

t5_euclid.3 (TM-
cZZBAKhdJ7o4EfF7d8N7LadvUk2AeC2hH)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_euclid_3 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_complex1 : \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_complex1 : \iota \Rightarrow \iota$ be given. Let $k5_arytm_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_complex1 : \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow ((k3_complex1 (k5_arytm_0 X0 X1) = X0) \wedge (k4_complex1 \\ (k5_arytm_0 X0 X1) = X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow (k5_arytm_0 X0 X1 = k2_xcmplx_0 X0 (k3_xcmplx_0 \\ X1 k7_complex1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (m1_subset_1 \\ X1 k1_numbers)) \Rightarrow (m1_subset_1 (k5_arytm_0 X0 X1) k2_numbers) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k1_euclid_3 X0 = k19_euclid (k3_complex1 \\ X0) (k4_complex1 X0)) \quad (4)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k1_numbers) \Rightarrow (k1_euclid_3 (k2_xcmplx_0 X0 (k3_xcmplx_0 X1 k7_complex1)) = \\ k19_euclid X0 X1)) \end{aligned}$$