

t100_jordan2c

(TMYRNnLj8GkYJuHaH78EpshanZSxnBssn5y)

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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 $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ (k15_euclid np_2))) \Rightarrow (k1_rlvect_1 (k15_euclid np_2) X1 X0 = k19_euclid \\ (k4_real_1 X0 (k17_euclid X1)) (k4_real_1 X0 (k18_euclid X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$k4_struct_0 (k15_euclid np_2) = k19_euclid k6_numbers k6_numbers \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ (X0 = k19_euclid (k17_euclid X0) (k18_euclid X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((k17_euclid \\ (k19_euclid X0 X1) = X0) \wedge (k18_euclid (k19_euclid X0 X1) = X1))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee \\ (X0 \in X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (7)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (m1_subset_1 X1 k1_numbers)) \Rightarrow (k4_real_1 X0 X1 = k3_xcmplx_0 X0 X1) \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k1_real_1 X0 = k4_xcmplx_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k1_real_1 (k1_real_1 X0) = X0) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((v1_xcmplx_0 (k4_xcmplx_0 X0)) \wedge (v1_xreal_0 (k4_xcmplx_0 X0))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v3_xxreal_0 X0) \wedge (v1_xreal_0 X0)) \wedge ((\neg v3_xxreal_0 X1) \wedge (v1_xreal_0 X1))) \Rightarrow (\neg v3_xxreal_0 (k3_xcmplx_0 X0 X1)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_xxreal_0 X0) \wedge (v1_xreal_0 X0)) \wedge ((\neg v2_xxreal_0 X1) \wedge (v1_xreal_0 X1))) \Rightarrow (\neg v3_xxreal_0 (k3_xcmplx_0 X0 X1)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_xxreal_0 X0) \wedge (v1_xreal_0 X0)) \wedge ((\neg v3_xxreal_0 X1) \wedge (v1_xreal_0 X1))) \Rightarrow (\neg v2_xxreal_0 (k3_xcmplx_0 X1 X0)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_xxreal_0 X0) \wedge (v1_xreal_0 X0)) \wedge ((\neg v3_xxreal_0 X1) \wedge (v1_xreal_0 X1))) \Rightarrow (\neg v2_xxreal_0 (k3_xcmplx_0 X0 X1)) \quad (16)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (17)$$

Assume the following.

$$\forall X0.((\neg v3_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0)) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (\neg v2_xxreal_0 \ (k4_xcmplx_0 \ X0))) \quad (18)$$

Assume the following.

$$\forall X0.((\neg v2_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0)) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (\neg v3_xxreal_0 \ (k4_xcmplx_0 \ X0))) \quad (19)$$

Assume the following.

$$\forall X0. \forall X1.((v1_xreal_0 \ X0) \wedge (m1_subset_1 \ X1 \ k1_numbers)) \Rightarrow (m1_subset_1 \ (k4_real_1 \ X0 \ X1) \ k1_numbers) \quad (20)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (m1_subset_1 \ (k1_real_1 \ X0) \ k1_numbers) \quad (21)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ (u1_struct_0 \ (k15_euclid \ np_2))) \Rightarrow (m1_subset_1 \ (k18_euclid \ X0) \ k1_numbers) \quad (22)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ (u1_struct_0 \ (k15_euclid \ np_2))) \Rightarrow (m1_subset_1 \ (k17_euclid \ X0) \ k1_numbers) \quad (23)$$

Assume the following.

$$\forall X0. \forall X1.((v1_xreal_0 \ X0) \wedge (m1_subset_1 \ X1 \ k1_numbers)) \Rightarrow (k4_real_1 \ X0 \ X1 = k4_real_1 \ X1 \ X0) \quad (24)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 \ X0) \wedge ((v1_xxreal_0 \ X0) \wedge (\neg v3_xxreal_0 \ X0))) \Rightarrow ((v1_xxreal_0 \ X0) \wedge (v2_xxreal_0 \ X0)) \quad (25)$$

Assume the following.

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow (v1_xxreal_0 \ X0) \quad (26)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 \ X0) \wedge (v2_xxreal_0 \ X0)) \Rightarrow ((\neg v1_xboole_0 \ X0) \wedge ((v1_xxreal_0 \ X0) \wedge (\neg v3_xxreal_0 \ X0))) \quad (27)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xreal_0 \ X0) \quad (28)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (((k17_euclid X0 = k18_euclid \\ & X1) \wedge ((k1_real_1 (k18_euclid X0) = k17_euclid X1) \wedge (X0 = k1_rlvect_1 \\ & (k15_euclid np_2) X1 X2))) \Rightarrow ((k17_euclid X0 = k6_numbers) \wedge ((k18_euclid \\ & X0 = k6_numbers) \wedge (X0 = k4_struct_0 (k15_euclid np_2))))))) \end{aligned}$$