

t35_lexbfs

(TML8HuJZV2JqK5cx6m3E2TgekBMeC9eyokm)

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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 $v3_lexbfs : \iota \Rightarrow o$ be given. Let $k16_lexbfs : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15_glib_000 : \iota \Rightarrow \iota$ be given. Let $k13_lexbfs : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $m2_lexbfs : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow \\ & (\forall X1.(v7_ordinal1 X1) \Rightarrow ((r1_xxreal_0 (k15_glib_000 X0) \\ & X1) \Rightarrow (k13_lexbfs X0 (k16_lexbfs X0) (k15_glib_000 X0) = k13_lexbfs \\ & X0 (k16_lexbfs X0) X1))) \end{aligned} \tag{1}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((v1_relat_1 X0) \wedge ((v4_relat_1 \\ & X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 \\ & X0)))))) \wedge ((m2_lexbfs X1 X0) \wedge (v7_ordinal1 X2)) \Rightarrow (k13_lexbfs X0 \\ & X1 X2 = k1_funct_1 X1 X2) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m2_lexbfs \\ & X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v1_funct_1 \\ & X1) \wedge (v1_partfun1 X1 k5_numbers)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow (m2_lexbfs (k16_lexbfs X0) X0) \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow ((\neg v1_xboole_0 (k15_glib_000 X0)) \wedge (m1_subset_1 (k15_glib_000 X0) k5_numbers)) \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge (v1_partfun1 X0 k5_numbers)))) \Rightarrow ((v3_lexbfs X0) \Leftrightarrow (\exists X1. (v7_ordinal1 X1) \wedge (\forall X2. (v7_ordinal1 X2) \Rightarrow ((r1_xxreal_0 X1 X2) \Rightarrow (k1_funct_1 X0 X1 = k1_funct_1 X0 X2)))))) \quad (7)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (8)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v2_glib_000 X0)))))) \Rightarrow (v3_lexbfs (k16_lexbfs X0))$$