# t23_polyeq_3 (TMJb9E6wcHTdDeL2xWWDfQ8CoYjeZSyT7gm)

October 27, 2020

Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_numbers : \iota$ be given. Let $k1\_polyeq\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_square\_1 : \iota \Rightarrow \iota$ be given. Let $k12\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_complex1 : \iota \Rightarrow \iota$ be given. Let $k5\_square\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_complex1 : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k5\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_binop\_2 : \iota \Rightarrow \iota$ be given. Let $k7\_complex1 : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k2\_numbers) \Rightarrow (\neg(k1\_polyeq\_3\ X0 = X1) \wedge ((\neg r1\_xxreal\_0\ k6\_numbers\ (k4\_complex1\ X1)) \wedge ((X0 \neq k3\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k3\_complex1\ X1)\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1))))))\ np\_\_2))\ (k5\_binop\_2\ (k7\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k7\_binop\_2\ (k3\_complex1\ X1))\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1))))))\ np\_\_2)))\ k7\_complex1)) \wedge (X0 \neq k3\_binop\_2\ (k7\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k3\_complex1\ X1)\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1))))))\ np\_\_2))\ (k5\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k7\_binop\_2\ (k3\_complex1\ X1))\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1))))))\ np\_\_2))\ k7\_complex1)))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k2\_numbers)\Rightarrow(\neg(k1\_polyeq\_3\ X0 = X1)\wedge((r1\_xxreal\_0\ k6\_numbers\ (k4\_complex1\ X1))\wedge((X0\neq k3\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k3\_complex1\ X1)\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2))\ (k5\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k7\_binop\_2\ (k3\_complex1\ X1))\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2))\ k7\_complex1))\wedge(X0\neq k3\_binop\_2\ (k7\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k3\_complex1\ X1)\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2)))\ (k5\_binop\_2\ (k7\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k7\_binop\_2\ (k3\_complex1\ X1))\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2)))\ k7\_complex1)))))) \tag{2}$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k2\_numbers)\Rightarrow(\neg(k1\_polyeq\_3\ X0 = X1)\wedge((X0\neq k3\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k3\_complex1\ X1)\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2))\ (k5\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k7\_binop\_2\ (k3\_complex1\ X1))\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2))\ k7\_complex1))\wedge((X0\neq k3\_binop\_2\ (k7\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k3\_complex1\ X1)\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2)))\ (k5\_binop\_2\ (k7\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k7\_binop\_2\ (k3\_complex1\ X1))\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2)))\ k7\_complex1))\wedge((X0\neq k3\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k3\_complex1\ X1)\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2))\ (k5\_binop\_2\ (k7\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k7\_binop\_2\ (k3\_complex1\ X1))\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2)))\ k7\_complex1))\wedge(X0\neq k3\_binop\_2\ (k7\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k3\_complex1\ X1)\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2)))\ (k5\_binop\_2\ (k7\_square\_1\ (k12\_binop\_2\ (k9\_binop\_2\ (k7\_binop\_2\ (k3\_complex1\ X1))\ (k7\_square\_1\ (k9\_binop\_2\ (k5\_square\_1\ (k3\_complex1\ X1))\ (k5\_square\_1\ (k4\_complex1\ X1)))))\ np\_\_2))\ k7\_complex1)))))))$$