

t5\_matroid0  
(TMGqV1kbRNkeHfhMrXBuxdsaiXjzm5muqpS)

October 27, 2020

Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_finset\_1 X0) \Rightarrow (\forall X1.(v1\_finset\_1 X1) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (r1\_xxreal\_0 (k5\_card\_1 X0) (k5\_card\_1 X1)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k4\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

**Theorem 1**

$$\forall X0.(v1\_finset\_1 X0) \Rightarrow (\forall X1.(v1\_finset\_1 X1) \Rightarrow (\neg (\neg r1\_xxreal\_0 (k5\_card\_1 X1) (k5\_card\_1 X0)) \wedge (\forall X2.\neg X2 \in k6\_subset\_1 X1 X0))))$$