

t11\_bhsp\_4  
(TMF6F7NugKhUfd5V27HvnG8ceYgHhHNvjfF)

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Let  $v2\_struct.0 : \iota \Rightarrow o$  be given. Let  $v13\_algstr.0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect.1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect.1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect.1 : \iota \Rightarrow o$  be given. Let  $v5\_rlvect.1 : \iota \Rightarrow o$  be given. Let  $v6\_rlvect.1 : \iota \Rightarrow o$  be given. Let  $v7\_rlvect.1 : \iota \Rightarrow o$  be given. Let  $v8\_rlvect.1 : \iota \Rightarrow o$  be given. Let  $v2\_bhsp.1 : \iota \Rightarrow o$  be given. Let  $l1\_bhsp.1 : \iota \Rightarrow o$  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  $k5\_numbers : \iota$  be given. Let  $u1\_struct.0 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc.1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_bhsp.4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_bhsp.3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_bhsp.4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_bhsp.2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_rlvect.1 : \iota \Rightarrow o$  be given. Let  $l2\_algstr.0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct.0 X0) \wedge ((v13\_algstr.0 X0) \wedge ((v2\_rlvect.1 \\ & X0) \wedge ((v3\_rlvect.1 X0) \wedge ((v4\_rlvect.1 X0) \wedge ((v5\_rlvect.1 X0) \wedge \\ & ((v6\_rlvect.1 X0) \wedge ((v7\_rlvect.1 X0) \wedge ((v8\_rlvect.1 X0) \wedge ((v2\_bhsp.1 \\ & X0) \wedge (l1\_bhsp.1 X0)))))))))) \Rightarrow (\forall X1.((v1\_funct.1 X1) \wedge \\ & ((v1\_funct.2 X1 k5\_numbers (u1\_struct.0 X0)) \wedge (m1\_subset.1 X1 \\ & (k1\_zfmisc.1 (k2\_zfmisc.1 k5\_numbers (u1\_struct.0 X0)))))) \Rightarrow \\ & ((v1\_bhsp.2 X1 X0) \Rightarrow (v2\_bhsp.3 X1 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(l1\_rlvect.1 X0) \Rightarrow (l2\_algstr.0 X0) \quad (2)$$

Assume the following.

$$\forall X0.(l1\_bhsp.1 X0) \Rightarrow (l1\_rlvect.1 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1.(((\neg v2\_struct.0 X0) \wedge (l2\_algstr.0 X0)) \wedge \\ & ((v1\_funct.1 X1) \wedge ((v1\_funct.2 X1 k5\_numbers (u1\_struct.0 X0)) \wedge \\ & (m1\_subset.1 X1 (k1\_zfmisc.1 (k2\_zfmisc.1 k5\_numbers (u1\_struct.0 \\ & X0)))))) \Rightarrow ((v1\_funct.1 (k1\_bhsp.4 X0 X1)) \wedge ((v1\_funct.2 (k1\_bhsp.4 \\ & X0 X1) k5\_numbers (u1\_struct.0 X0)) \wedge (m1\_subset.1 (k1\_bhsp.4 X0 \\ & X1) (k1\_zfmisc.1 (k2\_zfmisc.1 k5\_numbers (u1\_struct.0 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\
& X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
& ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge ((v2\_bhs\_p1 \\
& X0) \wedge (l1\_bhs\_p1 X0)))))))))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge \\
& ((v1\_funct\_2 X1 k5\_numbers (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X1 \\
& (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers (u1\_struct\_0 X0)))))) \Rightarrow \\
& ((v1\_bhs\_p4 X1 X0) \Leftrightarrow (v1\_bhs\_p2 (k1\_bhs\_p4 X0 X1) X0)))
\end{aligned} \tag{5}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\
& X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
& ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge ((v2\_bhs\_p1 \\
& X0) \wedge (l1\_bhs\_p1 X0)))))))))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge \\
& ((v1\_funct\_2 X1 k5\_numbers (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X1 \\
& (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers (u1\_struct\_0 X0)))))) \Rightarrow \\
& ((v1\_bhs\_p4 X1 X0) \Rightarrow (v2\_bhs\_p3 (k1\_bhs\_p4 X0 X1) X0)))
\end{aligned}$$