

t7\_rewrite3  
(TMFQihBMbcg16kFj9AzK9SzDMQvPfiGrd41)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $m1\_rewrite1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.(m1\_rewrite1 X1 X0) \Rightarrow ( \\ \neg(\neg r1\_xxreal\_0 (k3\_finseq\_1 X1) np\_1) \wedge (\forall X2.(m1\_rewrite1 \\ X2 X0) \Rightarrow (\neg(k7\_finseq\_1 (k9\_finseq\_1 (k1\_funct\_1 X1 np\_1)) X2 = \\ X1) \wedge (k2\_xcmplx\_0 (k3\_finseq\_1 X2) np\_1 = k3\_finseq\_1 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(v7\_ordinal1 X1) \Rightarrow (\forall X2.((v1\_relat\_1 \\ X2) \wedge ((v1\_funct\_1 X2) \wedge (v1\_finseq\_1 X2))) \Rightarrow ((X1 \in k4\_finseq\_1 X2) \Rightarrow \\ (k1\_funct\_1 (k7\_finseq\_1 (k9\_finseq\_1 X0) X2) (k2\_xcmplx\_0 X1 \\ np\_1) = k1\_funct\_1 X2 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.(m1\_rewrite1 X1 X0) \Rightarrow ( \\ (v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1)))) \quad (3)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.(m1\_rewrite1 X1 X0) \Rightarrow ( \\ \neg(\neg r1\_xxreal\_0 (k3\_finseq\_1 X1) np\_1) \wedge (\forall X2.(m1\_rewrite1 \\ X2 X0) \Rightarrow (\neg(k2\_xcmplx\_0 (k3\_finseq\_1 X2) np\_1 = k3\_finseq\_1 X1) \wedge \\ (\forall X3.(v7\_ordinal1 X3) \Rightarrow ((X3 \in k4\_finseq\_1 X2) \Rightarrow (k1\_funct\_1 \\ X2 X3 = k1\_funct\_1 X1 (k2\_xcmplx\_0 X3 np\_1)))))))))) \end{aligned}$$