l36_nat_4 (TMbdb-DzAx8HBATG83CWNrdcZzPVCHXxwF2c)

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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 $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_841 : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k4\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_int\_2 : \iota \Rightarrow o$ be given. Let $np\_\_2 : \iota$ be given. Let $np\_\_3 : \iota$ be given. Let $np\_\_5 : \iota$ be given. Let $np\_\_7 : \iota$ be given. Let $np\_\_11 : \iota$ be given. Let $np\_\_13 : \iota$ be given. Let $np\_\_17 : \iota$ be given. Let $np\_\_19 : \iota$ be given. Let $np\_\_23 : \iota$ 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 $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $k11\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_29 : \iota$ be given. Let $np\_\_0 : \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $v6\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xxreal\_0\ X2) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X2)) \Rightarrow\ (r1\_xxreal\_0\ X0\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg (r1\_xxreal\_0\ k6\_numbers\ X0) \wedge ((\neg r1\_xxreal\_0\ (k11\_binop\_2\ X0\ X0)\ (k11\_binop\_2\ X1\ X1)) \wedge (r1\_xxreal\_0\ X0\ X1)))) \tag{3}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_841) \wedge (m2\_subset\_1\ np\_\_841\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_841\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_841\ k1\_numbers)) \tag{4}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_29)\wedge(m2\_subset\_1\ np\_\_29\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_29\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_29\ k1\_numbers)) \tag{5}$$

Assume the following.

$$v1\_xboole\_0\ np\_\_0 \tag{6}$$

Assume the following.

$$k3\_xcmplx\_0\ np\_\_29\ np\_\_29 = np\_\_841 \tag{7}$$

Assume the following.

$$r1\_xxreal\_0\ np\_\_0\ np\_\_29 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{9}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{10}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k5\_numbers)\wedge(v7\_ordinal1\ X1))\Rightarrow(k4\_nat\_1\ X0\ X1 = k3\_xcmplx\_0\ X0\ X1) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(k11\_binop\_2\ X0\ X1 = k3\_xcmplx\_0\ X0\ X1) \tag{13}$$

Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X0\ np\_\_1)\wedge((\neg r1\_xxreal\_0\ np\_\_29\ X0)\wedge((v1\_int\_2\ X0)\wedge((X0\neq np\_\_2)\wedge((X0\neq np\_\_3)\wedge((X0\neq np\_\_5)\wedge((X0\neq np\_\_7)\wedge((X0\neq np\_\_11)\wedge((X0\neq np\_\_13)\wedge((X0\neq np\_\_17)\wedge((X0\neq np\_\_19)\wedge(X0\neq np\_\_23))))))))))) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k3\_xcmplx\_0\ X0\ X1)) \tag{15}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{16}$$

Assume the following.

$$v6\_membered\ k4\_ordinal1 \tag{17}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{18}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Rightarrow(m1\_subset\_1\ X2\ X0)) \tag{19}$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{20}$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{22}$$

Assume the following.

$$\forall X0.(v6\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow (v7\_ordinal1\ X1)) \tag{23}$$

Theorem 1

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)\Rightarrow((\neg r1\_xxreal\_0\ np\_\_841\ X0)\Rightarrow(\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X1\ np\_\_1)\wedge((r1\_xxreal\_0\ (k4\_nat\_1\ X1\ X1)\ X0)\wedge((v1\_int\_2\ X1)\wedge((X1\neq np\_\_2)\wedge((X1\neq np\_\_3)\wedge((X1\neq np\_\_5)\wedge((X1\neq np\_\_7)\wedge((X1\neq np\_\_11)\wedge((X1\neq np\_\_13)\wedge((X1\neq np\_\_17)\wedge((X1\neq np\_\_19)\wedge(X1\neq np\_\_23)))))))))))))$$