

# t36\_compos\_1

## (TMHVjtTY1Vs7Eb8hyJGvsrqfNj5sKnHZgTq)

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Let  $l1\_compos\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  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  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_afinsq\_1 : \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k2\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $k10\_compos\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge (\neg v1\_xboole\_0 X0) \wedge (v1\_afinsq\_1 X0)))) \Rightarrow (k6\_numbers \in k9\_xtuple\_0 X0) \quad (1)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v5\_ordinal1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finset\_1 X0)))) \Rightarrow (k2\_afinsq\_1 X0 = k9\_xtuple\_0 X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_compos\_1 X0) \wedge ((v1\_relat\_1 X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v5\_relat\_1 X1 (u1\_compos\_1 X0)) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_afinsq\_1 X1))))))) \Rightarrow ((\neg v1\_xboole\_0 (k10\_compos\_1 X0 X1)) \wedge ((v1\_relat\_1 (k10\_compos\_1 X0 X1)) \wedge ((v4\_relat\_1 (k10\_compos\_1 X0 X1) k5\_numbers) \wedge ((v5\_relat\_1 (k10\_compos\_1 X0 X1) (u1\_compos\_1 X0)) \wedge ((v1\_funct\_1 (k10\_compos\_1 X0 X1)) \wedge ((v1\_finset\_1 (k10\_compos\_1 X0 X1)) \wedge (v1\_afinsq\_1 (k10\_compos\_1 X0 X1)))))))))) \quad (3)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_afinsq\_1 X0)))))) \Rightarrow ((v1\_relat\_1 X0) \wedge ((v5\_ordinal1 X0) \wedge (v1\_funct\_1 X0))) \quad (4)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(l1\_compos\_1 X0) \Rightarrow (\forall X1. ((\neg v1\_xboole\_0 X1) \wedge \\ ((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 k5\_numbers) \wedge (v5\_relat\_1 X1 \\ (u1\_compos\_1 X0)) \wedge (v1\_funct\_1 X1) \wedge (v1\_finset\_1 X1) \wedge (v1\_afinsq\_1 \\ X1)))))) \Rightarrow (k6\_numbers \in k2\_afinsq\_1 (k10\_compos\_1 X0 X1)) \end{aligned}$$