

t4\_compos\_1  
(TMF3TZ6D89kvbHnAkJquimGGGXi9nmEXBkT)

October 27, 2020

Let  $l1\_compos\_1 : \iota \Rightarrow o$  be given. Let  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_compos\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_zfmisc\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_compos\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_afinsq\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge (v1\_zfmisc\_1 X0)) \Rightarrow (\exists X1. (m1\_subset\_1 X1 X0) \wedge (X0 = k1\_tarski X1)) \quad (1)$$

Assume the following.

$$\forall X0. k1\_card\_1 (k1\_tarski X0) = np\_1 \quad (2)$$

Assume the following.

$$\forall X0. (v1\_finset\_1 X0) \Rightarrow (k5\_card\_1 X0 = k1\_card\_1 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1\_compos\_1 X0) \Rightarrow & ((\neg v1\_xboole\_0 (k4\_compos\_1 X0)) \wedge \\ & ((v1\_zfmisc\_1 (k4\_compos\_1 X0)) \wedge (v1\_relat\_1 (k4\_compos\_1 X0)) \wedge \\ & ((v4\_relat\_1 (k4\_compos\_1 X0) k5\_numbers) \wedge (v5\_relat\_1 (k4\_compos\_1 \\ & X0) (u1\_compos\_1 X0)) \wedge (v1\_funct\_1 (k4\_compos\_1 X0)) \wedge ((v1\_finset\_1 \\ & (k4\_compos\_1 X0)) \wedge (v1\_afinsq\_1 (k4\_compos\_1 X0)))))) \quad (4) \end{aligned}$$

**Theorem 1**  $\forall X0. (l1\_compos\_1 X0) \Rightarrow (k5\_card\_1 (k4\_compos\_1 X0) = np\_1).$