

t13_integr16

(TMPgsP9iqsAuopuonobN1QocsPBkW1PJLPP)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_measure5 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_comseq_2 : \iota \Rightarrow o$ be given. Let $k5_comseq_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_comseq_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (r1_tarski X0 X1) \Rightarrow ((r1_tarski \\ & (k2_zfmisc_1 X0 X2) (k2_zfmisc_1 X1 X2)) \wedge (r1_tarski (k2_zfmisc_1 \\ & X2 X0) (k2_zfmisc_1 X2 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))) \Rightarrow \\ & (\forall X1. ((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k1_numbers k2_numbers)))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 X0 k2_numbers) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 \\ & k2_numbers)))))) \Rightarrow ((X1 = X2) \Rightarrow ((k5_comseq_3 k1_numbers X1 = k5_comseq_3 \\ & X0 X2) \wedge (k6_comseq_3 k1_numbers X1 = k6_comseq_3 X0 X2)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ k1_numbers k2_numbers)))) \Rightarrow ((v1_comseq_2 X0) \Leftrightarrow ((v1_comseq_2 \\ (k5_comseq_3 k1_numbers X0)) \wedge (v1_comseq_2 (k6_comseq_3 k1_numbers \\ X0)))) \end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_measure5 X0) \wedge (m1_subset_1 \\ X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge \\ ((v1_funct_2 X1 X0 k2_numbers) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (\\ k2_zfmisc_1 X0 k2_numbers)))))) \Rightarrow ((v1_comseq_2 X1) \Leftrightarrow ((v1_comseq_2 \\ (k5_comseq_3 X0 X1)) \wedge (v1_comseq_2 (k6_comseq_3 X0 X1)))) \end{aligned}$$