

t65_euclid_8 (TMMmmmh- mje9SwHXzFAtFtzRMQFeP8yorNam)

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Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Let $k7_square_1 : \iota \Rightarrow \iota$ be given. Let $k9_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_square_1 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k23_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_2 X0 k1_numbers (k1_euclid np_3)) \Rightarrow & (k23_rvsum_1 \\ X0 X0 = k9_binop_2 (k9_binop_2 (k5_square_1 (k1_seq_1 X0 np_1)) & \\ (k5_square_1 (k1_seq_1 X0 np_2))) (k5_square_1 (k1_seq_1 X0 np_3))) & \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m2_finseq_2 X1 k1_numbers & \\ (k1_euclid X0)) \Rightarrow (k12_euclid X1 = k7_square_1 (k23_rvsum_1 X1 X1))) & \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_3) \wedge (m2_subset_1 np_3 k1_numbers k5_numbers)) \wedge & \\ ((m1_subset_1 np_3 k5_numbers) \wedge (m1_subset_1 np_3 k1_numbers)) & \end{aligned} \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.(m2_finseq_2 X0 k1_numbers (k1_euclid np_3)) \Rightarrow & (k12_euclid \\ X0 = k7_square_1 (k9_binop_2 (k9_binop_2 (k5_square_1 (k1_seq_1 & \\ X0 np_1)) (k5_square_1 (k1_seq_1 X0 np_2))) (k5_square_1 (k1_seq_1 & \\ X0 np_3))) & \end{aligned}$$