

## t2\_comseq\_1

(TMHkrcSBpJxFdYzBmfWt27xGyDtu52WoJaZ)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  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  $k5\_numbers : \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (((v1\_funct\_1 \\ X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k2\_numbers) \wedge (m1\_subset\_1 X0 ( \\ k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k2\_numbers)))))) \Leftrightarrow ((k9\_xtuple\_0 \\ X0 = k5\_numbers) \wedge (\forall X1. (X1 \in k5\_numbers) \Rightarrow (m1\_subset\_1 ( \\ k1\_funct\_1 X0 X1) k2\_numbers)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (4)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (5)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (6)$$

Assume the following.

$$\neg v1\_xboole\_0 \ k1\_numbers \quad (7)$$

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (8)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_relat\_1 \ X0) \wedge (v1\_funct\_1 \ X0)) \Rightarrow & (((v1\_funct\_1 \\ X0) \wedge ((v1\_funct\_2 \ X0 \ k5\_numbers \ k2\_numbers) \wedge & (m1\_subset\_1 \ X0 \ ( \\ k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ k5\_numbers \ k2\_numbers)))))) \Leftrightarrow & ((k9\_xtuple\_0 \\ X0 = k5\_numbers) \wedge (\forall X1.(m2\_subset\_1 \ X1 \ k1\_numbers \ k5\_numbers) \Rightarrow & \\ (m1\_subset\_1 \ (k1\_funct\_1 \ X0 \ X1) \ k2\_numbers)))) \end{aligned}$$