t29_mesfunc1 (TMUHbDoXVhjjUNJyztPVeZNYpDjwe5jtvN2)

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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 $k7\_numbers : \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $r1\_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_measure6 : \iota \Rightarrow \iota$ be given. Let $v2\_finsub\_1 : \iota \Rightarrow o$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\neg(X0 \in X1) \wedge (v1\_xboole\_0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v2\_finsub\_1\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.\forall X3.((X2 \in X1) \wedge (X3 \in X1)) \Rightarrow (k6\_subset\_1\ X2\ X3 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{3}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k7\_numbers)))) \Rightarrow (\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0)\ X1) \Rightarrow ((r1\_mesfunc1\ X0\ X1\ X2\ X3) \Leftrightarrow (\forall X4.(v1\_xreal\_0\ X4) \Rightarrow (k9\_subset\_1\ X0\ X3\ (k16\_mesfunc1\ X0\ X2\ (k1\_measure6\ X4)) \in X1)))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k7\_numbers))))\Rightarrow(\forall X2.\forall X3.(m1\_subset\_1\ X3\ k7\_numbers)\Rightarrow((r1\_tarski\ X2\ (k9\_xtuple\_0\ X1))\Rightarrow(k9\_subset\_1\ X0\ X2\ (k16\_mesfunc1\ X0\ X1\ X3) = k6\_subset\_1\ X2\ (k9\_subset\_1\ X0\ X2\ (k17\_mesfunc1\ X0\ X1\ X3)))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k7\_numbers))))\Rightarrow(\forall X2.\forall X3.(m1\_subset\_1\ X3\ k7\_numbers)\Rightarrow((r1\_tarski\ X2\ (k9\_xtuple\_0\ X1))\Rightarrow(k9\_subset\_1\ X0\ X2\ (k17\_mesfunc1\ X0\ X1\ X3) = k6\_subset\_1\ X2\ (k9\_subset\_1\ X0\ X2\ (k16\_mesfunc1\ X0\ X1\ X3)))))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(m1\_subset\_1\ (k1\_measure6\ X0)\ k7\_numbers) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow(((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge(v4\_prob\_1\ X1\ X0)))\Rightarrow((\neg v1\_xboole\_0\ X1)\wedge((v2\_finsub\_1\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge(v4\_prob\_1\ X1\ X0))))) \tag{11}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k7\_numbers))))\Rightarrow(\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0)\ X1)\Rightarrow((r1\_tarski\ X3\ (k9\_xtuple\_0\ X2))\Rightarrow((r1\_mesfunc1\ X0\ X1\ X2\ X3)\Leftrightarrow(\forall X4.(v1\_xreal\_0\ X4)\Rightarrow(k9\_subset\_1\ X0\ X3\ (k17\_mesfunc1\ X0\ X2\ (k1\_measure6\ X4))\in X1)))))))$$