

## t14\_fib\_num2

(TMJ5ZK7KEuNuPoDoYzLWH8XgnQdiELmiyWx)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  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  $k6\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v3\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $np\_0 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  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  $v6\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 X1) \wedge (\neg v3\_xxreal\_0 X1) \wedge (\neg v2\_xxreal\_0 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2.(v1\_xreal\_0 X2) \Rightarrow ((r1\_xxreal\_0 X0 X1) \Leftrightarrow (r1\_xxreal\_0 (k2\_xcmplx\_0 X0 X2) (k2\_xcmplx\_0 X1 X2)))))) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (3)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X2)) \Rightarrow (r1\_xxreal\_0 X0 X2)))) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k2\_xcmplx\_0 X0 \ k6\_numbers = X0) \quad (6)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (r1\_xreal\_0 X0 (k2\_xcmplx\_0 X0 X1))) \quad (7)$$

Assume the following.

$$(m2\_subset\_1 \ np\_0 \ k1\_numbers \ k5\_numbers) \wedge ((m1\_subset\_1 \ np\_0 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_0 \ k1\_numbers)) \quad (8)$$

Assume the following.

$$v1\_xboole\_0 \ np\_0 \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (10)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (11)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\exists X0.(v1\_xboole\_0 X0) \wedge ((v1\_xcmplx\_0 X0) \wedge ((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X0))) \quad (14)$$

Assume the following.

$$(\neg v1\_xboole\_0 \ k4\_ordinal1) \wedge (v3\_ordinal1 \ k4\_ordinal1) \quad (15)$$

Assume the following.

$$v6\_membered \ k4\_ordinal1 \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (v1\_xreal\_0 (k2\_xcmplx\_0 X0 X1)) \quad (17)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 \ X0)\wedge(v1\_xcmplx\_0 \ X1))\Rightarrow( \quad (19)$$

$$k2\_xcmplx\_0 \ X0 \ X1 = k2\_xcmplx\_0 \ X1 \ X0)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 \ X0 \ k5\_numbers)\wedge(v7\_ordinal1 \quad (20)$$

$$X1))\Rightarrow(k2\_nat\_1 \ X0 \ X1 = k2\_nat\_1 \ X1 \ X0)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k4\_ordinal1)\Rightarrow(v7\_ordinal1 \ X0) \quad (21)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 \ X0)\Rightarrow(v1\_xxreal\_0 \ X0) \quad (22)$$

Assume the following.

$$\forall X0.((v1\_xxreal\_0 \ X0)\wedge(v2\_xxreal\_0 \ X0))\Rightarrow((\neg v1\_xboole\_0 \quad (23)$$

$$X0)\wedge((v1\_xxreal\_0 \ X0)\wedge(\neg v3\_xxreal\_0 \ X0)))$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 \ X0)\Rightarrow(v1\_xcmplx\_0 \ X0) \quad (24)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 \ X0)\Rightarrow(v1\_xxreal\_0 \ X0) \quad (25)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 \ X0)\Rightarrow(v1\_xreal\_0 \ X0) \quad (26)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k5\_numbers)\Rightarrow(\neg v3\_xxreal\_0 \ X0) \quad (27)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k1\_numbers)\Rightarrow(v1\_xreal\_0 \ X0) \quad (28)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 \ X0)\Rightarrow(\forall X1.(m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \quad (29)$$

$$X0))\Rightarrow(v1\_xboole\_0 \ X1))$$

Assume the following.

$$\forall X0.(v6\_membered \ X0)\Rightarrow(\forall X1.(m1\_subset\_1 \ X1 \ X0)\Rightarrow \quad (30)$$

$$(v7\_ordinal1 \ X1))$$

**Theorem 1**

$$\forall X0.(v7\_ordinal1 \ X0)\Rightarrow(\forall X1.(v7\_ordinal1 \ X1)\Rightarrow(\forall X2. \quad ($$

$$m2\_subset\_1 \ X2 \ k1\_numbers \ k5\_numbers)\Rightarrow(\neg(X2\neq k6\_numbers)\wedge($$

$$r1\_xxreal\_0 \ (k2\_nat\_1 \ X2 \ X0) \ X1)\wedge(r1\_xxreal\_0 \ X1 \ X0))))$$