

t13\_euclid\_6 (TMTqqjp-  
LEy3pkxZgHcnZe9MeWBvJuyLzDFw)

October 27, 2020

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  $np\_2 : \iota$  be given. Let  $k1\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_euclid\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k32\_sin\_cos : \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k31\_sin\_cos : \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & ((X0 \in k1\_rltopsp1 (k15\_euclid np\_2) X1 X2) \Rightarrow ((X0 = X1) \vee ((X0 = X2) \vee \\
 & (k4\_euclid\_3 X1 X0 X2 = k32\_sin\_cos))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & ((k7\_real\_1 (k4\_euclid\_3 X0 X1 X2) (k4\_euclid\_3 X2 X1 X3) = k4\_euclid\_3 \\
 & X0 X1 X3) \vee (k7\_real\_1 (k4\_euclid\_3 X0 X1 X2) (k4\_euclid\_3 X2 X1 X3) = \\
 & k7\_real\_1 (k4\_euclid\_3 X0 X1 X3) (k8\_real\_1 np\_2 k32\_sin\_cos))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k3\_xcmplx\_0 np\_1 X0 = X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_xcmplx\_0 X0)\wedge((v1\_xcmplx\_0 X1)\wedge(v1\_xcmplx\_0 X2)))\Rightarrow(k3\_xcmplx\_0 (k2\_xcmplx\_0 X0 X1) X2 = k2\_xcmplx\_0 (k3\_xcmplx\_0 X0 X2) (k3\_xcmplx\_0 X1 X2)) \quad (4)$$

Assume the following.

$$((v2\_xxreal\_0 np\_3)\wedge(m2\_subset\_1 np\_3 k1\_numbers k5\_numbers))\wedge((m1\_subset\_1 np\_3 k5\_numbers)\wedge(m1\_subset\_1 np\_3 k1\_numbers)) \quad (5)$$

Assume the following.

$$((v2\_xxreal\_0 np\_2)\wedge(m2\_subset\_1 np\_2 k1\_numbers k5\_numbers))\wedge((m1\_subset\_1 np\_2 k5\_numbers)\wedge(m1\_subset\_1 np\_2 k1\_numbers)) \quad (6)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1)\wedge(m2\_subset\_1 np\_1 k1\_numbers k5\_numbers))\wedge((m1\_subset\_1 np\_1 k5\_numbers)\wedge(m1\_subset\_1 np\_1 k1\_numbers)) \quad (7)$$

Assume the following.

$$k2\_xcmplx\_0 np\_1 np\_2 = np\_3 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers)\wedge(v1\_xreal\_0 X1))\Rightarrow(k8\_real\_1 X0 X1 = k3\_xcmplx\_0 X0 X1) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers)\wedge(v1\_xreal\_0 X1))\Rightarrow(k7\_real\_1 X0 X1 = k2\_xcmplx\_0 X0 X1) \quad (10)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (11)$$

Assume the following.

$$k32\_sin\_cos = k31\_sin\_cos \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0)\wedge(v1\_xreal\_0 X1))\Rightarrow(v1\_xreal\_0 (k3\_xcmplx\_0 X0 X1)) \quad (13)$$

Assume the following.

$$v6\_membered k4\_ordinal1 \quad (14)$$

Assume the following.

$$v3\_membered\ k1\_numbers \quad (15)$$

Assume the following.

$$m1\_subset\_1\ k32\_sin\_cos\ k1\_numbers \quad (16)$$

Assume the following.

$$v1\_xreal\_0\ k31\_sin\_cos \quad (17)$$

Assume the following.

$$\forall X0.(v3\_membered\ X0) \Rightarrow (v1\_membered\ X0) \quad (18)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_xcmplx\_0\ X0) \quad (19)$$

Assume the following.

$$\forall X0.(v6\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v7\_ordinal1\ X1)) \quad (20)$$

Assume the following.

$$\forall X0.(v3\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v1\_xreal\_0\ X1)) \quad (21)$$

Assume the following.

$$\forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v1\_xcmplx\_0\ X1)) \quad (22)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_2))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_2))) \Rightarrow \\ & (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k15\_euclid\ np\_2))) \Rightarrow \\ & (\neg(X0 \in k1\_rttopsp1\ (k15\_euclid\ np\_2)\ X1\ X2) \wedge ((X0 \neq X1) \wedge ((X0 \neq X2) \wedge \\ & ((k7\_real\_1\ (k4\_euclid\_3\ X1\ X0\ X3)\ (k4\_euclid\_3\ X3\ X0\ X2) \neq k32\_sin\_cos) \wedge \\ & (k7\_real\_1\ (k4\_euclid\_3\ X1\ X0\ X3)\ (k4\_euclid\_3\ X3\ X0\ X2) \neq k8\_real\_1 \\ & \quad np\_3\ k32\_sin\_cos)))))))))) \end{aligned}$$