t13_euclid_5 (TMQVxMu4mibMR4QZ1mVS3yzSJdX3p8gqfSM)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $np\_\_3 : \iota$ be given. Let $k4\_euclid\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_euclid\_5 : \iota \Rightarrow \iota$ be given. Let $k2\_euclid\_5 : \iota \Rightarrow \iota$ be given. Let $k3\_euclid\_5 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_numbers) \Rightarrow ((k1\_euclid\_5\ (k4\_euclid\_5\ X0\ X1\ X2) = X0) \wedge ((k2\_euclid\_5\ (k4\_euclid\_5\ X0\ X1\ X2) = X1) \wedge (k3\_euclid\_5\ (k4\_euclid\_5\ X0\ X1\ X2) = X2))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow (k5\_algstr\_0\ (k15\_euclid\ np\_\_3)\ X0\ X1 = k4\_euclid\_5\ (k9\_real\_1\ (k1\_euclid\_5\ X0)\ (k1\_euclid\_5\ X1))\ (k9\_real\_1\ (k2\_euclid\_5\ X0)\ (k2\_euclid\_5\ X1))\ (k9\_real\_1\ (k3\_euclid\_5\ X0)\ (k3\_euclid\_5\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_xreal\_0\ X0) \wedge ((v1\_xreal\_0\ X1) \wedge (v1\_xreal\_0\ X2))) \Rightarrow (m1\_subset\_1\ (k4\_euclid\_5\ X0\ X1\ X2)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \tag{4}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k1\_numbers) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ k1\_numbers) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ k1\_numbers) \Rightarrow (k5\_algstr\_0\ (k15\_euclid\ np\_\_3)\ (k4\_euclid\_5\ X0\ X1\ X2)\ (k4\_euclid\_5\ X3\ X4\ X5) = k4\_euclid\_5\ (k9\_real\_1\ X0\ X3)\ (k9\_real\_1\ X1\ X4)\ (k9\_real\_1\ X2\ X5)))))))$$