

t49\_lexbfs  
(TMYdv1pcStPN Acp4nXkHi4qtitJBL8ec2HS)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_glib\_000 : \iota \Rightarrow o$  be given. Let  $v2\_glib\_000 : \iota \Rightarrow o$  be given. Let  $k1\_reset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $k7\_lexbfs : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_finsub\_1 : \iota \Rightarrow \iota$  be given. Let  $k14\_lexbfs : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k16\_lexbfs : \iota \Rightarrow \iota$  be given. Let  $k39\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $k15\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k13\_lexbfs : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $m2\_lexbfs : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k40\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge ((v1\_glib\_000 X0) \wedge (v2\_glib\_000 X0)))))) \Rightarrow \\ (k39\_glib\_000 (k16\_lexbfs X0) = k15\_glib\_000 X0) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge ((v1\_glib\_000 X0) \wedge (v2\_glib\_000 X0)))))) \Rightarrow \\ (\forall X1.(v7\_ordinal1 X1) \Rightarrow ((k1\_reset\_1 (k6\_glib\_000 X0) \\ (k7\_lexbfs (k6\_glib\_000 X0) k5\_numbers (k9\_funct\_2 (k6\_glib\_000 \\ X0) (k5\_finsub\_1 k5\_numbers)) (k13\_lexbfs X0 (k16\_lexbfs X0) X1)) = \\ k6\_glib\_000 X0) \Leftrightarrow (r1\_xxreal\_0 (k15\_glib\_000 X0) X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (r1\_xxreal\_0 X0 X0) \quad (3)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1 X0)\wedge((v4\_relat\_1 X0 k5\_numbers)\wedge((v1\_funct\_1 X0)\wedge((v1\_finset\_1 X0)\wedge(v1\_glib\_000 X0))))))\wedge(m2\_lexbfs X1 X0))\Rightarrow(k14\_lexbfs X0 X1 = k40\_glib\_000 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_relat\_1 X0)\wedge((v4\_relat\_1 X0 k5\_numbers)\wedge((v1\_funct\_1 X0)\wedge((v1\_finset\_1 X0)\wedge(v1\_glib\_000 X0))))))\wedge((m2\_lexbfs X1 X0)\wedge(v7\_ordinal1 X2))\Rightarrow(k13\_lexbfs X0 X1 X2 = k1\_funct\_1 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v4\_relat\_1 X0 k5\_numbers)\wedge((v1\_funct\_1 X0)\wedge((v1\_finset\_1 X0)\wedge(v1\_glib\_000 X0))))))\Rightarrow(\forall X1.(m2\_lexbfs X1 X0)\Rightarrow((v1\_relat\_1 X1)\wedge((v4\_relat\_1 X1 k5\_numbers)\wedge((v1\_funct\_1 X1)\wedge(v1\_partfun1 X1 k5\_numbers)))))) \quad (7)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v4\_relat\_1 X0 k5\_numbers)\wedge((v1\_funct\_1 X0)\wedge((v1\_finset\_1 X0)\wedge((v1\_glib\_000 X0)\wedge(v2\_glib\_000 X0))))))\Rightarrow(m2\_lexbfs (k16\_lexbfs X0) X0) \quad (8)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v4\_relat\_1 X0 k5\_numbers)\wedge((v1\_funct\_1 X0)\wedge((v1\_finset\_1 X0)\wedge((v1\_glib\_000 X0)\wedge(v2\_glib\_000 X0))))))\Rightarrow((-v1\_xboole\_0 (k15\_glib\_000 X0))\wedge(m1\_subset\_1 (k15\_glib\_000 X0) k5\_numbers)) \quad (9)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v4\_relat\_1 X0 k5\_numbers)\wedge((v1\_funct\_1 X0)\wedge(v1\_partfun1 X0 k5\_numbers))))\Rightarrow(k40\_glib\_000 X0 = k1\_funct\_1 X0 (k39\_glib\_000 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1)\Rightarrow(v7\_ordinal1 X0) \quad (11)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow(v1\_xxreal\_0 X0) \quad (12)$$

**Theorem 1**

$$\forall X0.(((v1\_relat\_1 X0)\wedge((v4\_relat\_1 X0 k5\_numbers)\wedge((v1\_funct\_1 X0)\wedge((v1\_finset\_1 X0)\wedge((v1\_glib\_000 X0)\wedge(v2\_glib\_000 X0))))))\wedge(k1\_relset\_1 (k6\_glib\_000 X0) (k7\_lexbfs (k6\_glib\_000 X0) k5\_numbers) (k9\_funct\_2 (k6\_glib\_000 X0) (k5\_finsub\_1 k5\_numbers)) (k14\_lexbfs X0 (k16\_lexbfs X0))) = k6\_glib\_000 X0)$$