

t21_integra8
(TMNn2131PAKfxriLZbScMXdDpUqSh5KE5Uv)

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Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v2_fdiff.1 : \iota \Rightarrow o$ 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 $k32_valued.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k26_valued.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal.0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $m2_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $k30_valued.1 : \iota \Rightarrow \iota$ be given. Let $v1_xreal.0 : \iota \Rightarrow o$ be given. Let $k24_valued.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real.1 : \iota \Rightarrow \iota$ be given. Let $k4_xcmplx.0 : \iota \Rightarrow \iota$ be given. Let $v1_relat.1 : \iota \Rightarrow o$ be given. Let $v1_valued.0 : \iota \Rightarrow o$ be given. Let $v3_valued.0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset.1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct.1 \\ & X1) \wedge ((v2_fdiff.1 X1) \wedge (m1_subset.1 X1 (k1_zfmisc.1 (k2_zfmisc.1 \\ & k1_numbers k1_numbers)))))) \Rightarrow ((v1_funct.1 (k26_valued.1 k1_numbers \\ & k1_numbers X1 X0)) \wedge ((v2_fdiff.1 (k26_valued.1 k1_numbers k1_numbers \\ & X1 X0)) \wedge (m1_subset.1 (k26_valued.1 k1_numbers k1_numbers X1 X0) \\ & (k1_zfmisc.1 (k2_zfmisc.1 k1_numbers k1_numbers)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal.0 np_1) \wedge (m2_subset.1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset.1 np_1 k5_numbers) \wedge (m1_subset.1 np_1 k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v3_membered X1) \wedge ((v1_funct.1 \\ & X2) \wedge (m1_subset.1 X2 (k1_zfmisc.1 (k2_zfmisc.1 X0 X1)))))) \Rightarrow (k32_valued.1 \\ & X0 X1 X2 = k30_valued.1 X2) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v3_membered X1) \wedge \\ & (((v1_funct.1 X2) \wedge (m1_subset.1 X2 (k1_zfmisc.1 (k2_zfmisc.1 \\ & X0 X1)))) \wedge (v1_xreal.0 X3))) \Rightarrow (k26_valued.1 X0 X1 X2 X3 = k24_valued.1 \\ & X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k1_real_1 X0 = k4_xcmplx_0 X0) \quad (5)$$

Assume the following.

$$v3_membered k1_numbers \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v3_membered X1) \wedge ((v1_funct_1 \\ X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((v1_funct_1 \\ (k32_valued_1 X0 X1 X2)) \wedge (m1_subset_1 (k32_valued_1 X0 X1 X2) (\\ k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k1_real_1 X0) k1_numbers) \quad (8)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_valued_0 X0))) \Rightarrow (k30_valued_1 X0 = k24_valued_1 X0 (k4_xcmplx_0 np_1)) \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v1_valued_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v3_membered X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v3_valued_0 X2)) \quad (12)$$

Assume the following.

$$\forall X0.(v3_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_xreal_0 X1)) \quad (13)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_funct_1 X0) \wedge ((v2_fdiff_1 X0) \wedge (m1_subset_1 X0 \\ (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))))) \Rightarrow ((v1_funct_1 \\ (k32_valued_1 k1_numbers k1_numbers X0)) \wedge ((v2_fdiff_1 (k32_valued_1 \\ k1_numbers k1_numbers X0)) \wedge (m1_subset_1 (k32_valued_1 k1_numbers \\ k1_numbers X0) (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))))) \end{aligned}$$