

## t16\_mesfunc6

(TMTzSzoq1LsoZ8UX2RATV3CWuhededzPhag)

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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  $k1\_numbers : \iota$  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  $r1\_mesfunc6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_numbers : \iota$  be given. Let  $r1\_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_mesfunc5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((\neg v1\_xboole\_0 X1) \wedge \\
 & ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
 & (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2. ((v1\_funct\_1 X2) \wedge (m1\_subset\_1 \\
 & X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k7\_numbers)))) \Rightarrow (\forall X3. ( \\
 & m2\_subset\_1 X3 (k1\_zfmisc\_1 X0) X1) \Rightarrow (\forall X4. (m2\_subset\_1 \\
 & X4 (k1\_zfmisc\_1 X0) X1) \Rightarrow (((r1\_tarski X4 X3) \wedge (r1\_mesfunc1 X0 X1 \\
 & X2 X3)) \Rightarrow (r1\_mesfunc1 X0 X1 X2 X4))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((v1\_funct\_1 X1) \wedge ( \\
 & m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))))) \Rightarrow \\
 & ((v1\_funct\_1 (k1\_mesfunc5 X0 X1)) \wedge (m1\_subset\_1 (k1\_mesfunc5 \\
 & X0 X1) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k7\_numbers))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((\neg v1\_xboole\_0 X1) \wedge \\
 & ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
 & (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2. ((v1\_funct\_1 X2) \wedge (m1\_subset\_1 \\
 & X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow (\forall X3. ( \\
 & m2\_subset\_1 X3 (k1\_zfmisc\_1 X0) X1) \Rightarrow ((r1\_mesfunc6 X0 X1 X2 X3) \Leftrightarrow \\
 & (r1\_mesfunc1 X0 X1 (k1\_mesfunc5 X0 X2) X3))))))
 \end{aligned} \tag{3}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\ & ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge (m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow (\forall X3.( \\ & m2\_subset\_1 X3 (k1\_zfmisc\_1 X0) X1) \Rightarrow (\forall X4.(m2\_subset\_1 \\ & X4 (k1\_zfmisc\_1 X0) X1) \Rightarrow (((r1\_tarski X3 X4) \wedge (r1\_mesfunc6 X0 X1 \\ & X2 X4)) \Rightarrow (r1\_mesfunc6 X0 X1 X2 X3)))))) \end{aligned}$$