

t53\_pscomp\_1  
(TMTfruQ8GoKcKP2vyuiW4sbKYSEkwanrfv6)

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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  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $k10\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k25\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k24\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k13\_pscomp\_1 : \iota \Rightarrow \iota$  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  $k9\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k8\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k17\_pscomp\_1 : \iota \Rightarrow \iota$  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  $k4\_pscomp\_1 : \iota$  be given. Let  $k1\_pscomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k9\_pscomp\_1 X0) k1\_numbers) \quad (2)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k8\_pscomp\_1 X0) k1\_numbers) \quad (3)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k6\_pscomp\_1 X0) k1\_numbers) \quad (4)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k17\_pscomp\_1 X0) (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \quad (5)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k8\_pscomp\_1 X0 = k2\_pscomp\_1 (k1\_pre\_topc (k15\_euclid np\_2) X0) (k3\_pscomp\_1 (k15\_euclid np\_2) k4\_pscomp\_1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k6\_pscomp\_1 X0 = k1\_pscomp\_1 (k1\_pre\_topc (k15\_euclid np\_2) X0) (k3\_pscomp\_1 (k15\_euclid np\_2) k4\_pscomp\_1 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k25\_pscomp\_1 X0 = k19\_euclid (k1\_pscomp\_1 (k1\_pre\_topc (k15\_euclid np\_2) (k17\_pscomp\_1 X0)) (k3\_pscomp\_1 (k15\_euclid np\_2) k4\_pscomp\_1 (k17\_pscomp\_1 X0))) (k9\_pscomp\_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k24\_pscomp\_1 X0 = k19\_euclid (k2\_pscomp\_1 (k1\_pre\_topc (k15\_euclid np\_2) (k17\_pscomp\_1 X0)) (k3\_pscomp\_1 (k15\_euclid np\_2) k4\_pscomp\_1 (k17\_pscomp\_1 X0))) (k9\_pscomp\_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k13\_pscomp\_1 X0 = k19\_euclid (k8\_pscomp\_1 X0) (k9\_pscomp\_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (k10\_pscomp\_1 X0 = k19\_euclid (k6\_pscomp\_1 X0) (k9\_pscomp\_1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (12)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (((k18\_euclid (k10\_pscomp\_1 X0) = k18\_euclid (k25\_pscomp\_1 X0)) \wedge ((k18\_euclid (k10\_pscomp\_1 X0) = k18\_euclid (k24\_pscomp\_1 X0)) \wedge ((k18\_euclid (k25\_pscomp\_1 X0) = k18\_euclid (k24\_pscomp\_1 X0)) \wedge ((k18\_euclid (k25\_pscomp\_1 X0) = k18\_euclid (k13\_pscomp\_1 X0)) \wedge (k18\_euclid (k24\_pscomp\_1 X0) = k18\_euclid (k13\_pscomp\_1 X0))))))$$