l123_toprealb (TMYmUc4gzDo3pFeeaLeVgQfFjG3pwLEq9iY)

October 27, 2020

Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $k3\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k32\_sin\_cos : \iota$ be given. Let $k1\_xboole\_0 : \iota$ 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 $k5\_numbers : \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k3\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k31\_sin\_cos : \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $v3\_xxreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\begin{gathered}((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge \\ ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers))\end{gathered} \tag{2}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{3}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.((v1\_xxreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (k4\_rcomp\_1 \\ X0\ X1 = k3\_xxreal\_1\ X0\ X1)\end{gathered} \tag{4}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (k3\_rcomp\_1 \\ X0\ X1 = k2\_xxreal\_1\ X0\ X1)\end{gathered} \tag{5}$$

Assume the following.

$$k32\_sin\_cos = k31\_sin\_cos \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (k1\_real\_1\ X0 = k4\_xcmplx\_0\ X0) \quad (7)$$

Assume the following.

$$\exists X0.(v1\_xboole\_0\ X0) \wedge ((v1\_xcmplx\_0\ X0) \wedge ((v1\_xxreal\_0\ X0) \wedge (v1\_xreal\_0\ X0))) \quad (8)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k4\_xcmplx\_0\ (k4\_xcmplx\_0\ X0) = X0) \quad (9)$$

Assume the following.

$$(v1\_xreal\_0\ k31\_sin\_cos) \wedge (v2\_xxreal\_0\ k31\_sin\_cos) \quad (10)$$

Assume the following.

$$\forall X0.((\neg v3\_xxreal\_0\ X0) \wedge (v1\_xreal\_0\ X0)) \Rightarrow ((v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)) \wedge (\neg v2\_xxreal\_0\ (k4\_xcmplx\_0\ X0))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_xreal\_0\ X0) \wedge (v3\_xxreal\_0\ X0)) \wedge ((v1\_xreal\_0\ X1) \wedge (\neg v3\_xxreal\_0\ X1))) \Rightarrow (\neg v1\_xboole\_0\ (k3\_xxreal\_1\ X0\ X1)) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_xreal\_0\ X0) \wedge (\neg v2\_xxreal\_0\ X0)) \wedge ((v1\_xreal\_0\ X1) \wedge (v2\_xxreal\_0\ X1))) \Rightarrow (\neg v1\_xboole\_0\ (k2\_xxreal\_1\ X0\ X1)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (m1\_subset\_1\ (k4\_rcomp\_1\ X0\ X1)\ (k1\_zfmisc\_1\ k1\_numbers)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (m1\_subset\_1\ (k3\_rcomp\_1\ X0\ X1)\ (k1\_zfmisc\_1\ k1\_numbers)) \quad (15)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (m1\_subset\_1\ (k1\_real\_1\ X0)\ k1\_numbers) \quad (16)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xxreal\_0\ X0) \quad (17)$$

Assume the following.

$$\forall X0.((v1\_xxreal\_0\ X0)\wedge(v2\_xxreal\_0\ X0))\Rightarrow((\neg v1\_xboole\_0\ X0)\wedge((v1\_xxreal\_0\ X0)\wedge(\neg v3\_xxreal\_0\ X0))) \tag{18}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{19}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{20}$$

Theorem 1

$$((\neg v1\_xboole\_0\ (k4\_rcomp\_1\ (k1\_real\_1\ np\_\_1)\ np\_\_1))\wedge(m1\_subset\_1\ (k4\_rcomp\_1\ (k1\_real\_1\ np\_\_1)\ np\_\_1)\ (k1\_zfmisc\_1\ k1\_numbers)))\wedge((\neg v1\_xboole\_0\ (k3\_rcomp\_1\ k6\_numbers\ k32\_sin\_cos))\wedge(m1\_subset\_1\ (k3\_rcomp\_1\ k6\_numbers\ k32\_sin\_cos)\ (k1\_zfmisc\_1\ k1\_numbers)))$$