

t47_jgraph_7 (TM-
MGxRZthz6Fxhe9LRaxSAs5xMT2RMy1Jp8)

October 27, 2020

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 $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_jordan17 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_sppol_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\ & (r1_xxreal_0 X0 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X2.(v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\forall X4. \\ & (v1_xreal_0 X4) \Rightarrow (\forall X5.(v1_xreal_0 X5) \Rightarrow (((k18_euclid X0 = \\ & X4) \wedge ((k18_euclid X1 = X4) \wedge (r1_xxreal_0 (k17_euclid X0) X3))) \Rightarrow \\ & ((r1_xxreal_0 X3 X2) \vee ((r1_xxreal_0 X5 X4) \vee ((r1_xxreal_0 (k17_euclid \\ & X1) X2) \vee ((r1_xxreal_0 (k17_euclid X0) (k17_euclid X1)) \vee (r1_jordan6 \\ & (k1_sppol_2 X2 X3 X4 X5) X0 X1)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X2.(v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\forall X4. \\ & (v1_xreal_0 X4) \Rightarrow (\forall X5.(v1_xreal_0 X5) \Rightarrow (((k17_euclid X0 = \\ & X3) \wedge ((k18_euclid X1 = X4) \wedge ((r1_xxreal_0 X4 (k18_euclid X0)) \wedge \\ & (r1_xxreal_0 (k18_euclid X0) X5) \wedge (r1_xxreal_0 (k17_euclid X1) \\ & X3)))))) \Rightarrow ((r1_xxreal_0 X3 X2) \vee ((r1_xxreal_0 X5 X4) \vee ((r1_xxreal_0 \\ & (k17_euclid X1) X2) \vee (r1_jordan6 (k1_sppol_2 X2 X3 X4 X5) X0 X1)))))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_xreal_0 X0)\wedge \\ & ((v1_xreal_0 X1)\wedge((v1_xreal_0 X2)\wedge(v1_xreal_0 X3))))\Rightarrow(m1_subset_1 \\ & (k1_sppol_2 X0 X1 X2 X3) (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2)))\Rightarrow \\ & (m1_subset_1 (k17_euclid X0) k1_numbers) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ & np_2))))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ & np_2))))\Rightarrow(\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\ & np_2))))\Rightarrow(\forall X4.(m1_subset_1 X4 (u1_struct_0 (k15_euclid \\ & np_2))))\Rightarrow((r1_jordan17 X0 X1 X2 X3 X4)\Leftrightarrow(\neg(\neg(r1_jordan6 X0 X1 X2)\wedge \\ & ((r1_jordan6 X0 X2 X3)\wedge(r1_jordan6 X0 X3 X4))))\wedge(\neg(r1_jordan6 \\ & X0 X2 X3)\wedge((r1_jordan6 X0 X3 X4)\wedge(r1_jordan6 X0 X4 X1)))\wedge(\neg(r1_jordan6 \\ & X0 X3 X4)\wedge((r1_jordan6 X0 X4 X1)\wedge(r1_jordan6 X0 X1 X2)))\wedge(\neg(r1_jordan6 \\ & X0 X4 X1)\wedge((r1_jordan6 X0 X1 X2)\wedge(r1_jordan6 X0 X2 X3)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(\\ & (r1_xxreal_0 X0 X1)\vee(r1_xxreal_0 X1 X0)) \end{aligned} \quad (7)$$

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

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2)))\Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))))\Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))))\Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2))))\Rightarrow \\ & (\forall X4.(v1_xreal_0 X4)\Rightarrow(\forall X5.(v1_xreal_0 X5)\Rightarrow(\forall X6. \\ & (v1_xreal_0 X6)\Rightarrow(\forall X7.(v1_xreal_0 X7)\Rightarrow(((k17_euclid X0 = \\ & X5)\wedge((k18_euclid X1 = X6)\wedge((k18_euclid X2 = X6)\wedge((k18_euclid X3 = \\ & X6)\wedge((r1_xxreal_0 X6 (k18_euclid X0))\wedge((r1_xxreal_0 (k18_euclid \\ & X0) X7)\wedge(r1_xxreal_0 (k17_euclid X1) X5))))))\Rightarrow((r1_xxreal_0 \\ & X5 X4)\vee((r1_xxreal_0 X7 X6)\vee((r1_xxreal_0 (k17_euclid X1) (k17_euclid \\ & X2))\vee((r1_xxreal_0 (k17_euclid X2) (k17_euclid X3))\vee((r1_xxreal_0 \\ & (k17_euclid X3) X4)\vee(r1_jordan17 (k1_sppol_2 X4 X5 X6 X7) X0 X1 X2 \\ & X3)))))))))) \end{aligned}$$