

t22_integra6

(TMb92oqiA6uqHT8tj4wME4dPp6pFLehAdMp)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_integra5 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_comseq_2 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k56_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_complex1 : \iota \Rightarrow \iota$ be given. Let $k4_integra5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\
 & (v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\forall X4.((v1_funct_1 \\
 & X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\
 & ((r1_xxreal_0 X0 X1) \wedge ((r1_xxreal_0 X2 X3) \wedge ((r1_integra5 (k3_integra5 \\
 & X0 X1) X4) \wedge ((v1_comseq_2 (k2_partfun1 k1_numbers k1_numbers X4 \\
 & (k3_integra5 X0 X1))) \wedge ((r1_tarski (k3_integra5 X0 X1) (k9_xtuple_0 \\
 & X4)) \wedge ((X2 \in k3_integra5 X0 X1) \wedge (X3 \in k3_integra5 X0 X1)))))) \Rightarrow (\\
 & r1_xxreal_0 (k18_complex1 (k4_integra5 X3 X2 X4)) (k4_integra5 \\
 & X2 X3 (k56_valued_1 k1_numbers k1_numbers X4))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\
& (v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\forall X4.((v1_funct_1 \\
& X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))))) \Rightarrow \\
& (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X2 X3) \wedge ((r1_integra5 (k3_integra5 \\
& X0 X1) X4) \wedge ((v1_comseq_2 (k2_partfun1 k1_numbers k1_numbers X4 \\
& (k3_integra5 X0 X1))) \wedge (r1_tarski (k3_integra5 X0 X1) (k9_xtuple_0 \\
& X4)) \wedge ((X2 \in k3_integra5 X0 X1) \wedge (X3 \in k3_integra5 X0 X1)))))) \Rightarrow (\\
& (r1_tarski (k3_integra5 X2 X3) (k9_xtuple_0 (k56_valued_1 k1_numbers \\
& k1_numbers X4))) \wedge ((r1_integra5 (k3_integra5 X2 X3) (k56_valued_1 \\
& k1_numbers k1_numbers X4)) \wedge ((v1_comseq_2 (k2_partfun1 k1_numbers \\
& k1_numbers (k56_valued_1 k1_numbers k1_numbers X4) (k3_integra5 \\
& X2 X3))) \wedge (r1_xxreal_0 (k18_complex1 (k4_integra5 X2 X3 X4) (k4_integra5 \\
& X2 X3 (k56_valued_1 k1_numbers k1_numbers X4))))))))))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\
& (v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\forall X4.((v1_funct_1 \\
& X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))))) \Rightarrow \\
& (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X2 X3) \wedge ((r1_integra5 (k3_integra5 \\
& X0 X1) X4) \wedge ((v1_comseq_2 (k2_partfun1 k1_numbers k1_numbers X4 \\
& (k3_integra5 X0 X1))) \wedge (r1_tarski (k3_integra5 X0 X1) (k9_xtuple_0 \\
& X4)) \wedge ((X2 \in k3_integra5 X0 X1) \wedge (X3 \in k3_integra5 X0 X1)))))) \Rightarrow (\\
& (r1_tarski (k3_integra5 X2 X3) (k9_xtuple_0 (k56_valued_1 k1_numbers \\
& k1_numbers X4))) \wedge ((r1_integra5 (k3_integra5 X2 X3) (k56_valued_1 \\
& k1_numbers k1_numbers X4)) \wedge ((v1_comseq_2 (k2_partfun1 k1_numbers \\
& k1_numbers (k56_valued_1 k1_numbers k1_numbers X4) (k3_integra5 \\
& X2 X3))) \wedge (r1_xxreal_0 (k18_complex1 (k4_integra5 X2 X3 X4) (\\
& k4_integra5 X2 X3 (k56_valued_1 k1_numbers k1_numbers X4))) \wedge (\\
& r1_xxreal_0 (k18_complex1 (k4_integra5 X3 X2 X4) (k4_integra5 \\
& X2 X3 (k56_valued_1 k1_numbers k1_numbers X4))))))))))
\end{aligned}$$