t42_euclid_2 (TMU4f7sWv63M4kXz6LKeZptqV5ayGHyMEra)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $k12\_euclid : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k23\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0))) \Rightarrow ((k23\_rvsum\_1\ X1\ X1 = k6\_numbers) \Leftrightarrow (X1 = k4\_struct\_0\ (k15\_euclid\ X0)))) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0))) \Rightarrow ((k23\_rvsum\_1\ X1\ X1 = k6\_numbers) \Leftrightarrow (k12\_euclid\ X1 = k6\_numbers))) \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (k12\_euclid\ (k4\_struct\_0\ (k15\_euclid\ X0)) = k6\_numbers) \tag{3}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0))) \Rightarrow ((k12\_euclid\ X1 = k6\_numbers) \Leftrightarrow (X1 = k4\_struct\_0\ (k15\_euclid\ X0))))$$