# t13_mesfunc5 (TMPbhCaZWu8ZqB56jhi4BTc1panGTfHD5Z7)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_numbers : \iota$ be given. Let $v2\_mesfunc5 : \iota \Rightarrow o$ be given. Let $v4\_mesfunc5 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_supinf\_2 : \iota \Rightarrow \iota$ be given. Let $k3\_extreal1 : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k1\_xxreal\_0 : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k1\_supinf\_2 : \iota$ be given. Let $k1\_supinf\_1 : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v2\_membered : \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_mesfunc5 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k7\_numbers) \Rightarrow ((r1\_xxreal\_0\ (k2\_supinf\_2\ (k3\_extreal1\ X0))\ X0) \wedge (r1\_xxreal\_0\ X0\ (k3\_extreal1\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow ((r1\_xxreal\_0\ k1\_xxreal\_0\ X0) \Rightarrow (X0 = k1\_xxreal\_0)) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k7\_numbers) \Rightarrow (\neg (X0 \neq k6\_numbers) \wedge (r1\_xxreal\_0\ (k3\_extreal1\ X0)\ k6\_numbers)) \tag{4}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{5}$$

Assume the following.

$$k1\_supinf\_2 = k1\_xboole\_0 \tag{6}$$

Assume the following.

$$k1\_supinf\_1 = k1\_xxreal\_0 \tag{7}$$

Assume the following.

$$\exists X0.(v1\_xboole\_0\ X0)\wedge((v1\_xcmplx\_0\ X0)\wedge((v1\_xxreal\_0\ X0)\wedge(v1\_xreal\_0\ X0))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1\ (k2\_zfmisc\_1\ X0\ X1) \tag{9}$$

Assume the following.

$$\neg v1\_xreal\_0\ k1\_xxreal\_0 \tag{10}$$

Assume the following.

$$v2\_membered\ k7\_numbers \tag{11}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k7\_numbers)\Rightarrow(m1\_subset\_1\ (k3\_extreal1\ X0)\ k7\_numbers) \tag{12}$$

Assume the following.

$$m1\_subset\_1\ k1\_supinf\_1\ k7\_numbers \tag{13}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow((v4\_mesfunc5\ X0)\Leftrightarrow(\neg k1\_supinf\_1 \in k10\_xtuple\_0\ X0)) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow((v2\_mesfunc5\ X0)\Leftrightarrow(v1\_mesfunc5\ (k10\_xtuple\_0\ X0))) \tag{15}$$

Assume the following.

$$\forall X0.(v1\_mesfunc5\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ k7\_numbers)\Rightarrow((X1 \in X0)\Rightarrow(r1\_xxreal\_0\ X1\ k6\_numbers))) \tag{16}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_relat\_1\ X1)) \tag{17}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v1\_xxreal\_0\ X1)) \tag{18}$$

**Theorem 1**

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k7\_numbers))))\Rightarrow((v2\_mesfunc5\ X1)\Rightarrow(v4\_mesfunc5\ X1)))$$