

t8_integra6

(TMPC2zhbfhMNpaMRs8LsLVrJWVjXfKkUpNM)

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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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_integra5 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_comseq_2 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_complex1 : \iota \Rightarrow \iota$ be given. Let $k4_integra5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k56_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_measure5 : \iota \Rightarrow o$ be given. Let $k2_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_measure5 X0) \wedge (m1_subset_1 \\ & \quad X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\ & (((r1_tarski X0 (k9_xtuple_0 X1)) \wedge ((r1_integra5 X0 X1) \wedge (v1_comseq_2 \\ & \quad (k2_partfun1 k1_numbers k1_numbers X1 X0)))) \Rightarrow ((r1_integra5 X0 \\ & \quad (k56_valued_1 k1_numbers k1_numbers X1)) \wedge (r1_xxreal_0 (k18_complex1 \\ & \quad (k2_integra5 X0 X1)) (k2_integra5 X0 (k56_valued_1 k1_numbers \\ & \quad \quad k1_numbers X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$v3_membered k1_numbers \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_membered X1) \wedge ((v1_funct_1 \\ & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow ((v1_funct_1 \\ & \quad (k56_valued_1 X0 X1 X2)) \wedge (m1_subset_1 (k56_valued_1 X0 X1 X2) (\\ & \quad \quad k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow((\neg v1_xboole_0 (k3_integra5 X0 X1))\wedge((v2_measure5 (k3_integra5 X0 X1))\wedge(m1_subset_1 (k3_integra5 X0 X1) (k1_zfmisc_1 k1_numbers)))))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers))))\Rightarrow(((r1_xxreal_0 X0 X1)\Rightarrow(k4_integra5 X0 X1 X2 = k2_integra5 (k3_integra5 X0 X1) X2))\wedge((\neg r1_xxreal_0 X0 X1)\Rightarrow(k4_integra5 X0 X1 X2 = k1_real_1 (k2_integra5 (k3_integra5 X1 X0) X2)))))) \quad (5)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v1_membered X0) \quad (6)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers))))\Rightarrow(((r1_xxreal_0 X0 X1)\wedge((r1_tarski (k3_integra5 X0 X1) (k9_xtuple_0 X2))\wedge((r1_integra5 (k3_integra5 X0 X1) X2)\wedge(v1_comseq_2 (k2_partfun1 k1_numbers k1_numbers X2 (k3_integra5 X0 X1))))))\Rightarrow(r1_xxreal_0 (k18_complex1 (k4_integra5 X0 X1 X2) (k4_integra5 X0 X1 (k56_valued_1 k1_numbers k1_numbers X2)))))) \quad (7)$$