

t16\_fib\_num3  
(TMP1AqDMXcxbu3CJXkohYmU7QJ2NpjMvuwp)

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Let  $k1\_fib\_num3 : \iota \Rightarrow \iota$  be given. Let  $np\_4 : \iota$  be given. Let  $np\_7 : \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Assume the following.

$$k1\_fib\_num3\ np\_3 = np\_4 \tag{1}$$

Assume the following.

$$k1\_fib\_num3\ np\_2 = np\_3 \tag{2}$$

Assume the following.

$$\begin{aligned} & (k1\_fib\_num3\ k6\_numbers = np\_2) \wedge ((k1\_fib\_num3\ np\_1 = np\_1) \wedge \\ & (\forall X0.(v7\_ordinal1\ X0) \Rightarrow (k1\_fib\_num3\ (k2\_nat\_1\ (k1\_nat\_1 \\ & X0\ np\_1)\ np\_1) = k2\_nat\_1\ (k1\_fib\_num3\ X0)\ (k1\_fib\_num3\ (k1\_nat\_1 \\ & X0\ np\_1)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0\ np\_3) \wedge (m2\_subset\_1\ np\_3\ k1\_numbers\ k5\_numbers)) \wedge \\ & ((m1\_subset\_1\ np\_3\ k5\_numbers) \wedge (m1\_subset\_1\ np\_3\ k1\_numbers)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0\ np\_2) \wedge (m2\_subset\_1\ np\_2\ k1\_numbers\ k5\_numbers)) \wedge \\ & ((m1\_subset\_1\ np\_2\ k5\_numbers) \wedge (m1\_subset\_1\ np\_2\ k1\_numbers)) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0\ np\_1) \wedge (m2\_subset\_1\ np\_1\ k1\_numbers\ k5\_numbers)) \wedge \\ & ((m1\_subset\_1\ np\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_1\ k1\_numbers)) \end{aligned} \tag{6}$$

Assume the following.

$$k2\_xcmplx\_0 \ np\_3 \ np\_4 = np\_7 \quad (7)$$

Assume the following.

$$k2\_xcmplx\_0 \ np\_3 \ np\_1 = np\_4 \quad (8)$$

Assume the following.

$$k2\_xcmplx\_0 \ np\_2 \ np\_1 = np\_3 \quad (9)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 \ X0 \ k5\_numbers)\wedge(v7\_ordinal1 \ X1))\Rightarrow(k2\_nat\_1 \ X0 \ X1 = k2\_xcmplx\_0 \ X0 \ X1) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1 \ X0)\wedge(m1\_subset\_1 \ X1 \ k5\_numbers))\Rightarrow(k1\_nat\_1 \ X0 \ X1 = k2\_xcmplx\_0 \ X0 \ X1) \quad (12)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 \ X0)\Rightarrow(m1\_subset\_1 \ (k1\_fib\_num3 \ X0) \ k5\_numbers) \quad (13)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k4\_ordinal1)\Rightarrow(v7\_ordinal1 \ X0) \quad (14)$$

**Theorem 1**  $k1\_fib\_num3 \ np\_4 = np\_7$ .