

t41_euclid_2
(TMUbiT18bA8KcYCgiFGpHwyL1jU31i3M5od)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $k23_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ (k15_euclid X0))) \Rightarrow ((k23_rvsum_1 X1 X1 = k6_numbers) \Leftrightarrow (k12_euclid \\ X1 = k6_numbers))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ (k15_euclid X0))) \Rightarrow (k23_rvsum_1 X1 (k4_struct_0 (k15_euclid X0)) = \\ k6_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 (k15_euclid X0))) \Rightarrow ((k12_euclid \\ X1 = k6_numbers) \Rightarrow (X1 = k4_struct_0 (k15_euclid X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (8)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0) \Leftrightarrow (X0 \in k4_ordinal1) \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.(v7_ordinal1 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (u1_struct_0 \\ (k15_euclid \ X0))) \Rightarrow ((k23_rvsum_1 \ X1 \ X1 = k6_numbers) \Leftrightarrow (X1 = k4_struct_0 \\ (k15_euclid \ X0)))) \end{aligned}$$