

## t89\_mesfunc5

(TMV5S355fHGC4EfuzcYjag4k5mTyshZfeTk)

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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  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_numbers : \iota$  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  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_mesfunc2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_mesfunc5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_mesfunc5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_mesfunc5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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  $r1\_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\
 & ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
 & (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 \\
 & X2 X1 k7\_numbers) \wedge ((v10\_valued\_0 X2) \wedge ((v6\_supinf\_2 X2) \wedge ((v4\_measure1 \\
 & X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 k7\_numbers)))))) \Rightarrow \\
 & (\forall X3.((v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
 & X0 k7\_numbers)))) \Rightarrow ((v6\_supinf\_2 X3) \Rightarrow ((\forall X4.(m2\_subset\_1 \\
 & X4 (k1\_zfmisc\_1 X0) X1) \Rightarrow (\neg (X4 = k1\_relset\_1 X0 X3) \wedge (r1\_mesfunc1 \\
 & X0 X1 X3 X4)) \vee (k7\_mesfunc5 X0 X1 X2 X3 = k6\_mesfunc5 X0 X1 X2 X3))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\
 & ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
 & (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 \\
 & X2 X1 k7\_numbers) \wedge ((v10\_valued\_0 X2) \wedge ((v6\_supinf\_2 X2) \wedge ((v4\_measure1 \\
 & X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 k7\_numbers)))))) \Rightarrow \\
 & (\forall X3.((v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
 & X0 k7\_numbers)))) \Rightarrow (((r1\_mesfunc2 X0 X1 X3) \wedge (v6\_supinf\_2 X3)) \Rightarrow \\
 & (k6\_mesfunc5 X0 X1 X2 X3 = k5\_mesfunc5 X0 X1 X2 X3))))))
 \end{aligned}
 \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\
& ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
& (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 \\
& X2 X1 k7\_numbers) \wedge ((v10\_valued\_0 X2) \wedge ((v6\_supinf\_2 X2) \wedge ((v4\_measure1 \\
& X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 k7\_numbers)))))) \Rightarrow \\
& (\forall X3.((v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& X0 k7\_numbers)))) \Rightarrow ((r1\_mesfunc2 X0 X1 X3) \Rightarrow (m2\_subset\_1 (k1\_relset\_1 \\
& X0 X3) (k1\_zfmisc\_1 X0) X1))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ( \\
& m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k7\_numbers)))) \Rightarrow ( \\
& \forall X2.((\neg v1\_xboole\_0 X2) \wedge ((v1\_prob\_1 X2 X0) \wedge ((v4\_prob\_1 \\
& X2 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X3. \\
& (m1\_subset\_1 X3 X2) \Rightarrow ((r1\_mesfunc2 X0 X2 X1) \Rightarrow (r1\_mesfunc1 X0 X2 \\
& X1 X3))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\
& (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 \\
& X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
& X0)) \Rightarrow (v1\_xboole\_0 X1))
\end{aligned} \tag{6}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\
& ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
& (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 \\
& X2 X1 k7\_numbers) \wedge ((v10\_valued\_0 X2) \wedge ((v6\_supinf\_2 X2) \wedge ((v4\_measure1 \\
& X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 k7\_numbers)))))) \Rightarrow \\
& (\forall X3.((v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& X0 k7\_numbers)))) \Rightarrow ((r1\_mesfunc2 X0 X1 X3) \wedge (v6\_supinf\_2 X3)) \Rightarrow \\
& ((k7\_mesfunc5 X0 X1 X2 X3 = k6\_mesfunc5 X0 X1 X2 X3) \wedge (k7\_mesfunc5 \\
& X0 X1 X2 X3 = k5\_mesfunc5 X0 X1 X2 X3))))))
\end{aligned}$$