

t3_euclid_7

(TMdf7g4R4fYzjuD9egmpA6ErFpNs8hm6CHX)

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Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ X1))) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k4_finseq_1 X1 = k2_finseq_1 np_1) \wedge \\ (k10_xtuple_0 X1 = k1_tarski X0))) \end{aligned} \quad (1)$$

Assume the following.

$$(k2_finseq_1 np_1 = k1_tarski np_1) \wedge (k2_finseq_1 np_2 = k2_tarski \\ np_1 np_2) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (v1_relat_1 X1) \Rightarrow ((r1_tarski \\ (k10_xtuple_0 X0) (k9_xtuple_0 X1)) \Rightarrow (k9_xtuple_0 (k3_relat_1 \\ X0 X1) = k9_xtuple_0 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \\ ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((X0 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 \\ (k3_relat_1 X1 X2) X0 = k1_funct_1 X2 (k1_funct_1 X1 X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski \ X0 \ X0 \quad (6)$$

Assume the following.

$$\forall X0. k9_finseq_1 \ X0 = k5_finseq_1 \ X0 \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge (m1_subset_1 \ X1 \ X0)) \Rightarrow \\ & (k12_finseq_1 \ X0 \ X1 = k5_finseq_1 \ X1) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. v1_finseq_1 \ (k5_finseq_1 \ X0) \quad (10)$$

Assume the following.

$$\neg v1_finset_1 \ k4_ordinal1 \quad (11)$$

Assume the following.

$$\forall X0. (v1_relat_1 \ (k5_finseq_1 \ X0)) \wedge (v1_funct_1 \ (k5_finseq_1 \ X0)) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 \ X0) \wedge (v1_funct_1 \ X0)) \wedge ((\\ & v1_relat_1 \ X1) \wedge (v1_funct_1 \ X1))) \Rightarrow ((v1_relat_1 \ (k3_relat_1 \ X0 \\ & X1)) \wedge (v1_funct_1 \ (k3_relat_1 \ X0 \ X1))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 \ (k3_relat_1 \ X0 \ X1) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 \ X1) \wedge (v1_funct_1 \ X1)) \Rightarrow ((X1 = \\ & k9_finseq_1 \ X0) \Leftrightarrow ((k9_xtuple_0 \ X1 = k2_finseq_1 \ np_1) \wedge (k1_funct_1 \\ & X1 \ np_1 = X0))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski \ X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (16)$$

Assume the following.

$$\forall X0. (v1_xboole_0 \ X0) \Rightarrow (v1_finset_1 \ X0) \quad (17)$$

Theorem 1

$$\forall X0. k3_relat_1 (k12_finseq_1 k5_numbers np_1) (k9_finseq_1 X0) = k9_finseq_1 X0$$