t54_card_2 (TMEw6KtEp7wm62g3tLEQ9zpXLZkiodzurgQ)

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Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_6 : \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_5 : \iota$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ 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 $k4\_ordinal1 : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xreal\_0\ X2) \Rightarrow (\forall X3.(v1\_xreal\_0\ X3) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X2\ X3)) \Rightarrow (r1\_xxreal\_0\ (k2\_xcmplx\_0\ X0\ X2)\ (k2\_xcmplx\_0\ X1\ X3))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.r1\_xxreal\_0\ (k5\_card\_1\ (k3\_enumset1\ X0\ X1\ X2\ X3\ X4))\ np\_\_5 \tag{2}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (\forall X1.(v1\_finset\_1\ X1) \Rightarrow (r1\_xxreal\_0\ (k5\_card\_1\ (k2\_xboole\_0\ X0\ X1))\ (k2\_nat\_1\ (k5\_card\_1\ X0)\ (k5\_card\_1\ X1)))) \tag{3}$$

Assume the following.

$$\forall X0.k1\_card\_1\ (k1\_tarski\ X0) = np\_\_1 \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xxreal\_0\ X2) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X2)) \Rightarrow (r1\_xxreal\_0\ X0\ X2)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ k4\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5 = k2\_xboole\_0\ (k1\_tarski\ X0)\ (k3\_enumset1\ X1\ X2\ X3\ X4\ X5) \tag{6}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_6)\wedge(m2\_subset\_1\ np\_\_6\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_6\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_6\ k1\_numbers)) \tag{7}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_5)\wedge(m2\_subset\_1\ np\_\_5\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_5\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_5\ k1\_numbers)) \tag{8}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1)\wedge(m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_1\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{9}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_1\ np\_\_5 = np\_\_6 \tag{10}$$

Assume the following.

$$r1\_xxreal\_0\ np\_\_1\ np\_\_1 \tag{11}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{12}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0)\Rightarrow(k5\_card\_1\ X0 = k1\_card\_1\ X0) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k5\_numbers)\wedge(v7\_ordinal1\ X1))\Rightarrow(k2\_nat\_1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ v1\_finset\_1\ (k4\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k2\_xcmplx\_0\ X0\ X1)) \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.v1\_finset\_1\ (k3\_enumset1\ X0\ X1\ X2\ X3\ X4) \tag{17}$$

Assume the following.

$$\forall X0.v1\_finset\_1\ (k1\_tarski\ X0) \tag{18}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (m1\_subset\_1\ (k5\_card\_1\ X0)\ k4\_ordinal1) \tag{19}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{20}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xxreal\_0\ X0) \tag{21}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_xreal\_0\ X0) \tag{22}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \tag{23}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ r1\_xxreal\_0\ (k5\_card\_1\ (k4\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5))\ np\_\_6$$