

t18_integr16

(TMcMned2am8fjiXovvn9EtZUaiX3ofGGLLEu)

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Let $v1_xcmplx_0 : \iota \Rightarrow o$ 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 $k2_numbers : \iota$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_comseq_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k47_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k26_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_complex1 : \iota \Rightarrow \iota$ be given. Let $k6_comseq_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_complex1 : \iota \Rightarrow \iota$ be given. Let $k3_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ & \quad m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 k2_numbers)))) \Rightarrow (\\ & \quad \forall X2. (v1_xcmplx_0 X2) \Rightarrow ((r2_relset_1 X0 k1_numbers (k5_comseq_3 \\ & \quad X0 (k25_valued_1 X0 k2_numbers X1 X2)) (k47_valued_1 X0 k1_numbers \\ & \quad k1_numbers (k26_valued_1 X0 k1_numbers (k5_comseq_3 X0 X1) (k3_complex1 \\ & \quad X2)) (k26_valued_1 X0 k1_numbers (k6_comseq_3 X0 X1) (k4_complex1 \\ & \quad X2)))) \wedge (r2_relset_1 X0 k1_numbers (k6_comseq_3 X0 (k25_valued_1 \\ & \quad X0 k2_numbers X1 X2)) (k3_valued_1 X0 k1_numbers k1_numbers (k26_valued_1 \\ & \quad X0 k1_numbers (k5_comseq_3 X0 X1) (k4_complex1 X2)) (k26_valued_1 \\ & \quad X0 k1_numbers (k6_comseq_3 X0 X1) (k3_complex1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$v3_membered k1_numbers \tag{2}$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & \quad (k2_zfmisc_1 X0 k2_numbers)))) \Rightarrow ((v1_funct_1 (k6_comseq_3 X0 \\ & \quad X1)) \wedge (m1_subset_1 (k6_comseq_3 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad X0 k1_numbers)))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_funct_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 k2_numbers))))\Rightarrow((v1_funct_1 (k5_comseq_3 X0 \\ X1))\wedge(m1_subset_1 (k5_comseq_3 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 \\ X0 k1_numbers)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(m1_subset_1 (k4_complex1 X0) k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(m1_subset_1 (k3_complex1 X0) k1_numbers) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.((v3_membered X1)\wedge \\ (((v1_funct_1 X2)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ X0 X1))))\wedge(v1_xreal_0 X3)))\Rightarrow((v1_funct_1 (k26_valued_1 X0 X1 \\ X2 X3))\wedge(m1_subset_1 (k26_valued_1 X0 X1 X2 X3) (k1_zfmisc_1 (k2_zfmisc_1 \\ X0 k1_numbers)))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v3_membered \\ X1)\wedge((v3_membered X2)\wedge(((v1_funct_1 X3)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1))))\wedge((v1_funct_1 X4)\wedge(m1_subset_1 X4 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X2)))))))\Rightarrow(k3_valued_1 X0 X1 X2 X3 X4 = k3_valued_1 \\ X0 X1 X2 X4 X3) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0)\Rightarrow(\forall X1.((v1_funct_1 X1)\wedge(m1_subset_1 \\ X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k2_numbers))))\Rightarrow((r2_relset_1 \\ k1_numbers k1_numbers (k5_comseq_3 k1_numbers (k25_valued_1 \\ k1_numbers k2_numbers X1 X0)) (k47_valued_1 k1_numbers k1_numbers \\ k1_numbers (k26_valued_1 k1_numbers k1_numbers (k5_comseq_3 \\ k1_numbers X1) (k3_complex1 X0)) (k26_valued_1 k1_numbers k1_numbers \\ (k6_comseq_3 k1_numbers X1) (k4_complex1 X0))))\wedge(r2_relset_1 \\ k1_numbers k1_numbers (k6_comseq_3 k1_numbers (k25_valued_1 \\ k1_numbers k2_numbers X1 X0)) (k3_valued_1 k1_numbers k1_numbers \\ k1_numbers (k26_valued_1 k1_numbers k1_numbers (k6_comseq_3 \\ k1_numbers X1) (k3_complex1 X0)) (k26_valued_1 k1_numbers k1_numbers \\ (k5_comseq_3 k1_numbers X1) (k4_complex1 X0)))))) \end{aligned}$$