t16_mesfun6c (TMQYfxFRVgx-PUA4KTmU43a3ZJCypdyYE6bj)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_numbers : \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_mesfun6c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $r1\_mesfunc6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_comseq\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_comseq\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_comseq\_3 : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_valued\_0 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_complex1 : \iota \Rightarrow \iota$ be given. Let $k3\_complex1 : \iota \Rightarrow \iota$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))) \Rightarrow (\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0)\ X1) \Rightarrow (\forall X4.(m2\_subset\_1\ X4\ (k1\_zfmisc\_1\ X0)\ X1) \Rightarrow ((k1\_relset\_1\ X0\ X2 = X3) \Rightarrow ((r1\_mesfunc6\ X0\ X1\ X2\ X4) \Leftrightarrow (r1\_mesfunc6\ X0\ X1\ X2\ (k5\_prob\_1\ X0\ X1\ X3\ X4)))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.(m1\_prob\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow(k6\_comseq\_3\ X0\ X1 = k4\_comseq\_3\ X1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\wedge((m1\_subset\_1\ X2\ X1)\wedge(m1\_subset\_1\ X3\ X1)))\Rightarrow(k5\_prob\_1\ X0\ X1\ X2\ X3 = k3\_xboole\_0\ X2\ X3) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow(k5\_comseq\_3\ X0\ X1 = k3\_comseq\_3\ X1) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge(v4\_relat\_1\ X1\ X0))\Rightarrow(k1\_relset\_1\ X0\ X1 = k9\_xtuple\_0\ X1) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow((v1\_relat\_1\ (k4\_comseq\_3\ X0))\wedge((v1\_funct\_1\ (k4\_comseq\_3\ X0))\wedge(v3\_valued\_0\ (k4\_comseq\_3\ X0)))) \tag{8}$$

Assume the following.

$$v1\_membered\ k2\_numbers \tag{9}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow((v1\_relat\_1\ (k3\_comseq\_3\ X0))\wedge((v1\_funct\_1\ (k3\_comseq\_3\ X0))\wedge(v3\_valued\_0\ (k3\_comseq\_3\ X0)))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow((v1\_funct\_1\ (k6\_comseq\_3\ X0\ X1))\wedge(m1\_subset\_1\ (k6\_comseq\_3\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\wedge((m1\_subset\_1\ X2\ X1)\wedge(m1\_subset\_1\ X3\ X1)))\Rightarrow(m1\_prob\_1\ (k5\_prob\_1\ X0\ X1\ X2\ X3)\ X0\ X1) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow((v1\_funct\_1\ (k5\_comseq\_3\ X0\ X1))\wedge(m1\_subset\_1\ (k5\_comseq\_3\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))) \tag{13}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow((X1 = k4\_comseq\_3\ X0)\Leftrightarrow((k9\_xtuple\_0\ X1 = k9\_xtuple\_0\ X0)\wedge(\forall X2.(X2 \in k9\_xtuple\_0\ X1)\Rightarrow(k1\_funct\_1\ X1\ X2 = k4\_complex1\ (k1\_funct\_1\ X0\ X2)))))) \tag{14}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow((X1 = k3\_comseq\_3\ X0)\Leftrightarrow((k9\_xtuple\_0\ X1 = k9\_xtuple\_0\ X0)\wedge(\forall X2.(X2 \in k9\_xtuple\_0\ X1)\Rightarrow(k1\_funct\_1\ X1\ X2 = k3\_complex1\ (k1\_funct\_1\ X0\ X2)))))) \tag{15}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow(\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0)\ X1)\Rightarrow((r1\_mesfun6c\ X0\ X1\ X2\ X3)\Leftrightarrow((r1\_mesfunc6\ X0\ X1\ (k5\_comseq\_3\ X0\ X2)\ X3)\wedge(r1\_mesfunc6\ X0\ X1\ (k6\_comseq\_3\ X0\ X2)\ X3)))))) \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((v4\_relat\_1\ X2\ X0)\wedge(v5\_relat\_1\ X2\ X1)) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{18}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_membered\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_valued\_0\ X2)) \tag{20}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow(\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0)\ X1)\Rightarrow(\forall X4.(m2\_subset\_1\ X4\ (k1\_zfmisc\_1\ X0)\ X1)\Rightarrow((k1\_relset\_1\ X0\ X2 = X3)\Rightarrow((r1\_mesfun6c\ X0\ X1\ X2\ X4)\Leftrightarrow(r1\_mesfun6c\ X0\ X1\ X2\ (k5\_prob\_1\ X0\ X1\ X3\ X4))))))))$$