

l23_integra6

(TMc1QD6JobYtnjKWJGHZBqkLkKzmoSgkNRG)

October 27, 2020

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 $k4_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow ((X0 \in k1_xxreal_1 X1 X2) \Leftrightarrow ((r1_xxreal_0 X1 X0) \wedge \\ & (r1_xxreal_0 X0 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

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

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\
& (v1_xreal_0 X2) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge (m1_subset_1 X3 \\
& (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (((r1_xxreal_0 \\
& X0 X1) \wedge ((r1_integra5 (k3_integra5 X0 X1) X3) \wedge ((v1_comseq_2 (k2_partfun1 \\
& k1_numbers k1_numbers X3 (k3_integra5 X0 X1))) \wedge ((r1_tarski (k3_integra5 \\
& X0 X1) (k9_xtuple_0 X3)) \wedge (X2 \in k3_integra5 X0 X1)))))) \Rightarrow ((r1_integra5 \\
& (k3_integra5 X0 X2) X3) \wedge ((r1_integra5 (k3_integra5 X2 X1) X3) \wedge \\
& (k4_integra5 X0 X1 X3 = k7_real_1 (k4_integra5 X0 X2 X3) (k4_integra5 \\
& X2 X1 X3))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (k1_rcomp_1 X0 X1 = k1_xxreal_1 X0 X1) \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\
& (v1_xreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X2) \wedge (r1_xxreal_0 X2 X1)) \Rightarrow (\\
& (X2 \in k3_integra5 X0 X1) \wedge ((r1_tarski (k3_integra5 X0 X2) (k3_integra5 \\
& X0 X1)) \wedge (r1_tarski (k3_integra5 X2 X1) (k3_integra5 X0 X1))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (k3_integra5 X0 X1 = k1_rcomp_1 X0 X1))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow ((r1_xxreal_0 X0 X1) \vee (r1_xxreal_0 X1 X0)) \tag{7}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\
& (v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\forall X4.((v1_funct_1 \\
& X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\
& (((r1_xxreal_0 X0 X1) \wedge ((r1_xxreal_0 X2 X3) \wedge ((r1_integra5 (k3_integra5 \\
& X0 X1) X4) \wedge ((v1_comseq_2 (k2_partfun1 k1_numbers k1_numbers X4 \\
& (k3_integra5 X0 X1))) \wedge ((r1_tarski (k3_integra5 X0 X1) (k9_xtuple_0 \\
& X4)) \wedge ((X2 \in k3_integra5 X0 X1) \wedge (X3 \in k3_integra5 X0 X1)))))) \Rightarrow (\\
& k4_integra5 X0 X3 X4 = k7_real_1 (k4_integra5 X0 X2 X4) (k4_integra5 \\
& X2 X3 X4))))))
\end{aligned}$$