

## t28\_sprect\_1

(TMT3hAgqJZCXe67cumxNY2xfcTKNFaDhxHz)

October 27, 2020

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  $k11\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k12\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k13\_pscomp\_1 : \iota \Rightarrow \iota$  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  $k23\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k22\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

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

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (((k17\_euclid (k13\_pscomp\_1 X0) = k17\_euclid (k23\_pscomp\_1 X0)) \wedge ((k17\_euclid (k13\_pscomp\_1 X0) = k17\_euclid (k22\_pscomp\_1 X0)) \wedge ((k17\_euclid (k23\_pscomp\_1 X0) = k17\_euclid (k22\_pscomp\_1 X0)) \wedge ((k17\_euclid (k23\_pscomp\_1 X0) = k17\_euclid (k12\_pscomp\_1 X0)) \wedge (k17\_euclid (k22\_pscomp\_1 X0) = k17\_euclid (k12\_pscomp\_1 X0))))))) \quad (2)$$

Assume the following.

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

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v2\_compts\_1 X0 (k15\_euclid np\_2)) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow \\
& (k1\_rltopsp1 (k15\_euclid np\_2) (k11\_pscomp\_1 X0) (k12\_pscomp\_1 \\
& X0) = ReplSep (toset (\lambda X1 : \iota.m1\_subset\_1 X1 (u1\_struct\_0 ( \\
& k15\_euclid np\_2)))) (\lambda X1 : \iota.(r1\_xxreal\_0 (k17\_euclid X1) \\
& (k8\_pscomp\_1 X0)) \wedge ((r1\_xxreal\_0 (k6\_pscomp\_1 X0) (k17\_euclid \\
& X1)) \wedge (k18\_euclid X1 = k7\_pscomp\_1 X0))) (\lambda X1 : \iota.X1))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k9\_pscomp\_1 X0) k1\_numbers) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k8\_pscomp\_1 X0) k1\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k7\_pscomp\_1 X0) k1\_numbers) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k6\_pscomp\_1 X0) k1\_numbers) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k13\_pscomp\_1 X0) (u1\_struct\_0 (k15\_euclid np\_2))) \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k11\_pscomp\_1 X0) (u1\_struct\_0 (k15\_euclid np\_2))) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k13\_pscomp\_1 X0 = k19\_euclid (k8\_pscomp\_1 X0) (k9\_pscomp\_1 X0)) \quad (11)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (14)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v2\_compts\_1 X0 (k15\_euclid np\_2)) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow \\ & (k9\_subset\_1 (u1\_struct\_0 (k15\_euclid np\_2)) (k1\_rltopsp1 ( \\ & k15\_euclid np\_2) (k11\_pscomp\_1 X0) (k12\_pscomp\_1 X0)) (k1\_rltopsp1 \\ & (k15\_euclid np\_2) (k12\_pscomp\_1 X0) (k13\_pscomp\_1 X0)) = k1\_tarski \\ & (k12\_pscomp\_1 X0)) \end{aligned}$$