t63_jgraph_7 (TMbk5RWWZrWHBk6E3ShFkmL8ZHBCa76vgcP)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ 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 $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_topmetr : \iota$ be given. Let $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_jgraph\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17\_euclid : \iota \Rightarrow \iota$ be given. Let $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xreal\_0\ X2) \Rightarrow (\forall X3.(v1\_xreal\_0\ X3) \Rightarrow (\forall X4.((v1\_funct\_1\ X4) \wedge ((v1\_funct\_2\ X4\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))))))) \Rightarrow (\forall X5.((v1\_funct\_1\ X5) \wedge ((v1\_funct\_2\ X5\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \wedge (m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))))) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ k5\_topmetr)) \Rightarrow (\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ k5\_topmetr)) \Rightarrow (((r2\_funct\_2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X4\ (k2\_jgraph\_2\ (k10\_real\_1\ np\_\_2\ (k6\_xcmplx\_0\ X1\ X0))\ (k4\_xcmplx\_0\ (k7\_xcmplx\_0\ (k2\_xcmplx\_0\ X1\ X0)\ (k6\_xcmplx\_0\ X1\ X0)))\ (k10\_real\_1\ np\_\_2\ (k6\_xcmplx\_0\ X3\ X2))\ (k4\_xcmplx\_0\ (k7\_xcmplx\_0\ (k2\_xcmplx\_0\ X3\ X2)\ (k6\_xcmplx\_0\ X3\ X2))))) \wedge ((r1\_xxreal\_0\ X2\ (k18\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X6))) \wedge ((r1\_xxreal\_0\ (k18\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X6))\ X3) \wedge ((r1\_xxreal\_0\ X0\ (k17\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X7))) \wedge (r1\_xxreal\_0\ (k17\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X7))\ X1))))) \Rightarrow ((r1\_xxreal\_0\ X1\ X0) \vee ((r1\_xxreal\_0\ X3\ X2) \vee ((r1\_xxreal\_0\ (k1\_real\_1\ np\_\_1)\ (k18\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_partfun1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X4)\ X6))) \wedge ((r1\_xxreal\_0\ (k18\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_partfun1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X4)\ X6))\ np\_\_1) \wedge ((r1\_xxreal\_0\ (k1\_real\_1\ np\_\_1)\ (k17\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_partfun1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X4)\ X7))) \wedge (r1\_xxreal\_0\ (k17\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_partfun1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X4)\ X7))\ np\_\_1)))))))))))))) \tag{1}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.(v1\_xreal\_0\ X2)\Rightarrow(\forall X3.(v1\_xreal\_0\ X3)\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge((v1\_funct\_2\ X4\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))))))\Rightarrow(\forall X5.((v1\_funct\_1\ X5)\wedge((v1\_funct\_2\ X5\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))))))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ k5\_topmetr))\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ k5\_topmetr))\Rightarrow(((r2\_funct\_2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X4\ (k2\_jgraph\_2\ (k10\_real\_1\ np\_\_2\ (k6\_xcmplx\_0\ X1\ X0))\ (k4\_xcmplx\_0\ (k7\_xcmplx\_0\ (k2\_xcmplx\_0\ X1\ X0)\ (k6\_xcmplx\_0\ X1\ X0)))\ (k10\_real\_1\ np\_\_2\ (k6\_xcmplx\_0\ X3\ X2))\ (k4\_xcmplx\_0\ (k7\_xcmplx\_0\ (k2\_xcmplx\_0\ X3\ X2)\ (k6\_xcmplx\_0\ X3\ X2)))))\wedge((r1\_xxreal\_0\ X0\ (k17\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X6)))\wedge((r1\_xxreal\_0\ (k17\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X6))\ X1)\wedge((r1\_xxreal\_0\ X2\ (k18\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X7)))\wedge(r1\_xxreal\_0\ (k18\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X7))\ X3)))))\Rightarrow((r1\_xxreal\_0\ X1\ X0)\vee((r1\_xxreal\_0\ X3\ X2)\vee((r1\_xxreal\_0\ (k1\_real\_1\ np\_\_1)\ (k17\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_partfun1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X4)\ X6)))\wedge((r1\_xxreal\_0\ (k17\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_partfun1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X4)\ X6))\ np\_\_1)\wedge((r1\_xxreal\_0\ (k1\_real\_1\ np\_\_1)\ (k18\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_partfun1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X4)\ X7)))\wedge(r1\_xxreal\_0\ (k18\_euclid\ (k3\_funct\_2\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k1\_partfun1\ (u1\_struct\_0\ k5\_topmetr)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X5\ X4)\ X7))\ np\_\_1)))))))))))))))$$