

t19_jgraph_5
(TMVYj3gcSLUuCC2hA1c3RvXn3UHsJir6A1f)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_jgraph_4 : \iota \Rightarrow \iota$ 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 $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_square_1 : \iota \Rightarrow \iota$ be given. Let $k4_square_1 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ 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.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 X1 (k13_complex1 \\ & (k17_euclid X0) (k12_euclid X0))) \Rightarrow ((r1_xxreal_0 (k18_euclid \\ & X0) k6_numbers) \vee (k3_funct_2 (u1_struct_0 (k15_euclid np_2)) \\ & (u1_struct_0 (k15_euclid np_2)) (k5_jgraph_4 X1) X0 = k19_euclid \\ & (k8_real_1 (k12_euclid X0) (k13_complex1 (k6_xcmplx_0 (k13_complex1 \\ & (k17_euclid X0) (k12_euclid X0)) X1) (k9_real_1 np_1 X1))) (k8_real_1 \\ & (k12_euclid X0) (k7_square_1 (k9_real_1 np_1) (k4_square_1 (k13_complex1 \\ & (k6_xcmplx_0 (k13_complex1 (k17_euclid X0) (k12_euclid X0)) X1) \\ & (k9_real_1 np_1 X1)))))) \wedge ((r1_xxreal_0 (k18_euclid X0) k6_numbers) \Rightarrow \\ & (k3_funct_2 (u1_struct_0 (k15_euclid np_2)) (u1_struct_0 (k15_euclid \\ & np_2)) (k5_jgraph_4 X1) X0 = X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow (\neg(\neg r1_xxreal_0 X0 (k1_real_1 \\ & np_1)) \wedge (\neg r1_xxreal_0 np_1 X0) \wedge (\neg r1_xxreal_0 (k18_euclid \\ & X1) k6_numbers) \wedge (\exists X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ & np_2))) \wedge ((X2 = k3_funct_2 (u1_struct_0 (k15_euclid np_2)) (\\ & u1_struct_0 (k15_euclid np_2)) (k5_jgraph_4 X0) X1) \wedge (r1_xxreal_0 \\ & (k18_euclid X2) k6_numbers)))))) \end{aligned} \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (v1_xreal_0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow (m1_subset_1 (k18_euclid X0) k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow ((r1_xxreal_0 X0 X1) \vee (r1_xxreal_0 X1 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow ((r1_xxreal_0 k6_numbers \\ & (k18_euclid X1)) \Rightarrow ((r1_xxreal_0 X0 (k1_real_1 np_1)) \vee ((r1_xxreal_0 \\ & np_1 X0) \vee (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ & np_2))) \Rightarrow ((X2 = k3_funct_2 (u1_struct_0 (k15_euclid np_2)) (\\ & u1_struct_0 (k15_euclid np_2)) (k5_jgraph_4 X0) X1) \Rightarrow (r1_xxreal_0 \\ & k6_numbers (k18_euclid X2)))))) \end{aligned}$$