

## t15\_menelaus

(TMTfreBfP8GJ4yb7rm7C5XSSY46KvvK9oGD)

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  $r1\_euclid\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_numbers : \iota$  be given. Let  $k4\_complex2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k32\_sin\_cos : \iota$  be given. Let  $r1\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_euclid\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_euclid : \iota \Rightarrow \iota$  be given. Let  $k2\_euclid\_3 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k2\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 k2\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k2\_numbers) \Rightarrow ((k4\_complex2 \\ & X0 X1 X2 = k32\_sin\_cos) \Rightarrow (k4\_complex2 X2 X1 X0 = k32\_sin\_cos)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & ((\neg r1\_euclid\_6 X0 X1 X2) \Leftrightarrow ((r1\_zfmisc\_1 X0 X1 X2) \wedge ((k4\_euclid\_3 \\ & X0 X1 X2 \neq k32\_sin\_cos) \wedge ((k4\_euclid\_3 X1 X2 X0 \neq k32\_sin\_cos) \wedge (k4\_euclid\_3 \\ & X2 X0 X1 \neq k32\_sin\_cos)))))) \end{aligned} \quad (2)$$

Assume the following.

$$u1\_struct\_0 (k15\_euclid np\_2) = k1\_euclid np\_2 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (m1\_subset\_1 (k2\_euclid\_3 X0) k2\_numbers) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(r1\_zfmisc\_1 X0 X1 X2) \Leftrightarrow ((X0 \neq \\ & X1) \wedge ((X0 \neq X2) \wedge (X1 \neq X2))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (k4\_euclid\_3 X0 X1 X2 = k4\_complex2 (k2\_euclid\_3 X0) (k2\_euclid\_3 \\
& X1) (k2\_euclid\_3 X2)))) \tag{6}
\end{aligned}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& ((\neg r1\_euclid\_6 X0 X1 X2) \Rightarrow ((\neg r1\_euclid\_6 X0 X2 X1) \wedge ((\neg r1\_euclid\_6 \\
& X1 X0 X2) \wedge ((\neg r1\_euclid\_6 X1 X2 X0) \wedge ((\neg r1\_euclid\_6 X2 X0 X1) \wedge (\neg r1\_euclid\_6 \\
& X2 X1 X0))))))))
\end{aligned}$$