

## t90\_mesfunc5

(TMSqpqJ6H4dRwfaHtw4EofG7Cz4z4CHjJcS)

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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  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  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. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  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. 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.

$$\begin{aligned}
 & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\
 & ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
 & (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 \\
 & X2 X1 k7\_numbers) \wedge ((v10\_valued\_0 X2) \wedge ((v6\_supinf\_2 X2) \wedge ((v4\_measure1 \\
 & X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 k7\_numbers)))))) \Rightarrow \\
 & (\forall X3.((v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
 & X0 k7\_numbers)))) \Rightarrow ((v6\_supinf\_2 X3) \Rightarrow ((\forall X4.(m2\_subset\_1 \\
 & X4 (k1\_zfmisc\_1 X0) X1) \Rightarrow (\neg(X4 = k1\_relset\_1 X0 X3) \wedge (r1\_mesfunc1 \\
 & X0 X1 X3 X4))) \vee (r1\_xxreal\_0 k6\_numbers (k6\_mesfunc5 X0 X1 X2 X3))))))
 \end{aligned}
 \tag{2}$$

**Theorem 1**

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