

# t15\_sprect\_3 (TM- NxKLFy7GemPguSeXqM25gXmTvAEurAYtc)

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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  $k20\_pscomp\_1 : \iota \Rightarrow \iota$  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  $k15\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k21\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_compts\_1 X0 (k15\_euclid np\_2)) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow \\ & ((k20\_pscomp\_1 X0 \in k15\_pscomp\_1 X0) \wedge (k21\_pscomp\_1 X0 \in k15\_pscomp\_1 \\ & X0)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_compts\_1 X0 (k15\_euclid np\_2)) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow \\ & (r1\_tarski (k1\_rltopsp1 (k15\_euclid np\_2) (k20\_pscomp\_1 X0) \\ & (k21\_pscomp\_1 X0)) (k1\_rltopsp1 (k15\_euclid np\_2) (k11\_pscomp\_1 \\ & X0) (k12\_pscomp\_1 X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_compts\_1 X0 (k15\_euclid np\_2)) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow \\ & (r1\_tarski (k15\_pscomp\_1 X0) (k1\_rltopsp1 (k15\_euclid np\_2) \\ & (k20\_pscomp\_1 X0) (k21\_pscomp\_1 X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{4}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_compts\_1 X0 (k15\_euclid np\_2)) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow \\ & (k20\_pscomp\_1 X0 \in k1\_rltopsp1 (k15\_euclid np\_2) (k11\_pscomp\_1 \\ & X0) (k12\_pscomp\_1 X0)) \end{aligned}$$