

# t67\_pscomp\_1

(TMNbVhEzs7bcd5b73cpRU4psoUu3j91S8fm)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  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  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $v2\_compts\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v1\_pscomp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_pscomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_pscomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v6\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v7\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v8\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $k4\_pscomp\_1 : \iota$  be given. Let  $l1\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc \\
 & X0))) \Rightarrow (\forall X1. ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
 & (u1\_struct\_0 X0)))) \Rightarrow (\forall X2. ((v2\_compts\_1 X2 X0) \wedge (m1\_subset\_1 \\
 & X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (\forall X3. ((v1\_funct\_1 \\
 & X3) \wedge ((v1\_funct\_2 X3 (u1\_struct\_0 X0) k1\_numbers) \wedge ((v1\_pscomp\_1 \\
 & X3 X0) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\
 & X0) k1\_numbers)))))) \Rightarrow ((r1\_tarski X1 X2) \Rightarrow (r1\_xxreal\_0 (k2\_pscomp\_1 \\
 & (k1\_pre\_topc X0 X1) (k3\_pscomp\_1 X0 X3 X1)) (k2\_pscomp\_1 (k1\_pre\_topc \\
 & X0 X2) (k3\_pscomp\_1 X0 X3 X2))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & ((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \\
 & ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers))
 \end{aligned} \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow & ((v2\_pre\_topc (k15\_euclid X0)) \wedge \\ & ((v13\_algstr\_0 (k15\_euclid X0)) \wedge ((v2\_rlvect\_1 (k15\_euclid X0)) \wedge \\ & ((v3\_rlvect\_1 (k15\_euclid X0)) \wedge ((v4\_rlvect\_1 (k15\_euclid X0)) \wedge \\ & ((v5\_rlvect\_1 (k15\_euclid X0)) \wedge ((v6\_rlvect\_1 (k15\_euclid X0)) \wedge \\ & ((v7\_rlvect\_1 (k15\_euclid X0)) \wedge ((v8\_rlvect\_1 (k15\_euclid X0)) \wedge \\ & (v5\_rltopsp1 (k15\_euclid X0)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((\neg v2\_struct\_0 (k15\_euclid X0)) \wedge (v5\_rltopsp1 (k15\_euclid X0))) \quad (5)$$

Assume the following.

$$(v1\_funct\_1 k4\_pscomp\_1) \wedge ((v1\_funct\_2 k4\_pscomp\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k1\_numbers) \wedge (v1\_pscomp\_1 k4\_pscomp\_1 (k15\_euclid np\_2))) \quad (6)$$

Assume the following.

$$\forall X0.(l1\_rltopsp1 X0) \Rightarrow ((l1\_rlvect\_1 X0) \wedge (l1\_pre\_topc X0)) \quad (7)$$

Assume the following.

$$(v1\_funct\_1 k4\_pscomp\_1) \wedge ((v1\_funct\_2 k4\_pscomp\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k1\_numbers) \wedge (m1\_subset\_1 k4\_pscomp\_1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)) k1\_numbers)))) \quad (8)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((v5\_rltopsp1 (k15\_euclid X0)) \wedge (l1\_rltopsp1 (k15\_euclid X0))) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k8\_pscomp\_1 X0 = k2\_pscomp\_1 (k1\_pre\_topc (k15\_euclid np\_2) X0) (k3\_pscomp\_1 (k15\_euclid np\_2) k4\_pscomp\_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (11)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 ( \\ u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (\forall X1.((v2\_compts\_1 \\ X1 (k15\_euclid np\_2) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ (k15\_euclid np\_2)))))) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (r1\_xxreal\_0 (k8\_pscomp\_1 \\ X0) (k8\_pscomp\_1 X1)))) \end{aligned}$$