

t14_nat_5

(TMPBNY2cZqAoi3sgbPKo3uRbgFSuQTCZmDf)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_moebius1 : \iota \Rightarrow \iota$ be given. Let $r1_int_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_nat_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow (((r1_nat_d X0 X1) \wedge (r1_nat_d X1 X2)) \Rightarrow (r1_nat_d \\ & \quad X0 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\\ & X1 \in k3_moebius1 X0) \Leftrightarrow ((\neg r1_xxreal_0 X1 k6_numbers) \wedge (r1_nat_d \\ & \quad X1 X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\\ & r1_int_2 X0 X1) \Leftrightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (((r1_nat_d X2 X0) \wedge \\ & \quad (r1_nat_d X2 X1)) \Rightarrow (X2 = np_1)))))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow (((X2 \in k3_moebius1 \\ & X0) \wedge ((X3 \in k3_moebius1 X1) \wedge (r1_int_2 X0 X1)) \Rightarrow (r1_int_2 X2 X3)))))) \end{aligned}$$