t27_sprect_1 (TMExJS9pZCf6HfQfzwHtyh9vDs4i2Mf57qP)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v2\_compts\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k11\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k12\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k17\_euclid : \iota \Rightarrow \iota$ be given. Let $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18\_euclid : \iota \Rightarrow \iota$ be given. Let $k20\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k21\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k6\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k8\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((k17\_euclid\ (k19\_euclid\ X0\ X1) = X0) \wedge (k18\_euclid\ (k19\_euclid\ X0\ X1) = X1))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))) \Rightarrow ((k18\_euclid\ (k11\_pscomp\_1\ X0) = k18\_euclid\ (k20\_pscomp\_1\ X0)) \wedge ((k18\_euclid\ (k11\_pscomp\_1\ X0) = k18\_euclid\ (k21\_pscomp\_1\ X0)) \wedge ((k18\_euclid\ (k20\_pscomp\_1\ X0) = k18\_euclid\ (k21\_pscomp\_1\ X0)) \wedge ((k18\_euclid\ (k20\_pscomp\_1\ X0) = k18\_euclid\ (k12\_pscomp\_1\ X0)) \wedge (k18\_euclid\ (k21\_pscomp\_1\ X0) = k18\_euclid\ (k12\_pscomp\_1\ X0)))))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow (k9\_subset\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ X0\ (k19\_euclid\ (k17\_euclid\ X0)\ (k18\_euclid\ X1)))\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ (k19\_euclid\ (k17\_euclid\ X0)\ (k18\_euclid\ X1))\ X1) = k1\_tarski\ (k19\_euclid\ (k17\_euclid\ X0)\ (k18\_euclid\ X1)))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_compts\_1\ X0\ (k15\_euclid\ np\_\_2))\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))\Rightarrow (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ (k10\_pscomp\_1\ X0)\ (k11\_pscomp\_1\ X0) = ReplSep\ (toset\ (\lambda X1 : \iota.m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\ (\lambda X1 : \iota.(k17\_euclid\ X1 = k6\_pscomp\_1\ X0)\wedge((r1\_xxreal\_0\ (k18\_euclid\ X1)\ (k7\_pscomp\_1\ X0))\wedge(r1\_xxreal\_0\ (k9\_pscomp\_1\ X0)\ (k18\_euclid\ X1))))\ (\lambda X1 : \iota.X1)) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_compts\_1\ X0\ (k15\_euclid\ np\_\_2))\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))\Rightarrow (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ (k11\_pscomp\_1\ X0)\ (k12\_pscomp\_1\ X0) = ReplSep\ (toset\ (\lambda X1 : \iota.m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\ (\lambda X1 : \iota.(r1\_xxreal\_0\ (k17\_euclid\ X1)\ (k8\_pscomp\_1\ X0))\wedge((r1\_xxreal\_0\ (k6\_pscomp\_1\ X0)\ (k17\_euclid\ X1))\wedge(k18\_euclid\ X1 = k7\_pscomp\_1\ X0)))\ (\lambda X1 : \iota.X1)) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow (m1\_subset\_1\ (k9\_pscomp\_1\ X0)\ k1\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow (m1\_subset\_1\ (k8\_pscomp\_1\ X0)\ k1\_numbers) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow (m1\_subset\_1\ (k7\_pscomp\_1\ X0)\ k1\_numbers) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow (m1\_subset\_1\ (k6\_pscomp\_1\ X0)\ k1\_numbers) \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(m1\_subset\_1\ (k12\_pscomp\_1\ X0)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(m1\_subset\_1\ (k10\_pscomp\_1\ X0)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \tag{11}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(k12\_pscomp\_1\ X0 = k19\_euclid\ (k8\_pscomp\_1\ X0)\ (k7\_pscomp\_1\ X0)) \tag{12}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(k11\_pscomp\_1\ X0 = k19\_euclid\ (k6\_pscomp\_1\ X0)\ (k7\_pscomp\_1\ X0)) \tag{13}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(k10\_pscomp\_1\ X0 = k19\_euclid\ (k6\_pscomp\_1\ X0)\ (k9\_pscomp\_1\ X0)) \tag{14}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{15}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_compts\_1\ X0\ (k15\_euclid\ np\_\_2))\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))\Rightarrow(k9\_subset\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ (k10\_pscomp\_1\ X0)\ (k11\_pscomp\_1\ X0))\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ (k11\_pscomp\_1\ X0)\ (k12\_pscomp\_1\ X0)) = k1\_tarski\ (k11\_pscomp\_1\ X0))$$