

t60_mesfunc5 (TMGHTfgSPVW- PvYHH2YiLiUKUuxkWn5S7crz)

October 27, 2020

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 $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k8_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v10_mesfunc5 : \iota \Rightarrow o$ be given. Let $k2_mesfunc5 : \iota \Rightarrow \iota$ be given. Let $k8_supinf_2 : \iota \Rightarrow \iota$ be given. Let $k17_supinf_2 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k7_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers)))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 k7_numbers) \Rightarrow ((\forall X2.(v7_ordinal1 \\ & X2) \Rightarrow (r1_xxreal_0 (k8_nat_1 k7_numbers X0 X2) X1)) \Rightarrow (r1_xxreal_0 \\ & (k8_supinf_2 (k17_supinf_2 X0) X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k7_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers)))))) \Rightarrow \\ & (\forall X1.(v7_ordinal1 X1) \Rightarrow (r1_xxreal_0 (k8_nat_1 k7_numbers \\ & X0 X1) (k8_supinf_2 (k17_supinf_2 X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k7_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers)))))) \Rightarrow \\ & ((\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow \\ & ((r1_xxreal_0 X1 X2) \Rightarrow (r1_xxreal_0 (k8_nat_1 k7_numbers X0 X1) \\ & (k8_nat_1 k7_numbers X0 X2)))))) \Rightarrow ((v10_mesfunc5 X0) \wedge (k2_mesfunc5 \\ & X0 = k8_supinf_2 (k17_supinf_2 X0)))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \tag{4}$$

Assume the following.

$$\exists X0.v7_ordinal1 X0 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_funct_1 X1)\wedge((v1_funct_2 \\ & X1 k5_numbers X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & X0))))))\wedge(v7_ordinal1 X2))\Rightarrow(m1_subset_1 (k8_nat_1 X0 X1 X2) X0) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k7_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers))))))\Rightarrow \\ & (m1_subset_1 (k2_mesfunc5 X0) k7_numbers) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(\\ & (r1_xxreal_0 X0 X1)\vee(r1_xxreal_0 X1 X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k7_numbers)\Rightarrow(v1_xxreal_0 X0) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k7_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers))))))\Rightarrow \\ & (\forall X1.(v1_xxreal_0 X1)\Rightarrow((\forall X2.(v7_ordinal1 X2)\Rightarrow \\ & (k8_nat_1 k7_numbers X0 X2 = X1))\Rightarrow((v10_mesfunc5 X0)\wedge((k2_mesfunc5 \\ & X0 = X1)\wedge(k2_mesfunc5 X0 = k8_supinf_2 (k17_supinf_2 X0)))))) \end{aligned}$$