

# t48\_euclid\_7 (TMcktwKMNUsS- Cjf2X4qqU6mRv3zkPsHEP1N)

October 27, 2020

Let  $m1\_rlvect\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k10\_funcsdom : \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k1\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_card\_1 : \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v6\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v7\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v8\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $g1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k8\_funcsdom : \iota \Rightarrow \iota$  be given. Let  $k5\_funcsdom : \iota \Rightarrow \iota$  be given. Let  $k7\_funcsdom : \iota \Rightarrow \iota$  be given. Let  $k8\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 (k10\_funcsdom (k2\_finseq\_1 X0)))))) \Rightarrow ((m1\_rlvect\_3 \\ X1 (k10\_funcsdom (k2\_finseq\_1 X0))) \Rightarrow (k1\_card\_1 X1 = X0)) \end{aligned} \quad (2)$$

Assume the following.

$$m1\_subset\_1 k1\_xboole\_0 k4\_ordinal1 \quad (3)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (4)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k2\_finseq\_1 X0 = k1\_finseq\_1 X0) \quad (5)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow ((\neg v1\_xboole\_0 (k1\_card\_1 X0)) \wedge (v1\_card\_1 (k1\_card\_1 X0))) \quad (6)$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \quad (7)$$

Assume the following.

$$\forall X0.((v7\_ordinal1 X0) \wedge (v1\_xboole\_0 X0)) \Rightarrow (v1\_xboole\_0 (k1\_finseq\_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 X0)))))))))) \Rightarrow (\exists X1.m1\_rlvect\_3 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 X0)))))))))) \Rightarrow (\forall X1.(m1\_rlvect\_3 X1 X0) \Rightarrow (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \quad (10)$$

Assume the following.

$$\forall X0.(\neg v2\_struct\_0 (k10\_funcsdom X0)) \wedge ((v13\_algstr\_0 (k10\_funcsdom X0)) \wedge ((v1\_rlvect\_1 (k10\_funcsdom X0)) \wedge ((v2\_rlvect\_1 (k10\_funcsdom X0)) \wedge ((v3\_rlvect\_1 (k10\_funcsdom X0)) \wedge ((v4\_rlvect\_1 (k10\_funcsdom X0)) \wedge ((v5\_rlvect\_1 (k10\_funcsdom X0)) \wedge ((v6\_rlvect\_1 (k10\_funcsdom X0)) \wedge ((v7\_rlvect\_1 (k10\_funcsdom X0)) \wedge ((v8\_rlvect\_1 (k10\_funcsdom X0)) \wedge (l1\_rlvect\_1 (k10\_funcsdom X0)))))))))))) \quad (11)$$

Assume the following.

$$\forall X0.k10\_funcsdom X0 = g1\_rlvect\_1 (k9\_funct\_2 X0 k1\_numbers) (k8\_funcsdom X0) (k5\_funcsdom X0) (k7\_funcsdom X0) \quad (12)$$

Assume the following.

$$\forall X0.k8\_funcsdom X0 = k8\_funcop\_1 k5\_numbers X0 k6\_numbers \quad (13)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (14)$$

**Theorem 1**  $m1\_rlvect\_3 k1\_xboole\_0 (k10\_funcsdom (k2\_finseq\_1 k6\_numbers))$ .