

t1\_fib\_num2  
(TMLZY9gJ71sGHbUXvaLpc72Le8zJzWJbzxc)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  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  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_nat\_d : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_3 : \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2. \\ & (v7\_ordinal1\ X2) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow (k7\_nat\_d\ (k2\_xcmplx\_0 \\ & X1\ X2)\ X0 = k2\_nat\_1\ (k7\_nat\_d\ X1\ X0)\ X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2. \\ & (v7\_ordinal1\ X2) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow (k7\_nat\_d\ (k2\_xcmplx\_0 \\ & X1\ X2)\ X0 = k6\_xcmplx\_0\ (k2\_xcmplx\_0\ X1\ X2)\ X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v7\_ordinal1\ X0)) \Rightarrow (\neg (X0 \neq np\_1) \wedge \\ & (r1\_xxreal\_0\ X0\ np\_1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0\ np\_2) \wedge (m2\_subset\_1\ np\_2\ k1\_numbers\ k5\_numbers)) \wedge \\ & ((m1\_subset\_1\ np\_2\ k5\_numbers) \wedge (m1\_subset\_1\ np\_2\ k1\_numbers)) \end{aligned} \quad (4)$$

Assume the following.

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

Assume the following.

$$k6\_xcmplx\_0 \ np\_2 \ np\_1 = np\_1 \quad (6)$$

Assume the following.

$$k2\_xcmplx\_0 \ np\_2 \ np\_1 = np\_3 \quad (7)$$

Assume the following.

$$k2\_xcmplx\_0 \ np\_1 \ np\_1 = np\_2 \quad (8)$$

Assume the following.

$$r1\_xxreal\_0 \ np\_1 \ np\_2 \quad (9)$$

Assume the following.

$$r1\_xxreal\_0 \ np\_1 \ np\_1 \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1\_xboole\_0 \ X0)\wedge((\neg v1\_xboole\_0 \ X1)\wedge \\ (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0))))\Rightarrow(\forall X2.(m2\_subset\_1 \\ X2 \ X0 \ X1)\Leftrightarrow(m1\_subset\_1 \ X2 \ X1)) \end{aligned} \quad (11)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((m1\_subset\_1 \ X0 \ k5\_numbers)\wedge(v7\_ordinal1 \\ X1))\Rightarrow(k2\_nat\_1 \ X0 \ X1 = k2\_xcmplx\_0 \ X0 \ X1) \end{aligned} \quad (13)$$

Assume the following.

$$(\neg v1\_xboole\_0 \ k4\_ordinal1)\wedge(v3\_ordinal1 \ k4\_ordinal1) \quad (14)$$

Assume the following.

$$v3\_membered \ k1\_numbers \quad (15)$$

Assume the following.

$$\neg v1\_xboole\_0 \ k1\_numbers \quad (16)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1\_xboole\_0 \ X0)\wedge((\neg v1\_xboole\_0 \ X1)\wedge \\ (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0))))\Rightarrow(\forall X2.(m2\_subset\_1 \\ X2 \ X0 \ X1)\Rightarrow(m1\_subset\_1 \ X2 \ X0)) \end{aligned} \quad (17)$$

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0)\wedge(v1\_xreal\_0 X1))\Rightarrow( (r1\_xreal\_0 X0 X1)\vee(r1\_xreal\_0 X1 X0)) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0)\wedge(v1\_xcmplx\_0 X1))\Rightarrow( k2\_xcmplx\_0 X0 X1 = k2\_xcmplx\_0 X1 X0) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k5\_numbers)\wedge(v7\_ordinal1 X1))\Rightarrow(k2\_nat\_1 X0 X1 = k2\_nat\_1 X1 X0) \quad (21)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1)\Rightarrow(v7\_ordinal1 X0) \quad (22)$$

Assume the following.

$$\forall X0.(v3\_membered X0)\Rightarrow(v1\_membered X0) \quad (23)$$

Assume the following.

$$\forall X0.(v3\_membered X0)\Rightarrow(v2\_membered X0) \quad (24)$$

Assume the following.

$$\forall X0.(v2\_membered X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 X0)\Rightarrow (v1\_xreal\_0 X1)) \quad (25)$$

Assume the following.

$$\forall X0.(v1\_membered X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 X0)\Rightarrow (v1\_xcmplx\_0 X1)) \quad (26)$$

**Theorem 1**

$$\forall X0.((\neg v1\_xboole\_0 X0)\wedge(m2\_subset\_1 X0 k1\_numbers k5\_numbers))\Rightarrow (k2\_nat\_1 (k7\_nat\_d X0 np\_1) np\_2 = k2\_nat\_1 X0 np\_1)$$