

t29_mesfun7c

(TMGK2LsewwfwL4tn6YFSSsa7NgNgnZS4Hcf)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_prob_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_prob_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_mesfunc6c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_mesfunc6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_mesfunc6c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k55_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v6_supinf_2 : \iota \Rightarrow o$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $k54_valued_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_complex1 : \iota \Rightarrow \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 k2_numbers)))) \Rightarrow (\forall X3. (\\ & m2_subset_1 X3 (k1_zfmisc_1 X0) X1) \Rightarrow (((r1_mesfunc6c X0 X1 X2 X3) \wedge \\ & (r1_tarski X3 (k1_relset_1 X0 X2))) \Rightarrow (r1_mesfunc6 X0 X1 (k55_valued_1 \\ & X0 k2_numbers X2) X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. \\ & ((\neg v1_xboole_0 X2) \wedge ((v1_prob_1 X2 X1) \wedge ((v4_prob_1 X2 X1) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k1_zfmisc_1 X1)))))) \Rightarrow (\forall X3. (m2_subset_1 \\ & X3 (k1_zfmisc_1 X1) X2) \Rightarrow (\forall X4. ((v1_funct_1 X4) \wedge (m1_subset_1 \\ & X4 (k1_zfmisc_1 (k2_zfmisc_1 X1 k1_numbers)))) \Rightarrow (((v6_supinf_2 \\ & X4) \wedge ((r1_xxreal_0 k6_numbers X0) \wedge ((r1_tarski X3 (k1_relset_1 \\ & X1 X4)) \wedge (r1_mesfunc6 X1 X2 X4 X3)))) \Rightarrow (r1_mesfunc6 X1 X2 (k2_mesfunc6c \\ & X0 X1 X4) X3)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_membered\ X1)\wedge((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))))))\Rightarrow(k55_valued_1\ X0\ X1\ X2 = k54_valued_1\ X2) \quad (3)$$

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.

$$\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k2_numbers))))\Rightarrow(v6_supinf_2\ (k55_valued_1\ X0\ k2_numbers\ X1))) \quad (5)$$

Assume the following.

$$v1_membered\ k2_numbers \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_membered\ X1)\wedge((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))))))\Rightarrow((v1_funct_1\ (k55_valued_1\ X0\ X1\ X2))\wedge(m1_subset_1\ (k55_valued_1\ X0\ X1\ X2)\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k1_numbers)))) \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_valued_0\ X0)))\Rightarrow((v1_relat_1\ (k54_valued_1\ X0))\wedge((v1_funct_1\ (k54_valued_1\ X0))\wedge(v3_valued_0\ (k54_valued_1\ X0)))) \quad (8)$$

Assume the following.

$$\begin{aligned} &\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_valued_0\ X0)))\Rightarrow \\ &(\forall X1.((v1_relat_1\ X1)\wedge((v1_funct_1\ X1)\wedge(v3_valued_0\ X1))))\Rightarrow((X1 = k54_valued_1\ X0)\Leftrightarrow((k9_xtuple_0\ X1 = k9_xtuple_0\ X0)\wedge \\ &(\forall X2.(X2 \in k9_xtuple_0\ X1)\Rightarrow(k1_funct_1\ X1\ X2 = k17_complex1\ (k1_funct_1\ X0\ X2))))) \quad (9) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))\Rightarrow((v4_relat_1\ X2\ X0)\wedge(v5_relat_1\ X2\ X1)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))\Rightarrow(v1_relat_1\ X2) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_membered\ X1) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))) \Rightarrow (v1_valued_0\ X2)) \end{aligned} \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0\ X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0\ X1) \wedge \\ & ((v1_prob_1\ X1\ X0) \wedge ((v4_prob_1\ X1\ X0) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1 \\ & (k1_zfmisc_1\ X0)))))) \Rightarrow (\forall X2. ((v1_funct_1\ X2) \wedge (m1_subset_1 \\ & X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k2_numbers)))) \Rightarrow (\forall X3. (\\ & v1_xreal_0\ X3) \Rightarrow (\forall X4. (m2_subset_1\ X4\ (k1_zfmisc_1\ X0)\ X1) \Rightarrow \\ & (((r1_xxreal_0\ k6_numbers\ X3) \wedge ((r1_tarski\ X4\ (k1_relset_1\ X0 \\ & X2)) \wedge (r1_mesfun6c\ X0\ X1\ X2\ X4))) \Rightarrow (r1_mesfunc6\ X0\ X1\ (k2_mesfun6c \\ & X3\ X0\ (k55_valued_1\ X0\ k2_numbers\ X2))\ X4)))))) \end{aligned}$$