

t96_euclid_8

(TML8qraiZZps9JK6q5L2kcAGHzWiNpaU8Bu)

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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 $r1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_euclid_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k9_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_euclid_8 : \iota$ be given. Let $k1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_euclid_8 : \iota$ be given. Let $k4_euclid_8 : \iota$ be given. Let $k1_euclid_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (k1_euclid_8 \\ & X0 X1 X2 = k7_euclid np_3 (k7_euclid np_3 (k9_euclid np_3 k2_euclid_8 \\ & X0) (k9_euclid np_3 k3_euclid_8 X1)) (k9_euclid np_3 k4_euclid_8 \\ & X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k1_numbers k1_numbers)))) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 \\ & (k1_fdiff_1 X0 X1) k1_numbers) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k1_numbers k1_numbers)))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge (m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers \\ & k1_numbers)))) \Rightarrow (\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow (k8_euclid_8 \\ & X0 X1 X2 X3 = k1_euclid_8 (k1_fdiff_1 X0 X3) (k1_fdiff_1 X1 X3) (k1_fdiff_1 \\ & X2 X3)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad k1_numbers k1_numbers)))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge (m1_subset_1 \\ & \quad X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers \\ & \quad k1_numbers)))) \Rightarrow (\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow (((\\ & r1_fdiff_1 X0 X3) \wedge ((r1_fdiff_1 X1 X3) \wedge (r1_fdiff_1 X2 X3))) \Rightarrow (k8_euclid_8 \\ & X0 X1 X2 X3 = k7_euclid_np_3 (k7_euclid_np_3 (k9_euclid_np_3 k2_euclid_8 \\ & (k1_fdiff_1 X0 X3)) (k9_euclid_np_3 k3_euclid_8 (k1_fdiff_1 X1 \\ & X3))) (k9_euclid_np_3 k4_euclid_8 (k1_fdiff_1 X2 X3)))))) \end{aligned}$$