

t7_arytm_2 (TMHaU- jaR4WC6wNGG3Sd317UUvTrTt9WrDBE)

October 27, 2020

Let $v6_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_arytm_3 : \iota$ be given. Let $r3_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \neg (X0 \in ReplSep (toset (\lambda X2 : \iota. m1_subset_1 \\
& \quad X2 (k1_zfmisc_1 k5_arytm_3))) (\lambda X2 : \iota. \forall X3. (m1_subset_1 \\
& \quad X3 k5_arytm_3) \Rightarrow ((X3 \in X2) \Rightarrow ((\forall X4. (m1_subset_1 X4 k5_arytm_3) \Rightarrow \\
& \quad ((r3_arytm_3 X4 X3) \Rightarrow (X4 \in X2))) \wedge (\exists X4. (m1_subset_1 X4 k5_arytm_3) \wedge \\
& \quad ((X4 \in X2) \wedge (\neg r3_arytm_3 X4 X3)))))) (\lambda X2 : \iota. X2)) \wedge ((X1 \in ReplSep \\
& \quad (toset (\lambda X2 : \iota. m1_subset_1 X2 (k1_zfmisc_1 k5_arytm_3))) \\
& \quad (\lambda X2 : \iota. \forall X3. (m1_subset_1 X3 k5_arytm_3) \Rightarrow ((X3 \in X2) \Rightarrow \\
& \quad ((\forall X4. (m1_subset_1 X4 k5_arytm_3) \Rightarrow ((r3_arytm_3 X4 X3) \Rightarrow \\
& \quad (X4 \in X2))) \wedge (\exists X4. (m1_subset_1 X4 k5_arytm_3) \wedge ((X4 \in X2) \wedge \\
& \quad (\neg r3_arytm_3 X4 X3)))))) (\lambda X2 : \iota. X2)) \wedge ((\neg r1_tarski X0 X1) \wedge \\
& \quad (\neg r1_tarski X1 X0)))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (r3_xboole_0 X0 X1) \Leftrightarrow ((r1_tarski X0 X1) \vee (r1_tarski X1 X0)) \tag{2}$$

Assume the following.

$$\forall X0. (v6_ordinal1 X0) \Leftrightarrow (\forall X1. \forall X2. ((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (r3_xboole_0 X1 X2)) \tag{3}$$

Theorem 1

$$\begin{aligned}
& v6_ordinal1 (ReplSep (toset (\lambda X0 : \iota. m1_subset_1 X0 (k1_zfmisc_1 \\
& \quad k5_arytm_3))) (\lambda X0 : \iota. \forall X1. (m1_subset_1 X1 k5_arytm_3) \Rightarrow \\
& \quad ((X1 \in X0) \Rightarrow ((\forall X2. (m1_subset_1 X2 k5_arytm_3) \Rightarrow ((r3_arytm_3 \\
& \quad X2 X1) \Rightarrow (X2 \in X0))) \wedge (\exists X2. (m1_subset_1 X2 k5_arytm_3) \wedge ((\\
& \quad X2 \in X0) \wedge (\neg r3_arytm_3 X2 X1)))))) (\lambda X0 : \iota. X0))
\end{aligned}$$