

t28_extreal2

(TMYSGA9ox21ikRM18FgCESsGmSXHVH94sfg)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_numbers : \iota$ be given. Let $k3_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_extreal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_extreal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k7_numbers) \wedge (m1_subset_1 X1 k7_numbers)) \Rightarrow (k2_extreal2 X0 X1 = k3_xxreal_0 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k7_numbers) \wedge (m1_subset_1 X1 k7_numbers)) \Rightarrow (k1_extreal2 X0 X1 = k4_xxreal_0 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k7_numbers) \wedge (m1_subset_1 X1 k7_numbers)) \Rightarrow (m1_subset_1 (k2_extreal2 X0 X1) k7_numbers) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k7_numbers) \wedge (m1_subset_1 X1 k7_numbers)) \Rightarrow (m1_subset_1 (k1_extreal2 X0 X1) k7_numbers) \quad (4)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (k3_xxreal_0 X0 X1 = X0)) \wedge ((\neg r1_xxreal_0 X0 X1) \Rightarrow (k3_xxreal_0 X0 X1 = X1)))) \quad (5)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X1 X0) \Rightarrow (k4_xxreal_0 X0 X1 = X0)) \wedge ((\neg r1_xxreal_0 X1 X0) \Rightarrow (k4_xxreal_0 X0 X1 = X1)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k7_numbers)\wedge(m1_subset_1 X1 k7_numbers))\Rightarrow(k3_supinf_2 X0 X1 = k3_supinf_2 X1 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k7_numbers)\wedge(m1_subset_1 X1 k7_numbers))\Rightarrow(k2_extreal2 X0 X1 = k2_extreal2 X1 X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k7_numbers)\Rightarrow(v1_xreal_0 X0) \quad (9)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k7_numbers)\Rightarrow(\forall X1.(m1_subset_1 X1 k7_numbers)\Rightarrow(k3_supinf_2 (k2_extreal2 X0 X1) (k1_extreal2 X0 X1) = k3_supinf_2 X0 X1))$$