

l2_axioms

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k5_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((k5_arytm_0 X0 X1 \in k1_numbers) \Rightarrow (X1 = k6_numbers))) \quad (1)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (((X1 = k6_numbers) \Rightarrow (k5_arytm_0 X0 X1 = X0)) \wedge ((X1 \neq k6_numbers) \Rightarrow (k5_arytm_0 X0 X1 = k5_funct_4 k1_numbers k6_numbers np_1 X0 X1)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Leftrightarrow (X0 \in k1_numbers) \quad (3)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow ((X0 = k5_arytm_0 X1 X2) \Rightarrow ((X2 = k6_numbers) \wedge (X0 = X1)))))$$