t13_supinf_2 (TMd19NpLM9SNeUCydW7rxALZ3rNGquYuqHt)

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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 $m2\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_supinf\_2 : \iota \Rightarrow \iota$ be given. Let $k6\_supinf\_2 : \iota \Rightarrow \iota$ be given. Let $k4\_member\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k7\_numbers))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k7\_numbers) \Rightarrow ((m1\_xxreal\_2\ X1\ X0) \Leftrightarrow (m2\_xxreal\_2\ (k2\_supinf\_2\ X1)\ (k6\_supinf\_2\ X0)))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k7\_numbers)) \Rightarrow (k6\_supinf\_2\ X0 = k4\_member\_1\ X0) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k7\_numbers)) \Rightarrow (k6\_supinf\_2\ (k6\_supinf\_2\ X0) = X0) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k7\_numbers) \Rightarrow (k2\_supinf\_2\ (k2\_supinf\_2\ X0) = X0) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v2\_membered\ X0)) \Rightarrow ((\neg v1\_xboole\_0\ (k4\_member\_1\ X0)) \wedge (v2\_membered\ (k4\_member\_1\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k7\_numbers)) \Rightarrow (m1\_subset\_1\ (k6\_supinf\_2\ X0)\ (k1\_zfmisc\_1\ k7\_numbers)) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k7\_numbers) \Rightarrow (m1\_subset\_1\ (k2\_supinf\_2\ X0)\ k7\_numbers) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k7\_numbers)) \Rightarrow (v2\_membered\ X0) \tag{8}$$

Theorem 1

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