

t13\_topdim\_1  
(TMdSi8M2GvXzjgTkSLize58jcGTiEELRx1s)

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Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $v2\_topdim\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_topdim\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\
& (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 \\
& X0)))) \Rightarrow (\forall X3.(v1\_int\_1 X3) \Rightarrow (((v2\_topdim\_1 X1 X0) \wedge ((v2\_topdim\_1 \\
& X2 X0) \wedge ((r1\_xxreal\_0 (k3\_topdim\_1 X0 X1) X3) \wedge (r1\_xxreal\_0 (k3\_topdim\_1 \\
& X0 X2) X3)))) \Rightarrow ((v2\_topdim\_1 (k4\_subset\_1 (k1\_zfmisc\_1 (u1\_struct\_0 \\
& X0)) X1 X2) X0) \wedge (r1\_xxreal\_0 (k3\_topdim\_1 X0 (k4\_subset\_1 (k1\_zfmisc\_1 \\
& (u1\_struct\_0 X0)) X1 X2) X3))))))
\end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\
& (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 \\
& X0)))) \Rightarrow (\forall X3.(v1\_int\_1 X3) \Rightarrow (((v2\_topdim\_1 X1 X0) \wedge ((v2\_topdim\_1 \\
& X2 X0) \wedge ((r1\_xxreal\_0 (k3\_topdim\_1 X0 X1) X3) \wedge (r1\_xxreal\_0 (k3\_topdim\_1 \\
& X0 X2) X3)))) \Rightarrow (r1\_xxreal\_0 (k3\_topdim\_1 X0 (k4\_subset\_1 (k1\_zfmisc\_1 \\
& (u1\_struct\_0 X0)) X1 X2) X3))))))
\end{aligned}$$