

t43_helly

(TMEz8hyd4bTTJC6ATzg6QhbbwA3LS1d1G1K)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_glib_000 : \iota \Rightarrow o$ be given. Let $v3_glib_002 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k3_helly : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v3_glib_002 X0)))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (k6_glib_000 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k6_glib_000 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (k6_glib_000 \\ & X0)) \Rightarrow (k3_helly X0 X1 X2 X3 = k3_helly X0 X2 X1 X3)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v3_glib_002 X0)))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (k6_glib_000 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k6_glib_000 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (k6_glib_000 \\ & X0)) \Rightarrow (k3_helly X0 X1 X2 X3 = k3_helly X0 X1 X3 X2)))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v3_glib_002 X0)))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (k6_glib_000 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k6_glib_000 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (k6_glib_000 \\ & X0)) \Rightarrow (k3_helly X0 X1 X2 X3 = k3_helly X0 X2 X3 X1)))) \end{aligned}$$