

t43\_pcs\_0  
(TMKXTUfZ2jC6BvJ5FMamxcwZhaxp6Wt8PYj)

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Let  $l1\_pcs\_0 : \iota \Rightarrow o$  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  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k24\_pcs\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_pcs\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_pcs\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (l1\_pcs\_0 X0) \Rightarrow (m1\_subset\_1 (k24\_pcs\_0 X0 X1) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X1))) \quad (2)$$

Assume the following.

$$\forall X0. (l1\_pcs\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_pcs\_0 X0 X1 X2) \Leftrightarrow (k4\_tarski X1 X2 \in u1\_pcs\_0 X0)))) \quad (3)$$

Assume the following.

$$\forall X0. (l1\_pcs\_0 X0) \Rightarrow (\forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X1))) \Rightarrow ((X2 = k24\_pcs\_0 X0 X1) \Leftrightarrow (\forall X3. \forall X4. (k4\_tarski X3 X4 \in X2) \Leftrightarrow ((X3 \in X1) \wedge ((X4 \in X1) \wedge (\forall X5. \forall X6. ((X5 \in X3) \wedge (X6 \in X4)) \Rightarrow (k4\_tarski X5 X6 \in u1\_pcs\_0 X0))))))) \quad (4)$$

**Theorem 1**

$$\forall X0. (l1\_pcs\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (\forall X2. \forall X3. (k4\_tarski X2 X3 \in k24\_pcs\_0 X0 X1) \Leftrightarrow ((X2 \in X1) \wedge ((X3 \in X1) \wedge (\forall X4. (m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow (\forall X5. (m1\_subset\_1 X5 (u1\_struct\_0 X0)) \Rightarrow (((X4 \in X2) \wedge (X5 \in X3)) \Rightarrow (r1\_pcs\_0 X0 X4 X5))))))))))$$