

t1_mesfun6c (TM-
SnFnBmRQ66mUhhPV8NBHpRK3vmf79BAAD)

October 27, 2020

Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k3_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_measure6 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_supinf_2 : \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k4_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_extreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_numbers : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k7_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k7_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 k1_numbers) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow (k4_supinf_2 \\ & X0 X1 = k9_real_1 X2 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k7_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_numbers) \Rightarrow ((X0 = X1) \Rightarrow (k2_supinf_2 X0 = k1_real_1 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k7_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k7_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 k1_numbers) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow (k3_supinf_2 \\ & X0 X1 = k7_real_1 X2 X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k7_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k7_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 k1_numbers) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow (k1_extreal1 \\ & X0 X1 = k11_binop_2 X2 X3)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k9_real_1 X0 X1 = k6_xcmplx_0 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k7_real_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k1_real_1 X0 = k4_xcmplx_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (k11_binop_2 X0 X1 = k3_xcmplx_0 X0 X1) \quad (9)$$

Assume the following.

$$v3_membered k1_numbers \quad (10)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (m1_subset_1 (k1_measure6 X0) k7_numbers) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Leftrightarrow (X0 \in k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (k1_measure6 X0 = X0) \quad (13)$$

Assume the following.

$$\forall X0.(v3_membered X0) \Rightarrow (v2_membered X0) \quad (14)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_xxreal_0 X1)) \quad (15)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((k3_supinf_2 \\ & (k1_measure6 X0) (k1_measure6 X1) = k2_xcmplx_0 X0 X1) \wedge ((k2_supinf_2 \\ & (k1_measure6 X0) = k4_xcmplx_0 X0) \wedge ((k4_supinf_2 (k1_measure6 \\ & X0) (k1_measure6 X1) = k6_xcmplx_0 X0 X1) \wedge (k1_extreal1 (k1_measure6 \\ & X0) (k1_measure6 X1) = k3_xcmplx_0 X0 X1)))))) \end{aligned}$$