

# l6\_ramsey\_1

(TMP1sENJmoGA2PRxhtrQcdciVZpF4mmWqqL)

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Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_group\_10 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 X0 \quad (2)$$

Assume the following.

$$\forall X0. (v1\_finset\_1 X0) \Rightarrow (k5\_card\_1 X0 = k1\_card\_1 X0) \quad (3)$$

Assume the following.

$$\forall X0. (v1\_finset\_1 X0) \Rightarrow (\forall X1. (v1\_finset\_1 X1) \Rightarrow ((r1\_tarski X0 X1) \wedge (k5\_card\_1 X0 = k5\_card\_1 X1)) \Rightarrow (X0 = X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k3\_group\_10 X0 X1 = ReplSep (toset (\lambda X2 : \iota. m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))) (\lambda X2 : \iota. k1\_card\_1 X2 = X1) (\lambda X2 : \iota. X2) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (7)$$

Assume the following.

$$\forall X0. (v1\_finset\_1 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (v1\_finset\_1 X1)) \quad (8)$$

**Theorem 1**

$$\forall X0.(v1\_finset\_1 X0) \Rightarrow (\forall X1.(v1\_finset\_1 X1) \Rightarrow ((k5\_card\_1 X1 = X0) \Rightarrow (k3\_group\_10 X1 X0 = k1\_tarski X1)))$$