t14_nat_4 (TMKiufVWQ6vpdJjsbiYVzrxioibUUpvU9v2)

October 27, 2020

Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_int\_2 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ 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 $k4\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_nat\_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((\neg(\neg v1\_int\_2\ X0) \wedge ((\neg r1\_xxreal\_0\ X0\ np\_\_1) \wedge (\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers) \Rightarrow (\neg(r1\_nat\_d\ X1\ X0) \wedge ((\neg r1\_xxreal\_0\ X1\ np\_\_1) \wedge ((r1\_xxreal\_0\ (k4\_nat\_1\ X1\ X1)\ X0) \wedge (v1\_int\_2\ X1)))))))) \wedge (\neg(\neg(\neg r1\_xxreal\_0\ X0\ np\_\_1) \wedge (\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers) \Rightarrow (\neg(r1\_nat\_d\ X1\ X0) \wedge ((\neg r1\_xxreal\_0\ X1\ np\_\_1) \wedge ((r1\_xxreal\_0\ (k4\_nat\_1\ X1\ X1)\ X0) \wedge (v1\_int\_2\ X1)))))) \wedge (v1\_int\_2\ X0)))) \tag{1}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((v1\_int\_2\ X0) \Leftrightarrow ((\neg r1\_xxreal\_0\ X0\ np\_\_1) \wedge (\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X1\ np\_\_1) \wedge ((r1\_xxreal\_0\ (k4\_nat\_1\ X1\ X1)\ X0) \wedge ((v1\_int\_2\ X1) \wedge (r1\_nat\_d\ X1\ X0))))))))$$