2_valued_0 X0))\Rightarrow(v2_membered (k10_xtuple_0 X0)) \quad (7)$$

Assume the following.

$$v2_membered k7_numbers \quad (8)$$

Assume the following.

$$\forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k7_numbers)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers)))))\Rightarrow(m1_subset_1 (k2_rinf sup2 X0) k7_numbers) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge(v4_relat_1 X1 X0))\Rightarrow(m1_subset_1 (k1_relset_1 X0 X1) (k1_zfmisc_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow((X1 = k2_xxreal_2 X0)\Leftrightarrow((m2_xxreal_2 X1 X0)\wedge(\forall X2.(m2_xxreal_2 X2 X0)\Rightarrow(r1_xxreal_0 X2 X1)))) \quad (11)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v1_funct_1 X0))\Rightarrow(\forall X1.(X1 = k10_xtuple_0 X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(\exists X3.(X3 \in k9_xtuple_0 X0)\wedge(X2 = k1_funct_1 X0 X3)))) \quad (12)$$

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow((m2_xxreal_2 X1 X0)\Leftrightarrow(\forall X2.(v1_xxreal_0 X2)\Rightarrow((X2 \in X0)\Rightarrow(r1_xxreal_0 X1 X2)))) \quad (13)$$

Assume the following.

$$\forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k7_numbers)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers)))))\Rightarrow(k2_rinf sup2 X0 = k7_supinf_2 (k17_supinf_2 X0)) \quad (14)$$

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.

$$\forall X0.(m1_subset_1 X0 k7_numbers)\Rightarrow(v1_xreal_0 X0) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(v2_membered X1)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v2_valued_0 X2)) \quad (18)$$

Assume the following.

$$\forall X0.(v6_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v7_ordinal1 X1)) \quad (19)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k5_numbers))\Rightarrow(v6_membered X0) \quad (20)$$

Theorem 1

$$\forall X0.(((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k7_numbers)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers))))))\Rightarrow(\forall X1.(m1_subset_1 X1 k7_numbers)\Rightarrow((\forall X2.(v7_ordinal1 X2)\Rightarrow(r1_xreal_0 X1 (k12_supinf_2 X0 X2)))\Rightarrow(r1_xreal_0 X1 (k2_rinfsup2 X0))))$$