t20_mesfunc9 (TMd-PLw5PUcDJx8kb3EAK267behrLiyBNxDP)

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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 $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $k4\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_numbers : \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_mesfunc8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_mesfunc5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $r1\_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v10\_valued\_0 : \iota \Rightarrow o$ be given. Let $v6\_supinf\_2 : \iota \Rightarrow o$ be given. Let $v4\_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k3\_rfunct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_valued\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_prob\_1\ X1\ X0) \wedge ((v4\_prob\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X1\ k7\_numbers) \wedge ((v10\_valued\_0\ X2) \wedge ((v6\_supinf\_2\ X2) \wedge ((v4\_measure1\ X2\ X0\ X1) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ k7\_numbers))))))))) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k7\_numbers)))) \Rightarrow (\forall X4.(m2\_subset\_1\ X4\ (k1\_zfmisc\_1\ X0)\ X1) \Rightarrow (\forall X5.(m2\_subset\_1\ X5\ (k1\_zfmisc\_1\ X0)\ X1) \Rightarrow (((r1\_mesfunc1\ X0\ X1\ X3\ X4) \wedge (X5 = k9\_subset\_1\ X0\ (k1\_relset\_1\ X0\ X3)\ X4)) \Rightarrow (r1\_mesfunc1\ X0\ X1\ (k2\_partfun1\ X0\ k7\_numbers\ X3\ X4)\ X5)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Rightarrow (k3\_xboole\_0\ X0\ X1 = X0) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\Rightarrow((r2\_relset\_1\ X0\ X1\ X2\ X3)\Leftrightarrow(X2 = X3)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))\Rightarrow(k9\_subset\_1\ X0\ X1\ X2 = k3\_xboole\_0\ X1\ X2) \tag{4}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.k3\_rfunct\_3\ X0\ X1 = k4\_partfun1\ X0\ X1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow(\exists X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ k7\_numbers)))\wedge((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ X1)\wedge((v5\_relat\_1\ X2\ k7\_numbers)\wedge((v1\_funct\_1\ X2)\wedge((\neg v1\_xboole\_0\ X2)\wedge((v1\_partfun1\ X2\ X1)\wedge((v1\_funct\_2\ X2\ X1\ k7\_numbers)\wedge((v2\_valued\_0\ X2)\wedge((v10\_valued\_0\ X2)\wedge((v6\_supinf\_2\ X2)\wedge(v4\_measure1\ X2\ X0\ X1)))))))))))) \tag{7}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Rightarrow(m1\_subset\_1\ X2\ X0)) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ k5\_numbers\ (k3\_rfunct\_3\ X0\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k3\_rfunct\_3\ X0\ X1))))))\wedge(v7\_ordinal1\ X3))\Rightarrow((v1\_funct\_1\ (k4\_mesfunc5\ X0\ X1\ X2\ X3))\wedge(m1\_subset\_1\ (k4\_mesfunc5\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\Rightarrow((v1\_funct\_1\ (k2\_partfun1\ X0\ X1\ X2\ X3))\wedge(m1\_subset\_1\ (k2\_partfun1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ k5\_numbers\ (k4\_partfun1\ X0\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ X1))))))\Rightarrow((v1\_mesfunc8\ X2\ X0\ X1)\Leftrightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow(\forall X4.(v7\_ordinal1\ X4)\Rightarrow(k1\_relset\_1\ X0\ (k4\_mesfunc5\ X0\ X1\ X2\ X3) = k1\_relset\_1\ X0\ (k4\_mesfunc5\ X0\ X1\ X2\ X4)))))) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0\ X0\ X1 = k3\_xboole\_0\ X1\ X0 \tag{13}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v7\_ordinal1\ X0) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{15}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_prob\_1\ X1\ X0)\wedge((v4\_prob\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0)\ X1)\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ k5\_numbers\ (k4\_partfun1\ X0\ k7\_numbers))\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ k7\_numbers)))))))\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge((v1\_funct\_2\ X4\ k5\_numbers\ (k4\_partfun1\ X0\ k7\_numbers))\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ k7\_numbers)))))))\Rightarrow(\forall X5.(v7\_ordinal1\ X5)\Rightarrow(((v1\_mesfunc8\ X3\ X0\ k7\_numbers)\wedge((r1\_tarski\ X2\ (k1\_relset\_1\ X0\ (k4\_mesfunc5\ X0\ k7\_numbers\ X3\ k6\_numbers)))\wedge(\forall X6.(v7\_ordinal1\ X6)\Rightarrow((r1\_mesfunc1\ X0\ X1\ (k4\_mesfunc5\ X0\ k7\_numbers\ X3\ X6)\ X2)\wedge(r2\_relset\_1\ X0\ k7\_numbers\ (k4\_mesfunc5\ X0\ k7\_numbers\ X4\ X6)\ (k2\_partfun1\ X0\ k7\_numbers\ (k4\_mesfunc5\ X0\ k7\_numbers\ X3\ X6)\ X2))))))\Rightarrow(r1\_mesfunc1\ X0\ X1\ (k4\_mesfunc5\ X0\ k7\_numbers\ X4\ X5)\ X2)))))))$$