

# t14\_supinf\_2 (TMEhUeYaH- jAJ6HNetveHGntmZTAa3VHaugd)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_numbers : \iota$  be given. Let  $k7\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $k6\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $k2\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $k8\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xxreal\_3 : \iota \Rightarrow \iota$  be given. Let  $m2\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $k1\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $k4\_member\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \Leftrightarrow (r1\_xxreal\_0 (k2\_xxreal\_3 X1) (k2\_xxreal\_3 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k7\_numbers))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k7\_numbers) \Rightarrow ((m2\_xxreal\_2 X1 X0) \Leftrightarrow (m1\_xxreal\_2 (k2\_supinf\_2 X1) (k6\_supinf\_2 X0)))) \quad (3)$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k7\_numbers))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k7\_numbers) \Rightarrow ((m1\_xxreal\_2 X1 X0) \Leftrightarrow (m2\_xxreal\_2 (k2\_supinf\_2 X1) (k6\_supinf\_2 X0)))) \quad (4)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (k8\_supinf\_2 X0 = k1\_xxreal\_2 X0) \quad (5)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (k7\_supinf\_2 X0 = k2\_xxreal\_2 X0) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k7\_numbers)) \Rightarrow (k6\_supinf\_2 X0 = k4\_member\_1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (k2\_supinf\_2 X0 = k2\_xxreal\_3 X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k7\_numbers)) \Rightarrow (k6\_supinf\_2 (k6\_supinf\_2 X0) = X0) \quad (9)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (k2\_xxreal\_3 (k2\_xxreal\_3 X0) = X0) \quad (10)$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge (v2\_membered X0)) \Rightarrow ((\neg v1\_xboole\_0 (k4\_member\_1 X0)) \wedge (v2\_membered (k4\_member\_1 X0))) \quad (11)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (m1\_subset\_1 (k8\_supinf\_2 X0) k7\_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (m1\_subset\_1 (k7\_supinf\_2 X0) k7\_numbers) \quad (13)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k7\_numbers)) \Rightarrow (m1\_subset\_1 (k6\_supinf\_2 X0) (k1\_zfmisc\_1 k7\_numbers)) \quad (14)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (v1\_xxreal\_0 (k2\_xxreal\_3 X0)) \quad (15)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (v1\_xxreal\_0 (k2\_xxreal\_2 X0)) \quad (16)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (v1\_xxreal\_0 (k1\_xxreal\_2 X0)) \quad (17)$$

Assume the following.

$$\forall X0.(v2\_membered\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((X1 = k2\_xreal\_2\ X0)\Leftrightarrow((m2\_xreal\_2\ X1\ X0)\wedge(\forall X2.(m2\_xreal\_2\ X2\ X0)\Rightarrow(r1\_xreal\_0\ X2\ X1)))))) \quad (18)$$

Assume the following.

$$\forall X0.(v2\_membered\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((X1 = k1\_xreal\_2\ X0)\Leftrightarrow((m1\_xreal\_2\ X1\ X0)\wedge(\forall X2.(m1\_xreal\_2\ X2\ X0)\Rightarrow(r1\_xreal\_0\ X1\ X2)))))) \quad (19)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k7\_numbers))\Rightarrow(v2\_membered\ X0) \quad (20)$$

**Theorem 1**

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k7\_numbers)))\Rightarrow(k7\_supinf\_2\ (k6\_supinf\_2\ X0) = k2\_supinf\_2\ (k8\_supinf\_2\ X0))$$