

## t78\_mesfunc6

(TMF4LB5c6MxKwwwuqvJ2yJTaMy6cFMwPSBrG)

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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  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_mesfunc6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k19\_rfunct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k18\_rfunct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_numbers : \iota$  be given. Let  $k1\_mesfunc5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k47\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_mesfunc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\ & ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge (m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow (\forall X3.( \\ & m2\_subset\_1 X3 (k1\_zfmisc\_1 X0) X1) \Rightarrow (((r1\_mesfunc6 X0 X1 X2 X3) \wedge \\ & (r1\_tarski X3 (k1\_relset\_1 X0 X2))) \Rightarrow (r1\_mesfunc6 X0 X1 (k19\_rfunct\_3 \\ & X0 X2) X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\ & ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge (m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow (\forall X3.( \\ & m2\_subset\_1 X3 (k1\_zfmisc\_1 X0) X1) \Rightarrow ((r1\_mesfunc6 X0 X1 X2 X3) \Rightarrow \\ & (r1\_mesfunc6 X0 X1 (k18\_rfunct\_3 X0 X2) X3)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\
& ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
& (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 X2) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow (\forall X3.( \\
& (v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 \\
& k1\_numbers)))) \Rightarrow (\forall X4.(m2\_subset\_1 X4 (k1\_zfmisc\_1 X0 \\
& X1) \Rightarrow (((r1\_mesfunc6 X0 X1 X2 X4) \wedge (r1\_mesfunc6 X0 X1 X3 X4)) \Rightarrow (r1\_mesfunc6 \\
& X0 X1 (k3\_valued\_1 X0 k1\_numbers k1\_numbers X2 X3) X4)))))) \\
& \hspace{15em} (4)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ( \\
& m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow ( \\
& \forall X2.((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& X0 k1\_numbers)))) \Rightarrow ((r2\_relset\_1 X0 k7\_numbers (k1\_mesfunc5 X0 \\
& (k3\_valued\_1 X0 k1\_numbers k1\_numbers X1 X2)) (k3\_mesfunc1 X0 ( \\
& k1\_mesfunc5 X0 X1) (k1\_mesfunc5 X0 X2))) \wedge ((r2\_relset\_1 X0 k7\_numbers \\
& (k1\_mesfunc5 X0 (k47\_valued\_1 X0 k1\_numbers k1\_numbers X1 X2)) \\
& (k4\_mesfunc1 X0 (k1\_mesfunc5 X0 X1) (k1\_mesfunc5 X0 X2))) \wedge ((k1\_relset\_1 \\
& X0 (k1\_mesfunc5 X0 (k3\_valued\_1 X0 k1\_numbers k1\_numbers X1 X2)) = \\
& k9\_subset\_1 X0 (k1\_relset\_1 X0 (k1\_mesfunc5 X0 X1)) (k1\_relset\_1 \\
& X0 (k1\_mesfunc5 X0 X2))) \wedge ((k1\_relset\_1 X0 (k1\_mesfunc5 X0 (k47\_valued\_1 \\
& X0 k1\_numbers k1\_numbers X1 X2)) = k9\_subset\_1 X0 (k1\_relset\_1 X0 \\
& (k1\_mesfunc5 X0 X1)) (k1\_relset\_1 X0 (k1\_mesfunc5 X0 X2))) \wedge ((k1\_relset\_1 \\
& X0 (k1\_mesfunc5 X0 (k3\_valued\_1 X0 k1\_numbers k1\_numbers X1 X2)) = \\
& k9\_subset\_1 X0 (k1\_relset\_1 X0 X1) (k1\_relset\_1 X0 X2)) \wedge (k1\_relset\_1 \\
& X0 (k1\_mesfunc5 X0 (k47\_valued\_1 X0 k1\_numbers k1\_numbers X1 X2)) = \\
& k9\_subset\_1 X0 (k1\_relset\_1 X0 X1) (k1\_relset\_1 X0 X2)))))) \\
& \hspace{15em} (5)
\end{aligned}$$

Assume the following.

$$v3\_membered k1\_numbers \hspace{15em} (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v3\_membered \\
& X1) \wedge ((v3\_membered X2) \wedge (((v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 X0 X1)))) \wedge ((v1\_funct\_1 X4) \wedge (m1\_subset\_1 X4 (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 X0 X2)))))) \Rightarrow ((v1\_funct\_1 (k3\_valued\_1 X0 X1 X2 X3 \\
& X4)) \wedge (m1\_subset\_1 (k3\_valued\_1 X0 X1 X2 X3 X4) (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& X0 k1\_numbers)))))) \\
& \hspace{15em} (7)
\end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((v1\_funct\_1 X1) \wedge \\ m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow \\ ((v1\_funct\_1 (k19\_rfunct\_3 X0 X1)) \wedge (m1\_subset\_1 (k19\_rfunct\_3 \\ X0 X1) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((v1\_funct\_1 X1) \wedge \\ m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow \\ ((v1\_funct\_1 (k18\_rfunct\_3 X0 X1)) \wedge (m1\_subset\_1 (k18\_rfunct\_3 \\ X0 X1) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge \\ m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow ( \\ k1\_mesfunc5 X0 X1 = X1) \end{aligned} \quad (10)$$

**Theorem 1**

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((\neg v1\_xboole\_0 X1) \wedge \\ ((v1\_prob\_1 X1 X0) \wedge ((v4\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (k1\_zfmisc\_1 X0)))))) \Rightarrow (\forall X2. ((v1\_funct\_1 X2) \wedge (m1\_subset\_1 \\ X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow (\forall X3. ( \\ (v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 \\ k1\_numbers)))) \Rightarrow (\forall X4. (m2\_subset\_1 X4 (k1\_zfmisc\_1 X0 \\ X1) \Rightarrow (((r1\_tarski X4 (k9\_subset\_1 X0 (k1\_relset\_1 X0 X2) (k1\_relset\_1 \\ X0 X3))) \wedge ((r1\_mesfunc6 X0 X1 X2 X4) \wedge (r1\_mesfunc6 X0 X1 X3 X4))) \Rightarrow \\ (r1\_mesfunc6 X0 X1 (k3\_valued\_1 X0 k1\_numbers k1\_numbers (k19\_rfunct\_3 \\ X0 (k3\_valued\_1 X0 k1\_numbers k1\_numbers X2 X3)) (k18\_rfunct\_3 \\ X0 X2)) X4)))))) \end{aligned}$$