

## l65\_stirl2\_1

(TMXeuYWg41zwSkur2VSMsKsrCf79TpNmUHx)

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Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \neg(v1\_xboole\_0 X0) \wedge ((X0 \neq X1) \wedge (v1\_xboole\_0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_xboole\_0 X0 X1) \Leftrightarrow (k4\_xboole\_0 X0 X1 = X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1\_xboole\_0 X0 X1) \wedge (\forall X2. \neg X2 \in k3\_xboole\_0 X0 X1)) \wedge (\neg(\exists X2. X2 \in k3\_xboole\_0 X0 X1) \wedge (r1\_xboole\_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. (v1\_finset\_1 X0) \Rightarrow (\forall X1. (v1\_finset\_1 X1) \Rightarrow ((r2\_xboole\_0 X0 X1) \Rightarrow ((\neg r1\_xreal\_0 (k5\_card\_1 X1) (k5\_card\_1 X0)) \wedge (k5\_card\_1 X0 \in k5\_card\_1 X1)))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (k4\_xboole\_0 X0 X1 = k1\_xboole\_0) \Leftrightarrow (r1\_tarski X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarSKI (k1\_tarSKI X0 X1)\Leftrightarrow(X0 \in X1)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1\_tarSKI X0 X1)\wedge(r1\_tarSKI X1 X2))\Rightarrow(r1\_tarSKI X0 X2) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_xboole\_0 X0 X1)\Rightarrow(r1\_xboole\_0 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (10)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0)\Rightarrow(\forall X1.\neg(r1\_tarSKI X0 X1)\wedge(r1\_xboole\_0 X0 X1)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1 (k6\_subset\_1 X0 X1) (k1\_zfmisc\_1 X0) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(r2\_xboole\_0 X0 X1)\Leftrightarrow((r1\_tarSKI X0 X1)\wedge(X0\neq X1)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k3\_xboole\_0 X0 X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 \in X0)\wedge(X3 \in X1))) \quad (14)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota.v1\_xboole\_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.(v1\_finset\_1 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v1\_finset\_1 X1)) \quad (16)$$

**Theorem 1**

$$\forall X0.(v1\_finset\_1 X0)\Rightarrow(\forall X1.\neg(X1 \in X0)\wedge(r1\_xreal\_0 (k5\_card\_1 X0) (k5\_card\_1 (k6\_subset\_1 X0 (k1\_tarSKI X1))))))$$