

l22_toprealc
(TMNMsrrkgyhr99E16QjbVC5sLgsukC9NrDt)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k3_finseq_1 X0 = k1_card_1 X0) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v1_finseq_1 X0) \wedge (v3_valued_0 X0)))) \Rightarrow (m2_finseq_2 X0 k1_numbers (k1_euclid (k3_finseq_1 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (v3_card_1 X1 X0) \Leftrightarrow (k1_card_1 X1 = X0) \quad (3)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (k1_euclid X0 = k4_finseq_2 X0 k1_numbers) \quad (4)$$

Theorem 1

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge ((v3_valued_0 X1) \wedge ((v3_card_1 X1 X0) \wedge (v1_finseq_1 X1))))) \Rightarrow (m2_finseq_2 X1 k1_numbers (k4_finseq_2 X0 k1_numbers)))$$