

t5_bcialg_6 (TMMobd- Pqco4vUr3XxUcdSePnAobZqSqBABH)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_bcialg_1 : \iota \Rightarrow o$ be given. Let $v4_bcialg_1 : \iota \Rightarrow o$ be given. Let $v5_bcialg_1 : \iota \Rightarrow o$ be given. Let $v7_bcialg_1 : \iota \Rightarrow o$ be given. Let $l2_bcialg_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_bcialg_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_binop_2 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_bcialg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $np_0 : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k1_int_2 : \iota \Rightarrow \iota$ be given. Let $k16_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k2_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_bcialg_6 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_bcialg_1 X0) \wedge ((v4_bcialg_1 \\ X0) \wedge ((v5_bcialg_1 X0) \wedge ((v7_bcialg_1 X0) \wedge (l2_bcialg_1 X0)))))) \Rightarrow \\ (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k3_bcialg_6 X0 \\ np_1 X1 = X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (4)$$

Assume the following.

$$k4_xcmplx_0 (k4_xcmplx_0 np_1) = np_1 \quad (5)$$

Assume the following.

$$\neg r1_xxreal_0 \ np_0 \ (k4_xcmplx_0 \ np_1) \quad (6)$$

Assume the following.

$$r1_xxreal_0 \ np_0 \ np_1 \quad (7)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (8)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (9)$$

Assume the following.

$$\forall X0.(v1_int_1 \ X0) \Rightarrow (k1_int_2 \ X0 = k16_complex1 \ X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1_int_1 \ X0) \Rightarrow (k19_binop_2 \ X0 = k4_xcmplx_0 \ X0) \quad (11)$$

Assume the following.

$$\forall X0.(v1_int_1 \ X0) \Rightarrow (k1_int_2 \ (k1_int_2 \ X0) = k1_int_2 \ X0) \quad (12)$$

Assume the following.

$$\forall X0.(v1_int_1 \ X0) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (v1_int_1 \ (k4_xcmplx_0 \ X0))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0 \ X0) \wedge (l2_bcialg_1 \ X0)) \wedge (m1_subset_1 \ X1 \ (u1_struct_0 \ X0))) \Rightarrow (m1_subset_1 \ (k2_bcialg_1 \ X0 \ X1) \ (u1_struct_0 \ X0)) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 \ X0) \wedge ((v3_bcialg_1 \ X0) \wedge ((v4_bcialg_1 \ X0) \wedge ((v5_bcialg_1 \ X0) \wedge ((v7_bcialg_1 \ X0) \wedge (l2_bcialg_1 \ X0)))))) \Rightarrow \\ & (\forall X1.(v1_int_1 \ X1) \Rightarrow (\forall X2.(m1_subset_1 \ X2 \ (u1_struct_0 \ X0) \Rightarrow (((r1_xxreal_0 \ k6_numbers \ X1) \Rightarrow (k3_bcialg_6 \ X0 \ X1 \ X2 = k2_binop_1 \\ & (u1_struct_0 \ X0) \ k5_numbers \ (u1_struct_0 \ X0) \ (k2_bcialg_6 \ X0 \ X2 \ (k1_int_2 \ X1))) \wedge ((\neg r1_xxreal_0 \ k6_numbers \ X1) \Rightarrow (k3_bcialg_6 \\ & X0 \ X1 \ X2 = k2_binop_1 \ (u1_struct_0 \ X0) \ k5_numbers \ (u1_struct_0 \ X0) \ (k2_bcialg_6 \ X0) \ (k2_bcialg_1 \ X0 \ X2) \ (k1_int_2 \ X1))))))) \quad (15) \end{aligned}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (((r1_xxreal_0 k6_numbers X0) \Rightarrow (k16_complex1 X0 = X0)) \wedge ((\neg r1_xxreal_0 k6_numbers X0) \Rightarrow (k16_complex1 X0 = k4_xcmplx_0 X0))) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (17)$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (v1_xreal_0 X0) \quad (18)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_int_1 X0) \quad (19)$$

Theorem 1

$$\begin{aligned} & \forall X0.(((\neg v2_struct_0 X0) \wedge ((v3_bcialg_1 X0) \wedge ((v4_bcialg_1 X0) \wedge ((v5_bcialg_1 X0) \wedge ((v7_bcialg_1 X0) \wedge (l2_bcialg_1 X0))))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k3_bcialg_6 X0 (k19_binop_2 np_1) X1 = k2_bcialg_1 X0 X1)) \end{aligned}$$