

t7_mesfunc1

(TMVy737SByHENZUUYBfZZK5izMf1mixHM6L)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_numbers : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_supinf_2 : \iota$ be given. Let $k12_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_extreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_mesfunc1 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. 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 $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_measure6 : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 \ X0) \wedge (((v1_relat_1 \\ & X1) \wedge ((v4_relat_1 \ X1 \ X0) \wedge ((v5_relat_1 \ X1 \ k7_numbers) \wedge (v1_funct_1 \\ & X1)))) \wedge (m1_subset_1 \ X2 \ k1_numbers))) \Rightarrow ((v1_funct_1 \ (k9_mesfunc1 \\ & X0 \ X1 \ X2)) \wedge (m1_subset_1 \ (k9_mesfunc1 \ X0 \ X1 \ X2) \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ & X0 \ k7_numbers)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 \ X0) \Rightarrow (\forall X1. ((v1_relat_1 \ X1) \wedge \\ & (v4_relat_1 \ X1 \ X0) \wedge ((v5_relat_1 \ X1 \ k7_numbers) \wedge (v1_funct_1 \ X1))) \Rightarrow \\ & (\forall X2. (m1_subset_1 \ X2 \ k1_numbers) \Rightarrow (\forall X3. ((v1_funct_1 \\ & X3) \wedge (m1_subset_1 \ X3 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ k7_numbers)))) \Rightarrow \\ & ((X3 = k9_mesfunc1 \ X0 \ X1 \ X2) \Leftrightarrow ((k9_xtuple_0 \ X3 = k6_subset_1 \ (k9_xtuple_0 \\ & X1) \ (k8_relat_1 \ X1 \ (k1_tarski \ k1_supinf_2))) \wedge (\forall X4. (m1_subset_1 \\ & X4 \ X0) \Rightarrow ((X4 \in k9_xtuple_0 \ X3) \Rightarrow (k12_supinf_2 \ X3 \ X4 = k2_extreal1 \\ & (k1_measure6 \ X2) \ (k12_supinf_2 \ X1 \ X4)))))))) \end{aligned} \quad (3)$$

Assume the following.

$$k8_mesfunc1 = np_1 \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k1_measure6 X0 = X0) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xreal_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((v4_relat_1 X2 X0) \wedge (v5_relat_1 X2 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (9)$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 k7_numbers)))) \Rightarrow ((k9_xtuple_0 (k9_mesfunc1 X0 X1 np_1) = k6_subset_1 (k9_xtuple_0 X1) (k8_relat_1 X1 (k1_tarski k1_supinf_2))) \wedge (\forall X2.(m1_subset_1 X2 X0) \Rightarrow ((X2 \in k9_xtuple_0 (k9_mesfunc1 X0 X1 np_1)) \Rightarrow (k12_supinf_2 (k9_mesfunc1 X0 X1 np_1) X2 = k2_extreal1 k8_mesfunc1 (k12_supinf_2 X1 X2))))))$$