

# l30\_realset2 (TMVXTcpCCpEampSGFYktg- Wqke9TjjScZgiZ)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $g6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $c4\_realset2 : \iota$  be given. Let  $c8\_realset2 : \iota$  be given. Let  $c9\_realset2 : \iota$  be given. Let  $c7\_realset2 : \iota$  be given. Let  $c5\_realset2 : \iota$  be given. Let  $l6\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $np\_2 : \iota$  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  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v36\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $k1\_realset2 : \iota$  be given. Let  $k1\_funct\_7 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_realset2 : \iota$  be given. Let  $np\_1 : \iota$  be given. Assume the following.

$$\neg v1\_xboole\_0 \ np\_2 \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((\neg v1\_xboole\_0 \\ & X0) \wedge (((v1\_funct\_1 \ X1) \wedge ((v1\_funct\_2 \ X1 \ (k2\_zfmisc\_1 \ X0 \ X0) \ X0) \wedge \\ & (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \ X0) \\ & X0)))))) \wedge (((v1\_funct\_1 \ X2) \wedge ((v1\_funct\_2 \ X2 \ (k2\_zfmisc\_1 \ X0 \ X0) \\ & X0) \wedge (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \\ & X0) \ X0)))))) \wedge ((m1\_subset\_1 \ X3 \ X0) \wedge (m1\_subset\_1 \ X4 \ X0)))) \Rightarrow ((\neg \\ & v2\_struct\_0 \ (g6\_algstr\_0 \ X0 \ X1 \ X2 \ X3 \ X4)) \wedge (v36\_algstr\_0 \ (g6\_algstr\_0 \\ & X0 \ X1 \ X2 \ X3 \ X4))) \end{aligned} \tag{2}$$

Assume the following.

$$(v1\_funct\_1 \ k1\_realset2) \wedge ((v1\_funct\_2 \ k1\_realset2 \ (k2\_zfmisc\_1 \ np\_2 \ np\_2) \ np\_2) \wedge (m1\_subset\_1 \ k1\_realset2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ (k2\_zfmisc\_1 \ np\_2 \ np\_2) \ np\_2)))) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. m1\_subset\_1 \ (k1\_funct\_7 \ X0 \ X1) \ X1 \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((v1\_funct\_1 \\ & X1)\wedge((v1\_funct\_2 X1 (k2\_zfmisc\_1 X0 X0) X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) X0))))\wedge((v1\_funct\_1 X2)\wedge( \\ & (v1\_funct\_2 X2 (k2\_zfmisc\_1 X0 X0) X0)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) X0))))\wedge((m1\_subset\_1 X3 X0)\wedge \\ & (m1\_subset\_1 X4 X0)))\Rightarrow((v36\_algstr\_0 (g6\_algstr\_0 X0 X1 X2 X3 \\ & X4)\wedge(l6\_algstr\_0 (g6\_algstr\_0 X0 X1 X2 X3 X4))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & (v1\_funct\_1 c9\_realset2)\wedge((v1\_funct\_2 c9\_realset2 (k2\_zfmisc\_1 \\ & c4\_realset2 c4\_realset2) c4\_realset2)\wedge(m1\_subset\_1 c9\_realset2 \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 c4\_realset2 c4\_realset2) \\ & c4\_realset2)))) \end{aligned} \quad (6)$$

Assume the following.

$$m1\_subset\_1 c5\_realset2 c4\_realset2 \quad (7)$$

Assume the following.

$$c9\_realset2 = k2\_realset2 \quad (8)$$

Assume the following.

$$c8\_realset2 = k1\_realset2 \quad (9)$$

Assume the following.

$$c7\_realset2 = k1\_funct\_7 np\_1 np\_2 \quad (10)$$

Assume the following.

$$c4\_realset2 = np\_2 \quad (11)$$

**Theorem 1**

$$\begin{aligned} & (\neg v2\_struct\_0 (g6\_algstr\_0 c4\_realset2 c8\_realset2 c9\_realset2 \\ & c7\_realset2 c5\_realset2))\wedge(l6\_algstr\_0 (g6\_algstr\_0 c4\_realset2 \\ & c8\_realset2 c9\_realset2 c7\_realset2 c5\_realset2)) \end{aligned}$$