

l80_integra8 (TMdY- CXT7Z4Xo5BJnZKd19wEwiEg6HVr6ugR)

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Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_fdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_sin_cos6 : \iota$ be given. Let $k2_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r2_fdiff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_square_1 : \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_square_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow ((r2_fdiff_1 k1_sin_cos6 (k2_rcomp_1 \\ (k1_real_1 np_1) np_1)) \wedge (\neg(\neg r1_xxreal_0 X0 (k1_real_1 np_1)) \wedge \\ ((\neg r1_xxreal_0 np_1 X0) \wedge (k1_fdiff_1 k1_sin_cos6 X0 \neq k10_real_1 \\ np_1 (k7_square_1 (k9_real_1 np_1 (k3_square_1 X0))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (2)$$

Assume the following.

$$\exists X0.(m1_subset_1 X0 k1_numbers) \wedge ((v1_xxreal_0 X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xreal_0 X0) \wedge (v1_int_1 X0)))) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 \\ (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow ((v1_funct_1 (k2_fdiff_1 \\ X0 X1)) \wedge (m1_subset_1 (k2_fdiff_1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 \\ k1_numbers k1_numbers)))) \end{aligned} \quad (4)$$

Assume the following.

$$(v1_funct_1\ k1_sin_cos6) \wedge (m1_subset_1\ k1_sin_cos6\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers))) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_funct_1\ X0) \wedge (m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers)))) \Rightarrow (\forall X1. (r2_fdiff_1\ X0\ X1) \Rightarrow (\forall X2. \\ & ((v1_funct_1\ X2) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers)))) \Rightarrow ((X2 = k2_fdiff_1\ X0\ X1) \Leftrightarrow ((k1_relset_1\ k1_numbers\ X2 = X1) \wedge (\forall X3. (m1_subset_1\ X3\ k1_numbers) \Rightarrow ((X3 \in X1) \Rightarrow (k1_seq_1\ X2\ X3 = k1_fdiff_1\ X0\ X3))))) \quad (6) \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))) \Rightarrow ((v4_relat_1\ X2\ X0) \wedge (v5_relat_1\ X2\ X1)) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))) \Rightarrow (v1_relat_1\ X2) \quad (8)$$

Theorem 1

$$k9_xtuple_0\ (k2_fdiff_1\ k1_sin_cos6\ (k2_rcomp_1\ (k1_real_1\ np_1)\ np_1)) = k2_rcomp_1\ (k1_real_1\ np_1)\ np_1$$