

# t23\_afinsq\_2 (TMPBAmLuWQ- VAzw4i6gqoBf84yKLZhPYbWxi)

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Let  $r1\_afinsq\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1\_xboole\_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0. k3\_xboole\_0 X0 \ k1\_xboole\_0 = k1\_xboole\_0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (r1\_xxreal\_0 X0 X0) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow (k9\_subset\_1 X0 X1 X2 = k3\_xboole\_0 X1 X2) \quad (6)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (7)$$

Assume the following.

$$v1\_xboole\_0 \ k1\_xboole\_0 \quad (8)$$

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(r1\_afinsq\_2 \ X0 \ X1) \Leftrightarrow (\forall X2.(v7\_ordinal1 \\ X2) \Rightarrow (\forall X3.(v7\_ordinal1 \ X3) \Rightarrow (\neg(X2 \in X0) \wedge ((X3 \in X1) \wedge (r1\_xxreal\_0 \\ X3 \ X2)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(X2 = k3\_xboole\_0 \ X0 \ X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0 \ X0 \ X1 = k3\_xboole\_0 \ X1 \ X0 \quad (12)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k4\_ordinal1) \Rightarrow (v7\_ordinal1 \ X0) \quad (13)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 \ X0) \Rightarrow (v1\_xxreal\_0 \ X0) \quad (14)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 \ X0) \Rightarrow (v1\_xxreal\_0 \ X0) \quad (15)$$

**Theorem 1**

$$\begin{aligned} \forall X0.\forall X1.(r1\_afinsq\_2 \ X0 \ X1) \Rightarrow (k9\_subset\_1 \ k1\_numbers \\ (k3\_xboole\_0 \ X0 \ X1) \ k5\_numbers = k1\_xboole\_0) \end{aligned}$$