

t9_scmp_gcd
(TMH8J2KYPkovTu3FT7TvLarhkg9BQQvWyA3)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_15 : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_scmp_gcd : \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmpds_2 : \iota$ be given. Assume the following.

$$k5_card_1 \ k4_scmp_gcd = np_15 \tag{1}$$

Assume the following.

$$\forall X0.((v1_relat_1 \ X0) \wedge ((v4_relat_1 \ X0 \ k5_numbers) \wedge ((v1_funct_1 \ X0) \wedge ((v1_finset_1 \ X0) \wedge (v1_afinsq_1 \ X0)))))) \Rightarrow (\forall X1.(v7_ordinal1 \ X1) \Rightarrow ((X1 \in k2_afinsq_1 \ X0) \Leftrightarrow (\neg r1_xxreal_0 \ (k5_card_1 \ X0) \ X1))) \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0.((v1_relat_1 \ X0) \wedge ((v5_ordinal1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge (v1_finset_1 \ X0)))) \Rightarrow (k2_afinsq_1 \ X0 = k9_xtuple_0 \ X0) \tag{4}$$

Assume the following.

$$\begin{aligned} & (\neg v1_xboole_0 \ k4_scmp_gcd) \wedge ((v1_relat_1 \ k4_scmp_gcd) \wedge ((v4_relat_1 \\ & \quad k4_scmp_gcd \ k5_numbers) \wedge ((v5_relat_1 \ k4_scmp_gcd \ (u1_compos_1 \\ & \quad k1_scmpds_2)) \wedge ((v1_funct_1 \ k4_scmp_gcd) \wedge ((v1_finset_1 \ k4_scmp_gcd) \wedge \\ & \quad \quad (v1_afinsq_1 \ k4_scmp_gcd)))))) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 \ k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0)))))) \Rightarrow ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge (v1_funct_1 X0))) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (7)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 \ k5_numbers) \Rightarrow ((-r1_xxreal_0 \ np_15 X0) \Leftrightarrow (X0 \in k9_xtuple_0 \ k4_scmp_gcd))$$