

# t69\_euclid (TMZBtd- dQcDvM7K8AE3CxKPPzhL8khdk5xSC)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. 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  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v3\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k45\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k8\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v3\_valued\_0 X0) \wedge (v1\_finseq\_1 X0)))) \wedge ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v3\_valued\_0 X1) \wedge (v1\_finseq\_1 X1)))) \Rightarrow (k8\_rvsum\_1 X0 X1 = k45\_valued\_1 X0 X1) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((v7\_ordinal1 X0) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid X0))) \wedge ((m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid X0))) \wedge ((v1\_relat\_1 X3) \wedge ((v1\_funct\_1 X3) \wedge ((v1\_finseq\_1 X3) \wedge (v3\_valued\_0 X3)))) \wedge ((v1\_relat\_1 X4) \wedge ((v1\_funct\_1 X4) \wedge ((v1\_finseq\_1 X4) \wedge (v3\_valued\_0 X4)))))))) \Rightarrow \\ & (((X1 = X3) \wedge (X2 = X4)) \Rightarrow (k5\_algstr\_0 (k15\_euclid X0) X1 X2 = k8\_rvsum\_1 X3 X4)) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow (v1\_finseq\_1 X1)) \tag{3}$$

## Theorem 1

$$\begin{aligned} & \forall X0. (v7\_ordinal1 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow (\forall X3. ((v1\_relat\_1 X3) \wedge ((v1\_funct\_1 X3) \wedge (v3\_valued\_0 X3))) \Rightarrow (\forall X4. ((v1\_relat\_1 X4) \wedge ((v1\_funct\_1 X4) \wedge (v3\_valued\_0 X4))) \Rightarrow (((X1 = X3) \wedge (X2 = X4)) \Rightarrow (k5\_algstr\_0 (k15\_euclid X0) X1 X2 = k45\_valued\_1 X3 X4)))))) \end{aligned}$$