# t35_euclid_5 (TMLE3JpNV4A9uHYs41Wr2T2DLYA5CVT9pnc)

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 $k6\_euclid\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_euclid\_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1\_numbers : \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{gathered}\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow \\ (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow \\ (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow \\ (k6\_euclid\_5\ X0\ X1\ X2 = k6\_euclid\_5\ X2\ X0\ X1)))\end{gathered} \tag{1}$$

Assume the following.

$$\begin{gathered}\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow \\ (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow \\ (k23\_rvsum\_1\ X0\ X1 = k7\_real\_1\ (k7\_real\_1\ (k8\_real\_1\ (k1\_euclid\_5 \\ X0)\ (k1\_euclid\_5\ X1))\ (k8\_real\_1\ (k2\_euclid\_5\ X0)\ (k2\_euclid\_5 \\ X1)))\ (k8\_real\_1\ (k3\_euclid\_5\ X0)\ (k3\_euclid\_5\ X1))))\end{gathered} \tag{2}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.((m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid \\ np\_\_3))) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))) \Rightarrow \\ (m1\_subset\_1\ (k5\_euclid\_5\ X0\ X1)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))\end{gathered} \tag{3}$$

Assume the following.

$$\begin{gathered}\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow \\ (m1\_subset\_1\ (k3\_euclid\_5\ X0)\ k1\_numbers)\end{gathered} \tag{4}$$

Assume the following.

$$\begin{gathered}\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3))) \Rightarrow \\ (m1\_subset\_1\ (k2\_euclid\_5\ X0)\ k1\_numbers)\end{gathered} \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))\Rightarrow (m1\_subset\_1\ (k1\_euclid\_5\ X0)\ k1\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))\Rightarrow (k6\_euclid\_5\ X0\ X1\ X2 = k23\_rvsum\_1\ X0\ (k5\_euclid\_5\ X1\ X2)))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_numbers)\wedge(v1\_xreal\_0\ X1))\Rightarrow(k8\_real\_1\ X0\ X1 = k8\_real\_1\ X1\ X0) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{9}$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_3)))\Rightarrow (k6\_euclid\_5\ X0\ X1\ X2 = k23\_rvsum\_1\ (k5\_euclid\_5\ X0\ X1)\ X2)))$$