

t19_integra3

(TMUjxfhJSqAc7BwKZupuCh5C4vXLsqoLm59)

October 27, 2020

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 $v1_xboole_0 : \iota \Rightarrow o$ 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 $m1_integral : \iota \Rightarrow \iota \Rightarrow o$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_comseq_2 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_seq_4 : \iota \Rightarrow \iota$ be given. Let $k1_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k4_seq_4 : \iota \Rightarrow \iota$ be given. Let $k2_integral : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & ((\neg v1_xboole_0 X1) \wedge ((v2_measure5 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & k1_numbers)))) \Rightarrow (\forall X2.(m1_integral X2 X1) \Rightarrow ((X0 \in k4_finseq_1 \\ & X2) \Rightarrow (r1_tarski (k2_integral X1 X2 X0) X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_measure5 X0) \wedge (m1_subset_1 \\
& X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\
& ((v2_measure5 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 k1_numbers)))) \Rightarrow \\
& (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 k1_numbers) \wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))))) \Rightarrow \\
& (((v1_comseq_2 (k2_partfun1 X0 k1_numbers X2 X0)) \wedge (r1_tarski \\
& X1 X0)) \Rightarrow ((r1_xxreal_0 (k5_seq_4 (k1_rvsum_1 X2)) (k5_seq_4 (k1_rvsum_1 \\
& (k2_partfun1 X0 k1_numbers X2 X1)))) \wedge ((r1_xxreal_0 (k5_seq_4 \\
& (k1_rvsum_1 X2)) (k4_seq_4 (k1_rvsum_1 (k2_partfun1 X0 k1_numbers \\
& X2 X1)))) \wedge ((r1_xxreal_0 (k4_seq_4 (k1_rvsum_1 (k2_partfun1 X0 \\
& k1_numbers X2 X1))) (k4_seq_4 (k1_rvsum_1 X2))) \wedge (r1_xxreal_0 \\
& (k5_seq_4 (k1_rvsum_1 (k2_partfun1 X0 k1_numbers X2 X1))) (k4_seq_4 \\
& (k1_rvsum_1 X2))))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \tag{5}$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \tag{6}$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 X0) \wedge ((v2_measure5 \\
& X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)))) \wedge ((m1_integral \\
& X1 X0) \wedge (v7_ordinal1 X2))) \Rightarrow ((\neg v1_xboole_0 (k2_integral X0 X1 X2)) \wedge \\
& ((v2_measure5 (k2_integral X0 X1 X2)) \wedge (m1_subset_1 (k2_integral \\
& X0 X1 X2) (k1_zfmisc_1 k1_numbers))))
\end{aligned} \tag{8}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \tag{9}$$

Theorem 1

$$\begin{aligned}
& \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& ((\neg v1_xboole_0 X1) \wedge ((v2_measure5 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\
& k1_numbers)))) \Rightarrow (\forall X2. (m1_integral X2 X1) \Rightarrow (\forall X3. \\
& ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X1 k1_numbers) \wedge (m1_subset_1 \\
& X3 (k1_zfmisc_1 (k2_zfmisc_1 X1 k1_numbers)))))) \Rightarrow (((v1_comseq_2 \\
& (k2_partfun1 X1 k1_numbers X3 X1)) \wedge (X0 \in k4_finseq_1 X2)) \Rightarrow (r1_xxreal_0 \\
& (k5_seq_4 (k1_rvsum_1 X3)) (k4_seq_4 (k1_rvsum_1 (k2_partfun1 \\
& X1 k1_numbers X3 (k2_integral X1 X2 X0))))))
\end{aligned}$$