

## t27\_euclid\_5

(TMRquPYx1PNdR6LyFjkUDe6jr55YRikVSLi)

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  $np\_3 : \iota$  be given. Let  $k3\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  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  $k4\_euclid\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_3))) \Rightarrow \\ & (X0 = k4\_euclid\_5 (k1\_euclid\_5 X0) (k2\_euclid\_5 X0) (k3\_euclid\_5 \\ & \quad X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1\_xreal\_0 X0) \wedge ((v1\_xreal\_0 \\ & X1) \wedge (v1\_xreal\_0 X2))) \Rightarrow (k4\_euclid\_5 X0 X1 X2 = k11\_finseq\_1 X0 X1 \\ & \quad X2) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((-v1\_xboole\_0 X0) \wedge \\ & ((m1\_subset\_1 X1 X0) \wedge ((m1\_subset\_1 X2 X0) \wedge (m1\_subset\_1 X3 X0)))) \Rightarrow \\ & (k3\_finseq\_4 X0 X1 X2 X3 = k11\_finseq\_1 X1 X2 X3) \end{aligned} \quad (3)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_numbers \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_3))) \Rightarrow \\ & (m1\_subset\_1 (k3\_euclid\_5 X0) k1\_numbers) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_3))) \Rightarrow \\ & (m1\_subset\_1 (k2\_euclid\_5 X0) k1\_numbers) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_3))) \Rightarrow (m1\_subset\_1 (k1\_euclid\_5 X0) k1\_numbers) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (8)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_3))) \Rightarrow (X0 = k3\_finseq\_4 k1\_numbers (k1\_euclid\_5 X0) (k2\_euclid\_5 X0) (k3\_euclid\_5 X0))$$