

t6\_menelaus (TMb-  
grSQRggzM98hdDtjYnHkBQHEAASR9Q1t)

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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  $k1\_numbers : \iota$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k11\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v5\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & ((k17\_euclid (k5\_algstr\_0 (k15\_euclid np\_2) X0 X1) = k9\_real\_1 \\ & (k17\_euclid X0) (k17\_euclid X1)) \wedge (k18\_euclid (k5\_algstr\_0 (k15\_euclid \\ & np\_2) X0 X1) = k9\_real\_1 (k18\_euclid X0) (k18\_euclid X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 k1\_numbers) \Rightarrow ((k17\_euclid (k1\_rlvect\_1 \\ & (k15\_euclid np\_2) X0 X1) = k11\_binop\_2 X1 (k17\_euclid X0)) \wedge (k18\_euclid \\ & (k1\_rlvect\_1 (k15\_euclid np\_2) X0 X1) = k11\_binop\_2 X1 (k18\_euclid \\ & X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2\_xreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers) \wedge (v1\_xreal\_0 \\ & X1)) \Rightarrow (k9\_real\_1 X0 X1 = k6\_xcmplx\_0 X0 X1) \end{aligned} \quad (4)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0)\wedge(v1\_xreal\_0 X1))\Rightarrow(k10\_binop\_2 X0 X1 = k6\_xcmplx\_0 X0 X1) \quad (6)$$

Assume the following.

$$v6\_membered k4\_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow((\neg v2\_struct\_0 (k15\_euclid X0))\wedge (v5\_rltopsp1 (k15\_euclid X0))) \quad (8)$$

Assume the following.

$$\forall X0.(l1\_rltopsp1 X0)\Rightarrow((l1\_rlvect\_1 X0)\wedge(l1\_pre\_topc X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0)\wedge(l1\_rlvect\_1 X0))\wedge((m1\_subset\_1 X1 (u1\_struct\_0 X0))\wedge(v1\_xreal\_0 X2)))\Rightarrow(m1\_subset\_1 (k1\_rlvect\_1 X0 X1 X2) (u1\_struct\_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2)))\Rightarrow(m1\_subset\_1 (k18\_euclid X0) k1\_numbers) \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2)))\Rightarrow(m1\_subset\_1 (k17\_euclid X0) k1\_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow((v5\_rltopsp1 (k15\_euclid X0))\wedge (l1\_rltopsp1 (k15\_euclid X0))) \quad (13)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers)\Rightarrow(v1\_xreal\_0 X0) \quad (14)$$

Assume the following.

$$\forall X0.(v6\_membered X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 X0)\Rightarrow(v7\_ordinal1 X1)) \quad (15)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 k1\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1 \\ & X3 k1\_numbers) \Rightarrow ((k17\_euclid (k5\_algstr\_0 (k15\_euclid np\_2) \\ & (k1\_rlvect\_1 (k15\_euclid np\_2) X0 X2) (k1\_rlvect\_1 (k15\_euclid \\ np\_2) X1 X3)) = k10\_binop\_2 (k11\_binop\_2 X2 (k17\_euclid X0)) (k11\_binop\_2 \\ & X3 (k17\_euclid X1))) \wedge (k18\_euclid (k5\_algstr\_0 (k15\_euclid np\_2) \\ & (k1\_rlvect\_1 (k15\_euclid np\_2) X0 X2) (k1\_rlvect\_1 (k15\_euclid \\ np\_2) X1 X3)) = k10\_binop\_2 (k11\_binop\_2 X2 (k18\_euclid X0)) (k11\_binop\_2 \\ & X3 (k18\_euclid X1))))))) \end{aligned}$$