

19_algstr_3 (TMHRWeKEp- KiQVq6HC1zTe18ih1JuVT2U8Vu)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_algstr_3 : \iota$ be given. Let $k1_algstr_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ 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 $k5_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k5_complex1 : \iota$ 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 $k3_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_algstr_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $l4_struct_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l3_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_3 : \iota \Rightarrow o$ be given. Let $v1_algstr_3 : \iota \Rightarrow o$ be given. Let $k2_algstr_3 : \iota$ be given. Let $u3_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $u1_algstr_3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 np_1 X0 = X0) \quad (1)$$

Assume the following.

$$np_1 = k5_struct_0 k3_algstr_3 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k3_algstr_3)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k3_algstr_3)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 k3_algstr_3)) \Rightarrow (\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow \\ & (\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow (\forall X5.(m1_subset_1 \\ & X5 k1_numbers) \Rightarrow (((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = X5))) \Rightarrow (k1_algstr_3 \\ & k3_algstr_3 X0 X1 X2 = k7_real_1 (k8_real_1 X3 X4) X5)))))) \end{aligned} \quad (3)$$

Assume the following.

$$m1_subset_1 \ k1_xboole_0 \ k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 \ X0) \Rightarrow (k2_xcmplx_0 \ X0 \ k6_numbers = X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k8_real_1 \ X0 \ X1 = k3_xcmplx_0 \ X0 \ X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k7_real_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \quad (8)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (9)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (10)$$

Assume the following.

$$k5_complex1 = k1_xboole_0 \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 \ X1 \\ & X0) \wedge ((m1_subset_1 \ X2 \ X0) \wedge ((v1_funct_1 \ X3) \wedge ((v1_funct_2 \ X3 \ (k3_zfmisc_1 \\ & X0 \ X0 \ X0) \ X0) \wedge (m1_subset_1 \ X3 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k3_zfmisc_1 \\ & X0 \ X0 \ X0) \ X0)))))) \Rightarrow (\forall X4.\forall X5.\forall X6.\forall X7. \\ & (g1_algstr_3 \ X0 \ X1 \ X2 \ X3 = g1_algstr_3 \ X4 \ X5 \ X6 \ X7) \Rightarrow ((X0 = X4) \wedge ((X1 = \\ & X5) \wedge ((X2 = X6) \wedge (X3 = X7)))))) \end{aligned} \quad (12)$$

Assume the following.

$$v3_membered \ k1_numbers \quad (13)$$

Assume the following.

$$\forall X0.(l4_struct_0 \ X0) \Rightarrow ((l2_struct_0 \ X0) \wedge (l3_struct_0 \ X0)) \quad (14)$$

Assume the following.

$$\forall X0.(l1_algstr_3 X0) \Rightarrow (l4_struct_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k8_real_1 X0 X1) k1_numbers) \quad (16)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (17)$$

Assume the following.

$$(v1_algstr_3 k3_algstr_3) \wedge (l1_algstr_3 k3_algstr_3) \quad (18)$$

Assume the following.

$$(v1_funct_1 k2_algstr_3) \wedge ((v1_funct_2 k2_algstr_3 (k3_zfmisc_1 k1_numbers k1_numbers k1_numbers) k1_numbers) \wedge (m1_subset_1 k2_algstr_3 (k1_zfmisc_1 (k2_zfmisc_1 (k3_zfmisc_1 k1_numbers k1_numbers k1_numbers) k1_numbers)))) \quad (19)$$

Assume the following.

$$\forall X0.(l3_struct_0 X0) \Rightarrow (k5_struct_0 X0 = u3_struct_0 X0) \quad (20)$$

Assume the following.

$$\forall X0.(l2_struct_0 X0) \Rightarrow (k4_struct_0 X0 = u2_struct_0 X0) \quad (21)$$

Assume the following.

$$k3_algstr_3 = g1_algstr_3 k1_numbers k6_numbers np_1 k2_algstr_3 \quad (22)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow (v3_membered X0) \quad (23)$$

Assume the following.

$$\forall X0.(v3_membered X0) \Rightarrow (v1_membered X0) \quad (24)$$

Assume the following.

$$\forall X0.(v3_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_xreal_0 X1)) \quad (25)$$

Assume the following.

$$\forall X0.(v1_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow (v1_xcmplx_0\ X1)) \quad (26)$$

Assume the following.

$$\forall X0.(l1_algstr_3\ X0)\Rightarrow((v1_algstr_3\ X0)\Rightarrow(X0 = g1_algstr_3 (u1_struct_0\ X0)\ (u2_struct_0\ X0)\ (u3_struct_0\ X0)\ (u1_algstr_3\ X0))) \quad (27)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ (u1_struct_0\ k3_algstr_3))\Rightarrow(k1_algstr_3\ k3_algstr_3\ (k5_struct_0\ k3_algstr_3)\ X0\ (k4_struct_0\ k3_algstr_3) = X0)$$