

t26\_bhsp\_1  
(TMc4jig32wDWVqzjKd4ATvFcifGJa6HvkyX)

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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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_bhsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_0 : \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k2\_bhsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_bhsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (((r1\_xxreal\_0 k6\_numbers X0) \wedge (k6\_square\_1 X0 = k6\_numbers)) \Rightarrow (X0 = k6\_numbers)) \quad (1)$$

Assume the following.

$$k7\_square\_1 k6\_numbers = k6\_numbers \quad (2)$$

Assume the following.

$$(m2\_subset\_1 np\_0 k1\_numbers k5\_numbers) \wedge ((m1\_subset\_1 np\_0 k5\_numbers) \wedge (m1\_subset\_1 np\_0 k1\_numbers)) \quad (3)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k7\_square\_1 X0 = k6\_square\_1 X0) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0)\wedge((v13\_algstr\_0 \\ & X0)\wedge((v2\_rlvect\_1 X0)\wedge((v3\_rlvect\_1 X0)\wedge((v4\_rlvect\_1 X0)\wedge \\ & ((v5\_rlvect\_1 X0)\wedge((v6\_rlvect\_1 X0)\wedge((v7\_rlvect\_1 X0)\wedge((v8\_rlvect\_1 \\ & X0)\wedge((v2\_bhspl\_1 X0)\wedge(l1\_bhspl\_1 X0))))))))))\wedge((m1\_subset\_1 \\ & X1 (u1\_struct\_0 X0))\wedge(m1\_subset\_1 X2 (u1\_struct\_0 X0)))\Rightarrow(k2\_bhspl\_1 \\ & X0 X1 X2 = k1\_bhspl\_1 X0 X1 X2) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0)\wedge((v13\_algstr\_0 \\ & X0)\wedge((v2\_rlvect\_1 X0)\wedge((v3\_rlvect\_1 X0)\wedge((v4\_rlvect\_1 X0)\wedge \\ & ((v5\_rlvect\_1 X0)\wedge((v6\_rlvect\_1 X0)\wedge((v7\_rlvect\_1 X0)\wedge((v8\_rlvect\_1 \\ & X0)\wedge((v2\_bhspl\_1 X0)\wedge(l1\_bhspl\_1 X0))))))))))\wedge((m1\_subset\_1 \\ & X1 (u1\_struct\_0 X0))\wedge(m1\_subset\_1 X2 (u1\_struct\_0 X0)))\Rightarrow(m1\_subset\_1 \\ & (k2\_bhspl\_1 X0 X1 X2) k1\_numbers) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0)\wedge((v13\_algstr\_0 X0)\wedge((v2\_rlvect\_1 \\ & X0)\wedge((v3\_rlvect\_1 X0)\wedge((v4\_rlvect\_1 X0)\wedge((v5\_rlvect\_1 X0)\wedge \\ & ((v6\_rlvect\_1 X0)\wedge((v7\_rlvect\_1 X0)\wedge((v8\_rlvect\_1 X0)\wedge((v2\_bhspl\_1 \\ & X0)\wedge(l1\_bhspl\_1 X0))))))))))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0))\Rightarrow(k3\_bhspl\_1 X0 X1 = k7\_square\_1 (k2\_bhspl\_1 X0 X1 X1))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0)\wedge(l1\_bhspl\_1 X0))\Rightarrow((v2\_bhspl\_1 X0)\Leftrightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0))\Rightarrow(\forall X2.(m1\_subset\_1 \\ & X2 (u1\_struct\_0 X0))\Rightarrow(\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\ & X0))\Rightarrow(\forall X4.(m1\_subset\_1 X4 k1\_numbers)\Rightarrow(((k1\_bhspl\_1 X0 \\ & X1 X1 = k6\_numbers)\Rightarrow(X1 = k4\_struct\_0 X0))\wedge(((X1 = k4\_struct\_0 X0)\Rightarrow \\ & (k1\_bhspl\_1 X0 X1 X1 = k6\_numbers))\wedge((r1\_xreal\_0 k6\_numbers (k1\_bhspl\_1 \\ & X0 X1 X1))\wedge((k1\_bhspl\_1 X0 X1 X2 = k1\_bhspl\_1 X0 X2 X1)\wedge((k1\_bhspl\_1 \\ & X0 (k1\_algstr\_0 X0 X1 X2) X3 = k7\_real\_1 (k1\_bhspl\_1 X0 X1 X3) (k1\_bhspl\_1 \\ & X0 X2 X3))\wedge(k1\_bhspl\_1 X0 (k1\_rlvect\_1 X0 X1 X4) X2 = k8\_real\_1 X4 ( \\ & k1\_bhspl\_1 X0 X1 X2)))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers)\Rightarrow(v1\_xreal\_0 X0) \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0)\wedge((v13\_algstr\_0 X0)\wedge((v2\_rlvect\_1 \\ & X0)\wedge((v3\_rlvect\_1 X0)\wedge((v4\_rlvect\_1 X0)\wedge((v5\_rlvect\_1 X0)\wedge \\ & ((v6\_rlvect\_1 X0)\wedge((v7\_rlvect\_1 X0)\wedge((v8\_rlvect\_1 X0)\wedge((v2\_bhspl\_1 \\ & X0)\wedge(l1\_bhspl\_1 X0))))))))))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0))\Rightarrow((k3\_bhspl\_1 X0 X1 = k6\_numbers)\Leftrightarrow(X1 = k4\_struct\_0 X0))) \end{aligned}$$