

# t11\_stirl2\_1 (TMdewQMbz- ZkP2wRTe7k3SZBbXqnCbm2XKf9)

October 27, 2020

Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k5\_nat\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

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

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (\neg(X0 \neq k6\_numbers) \wedge (\forall X1. (v7\_ordinal1 X1) \Rightarrow (X0 \neq k1\_nat\_1 X1 np\_1))) \quad (2)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (\neg r1\_xxreal\_0 (k1\_nat\_1 X0 np\_1) k6\_numbers) \quad (3)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (\forall X1. (v7\_ordinal1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (\neg r1\_xxreal\_0 X1 X0))) \quad (4)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (\neg(k6\_numbers \neq X0) \wedge (r1\_xxreal\_0 X0 k6\_numbers)) \quad (5)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow (r1\_xxreal\_0 k6\_numbers X0) \quad (6)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 X0) \Rightarrow ((\neg r1\_xxreal\_0 X0 k6\_numbers) \Rightarrow (\forall X1. (v7\_ordinal1 X1) \Rightarrow (\exists X2. (v7\_ordinal1 X2) \wedge (\exists X3. (v7\_ordinal1 X3) \wedge ((X1 = k2\_xcmplx\_0 (k3\_xcmplx\_0 X0 X2) X3) \wedge (\neg r1\_xxreal\_0 X0 X3))))))) \quad (7)$$

Assume the following.

$$\exists X0.v1\_xboole\_0 X0 \quad (8)$$

Assume the following.

$$m2\_subset\_1 k6\_numbers k1\_numbers k5\_numbers \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow \\ & (((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k5\_numbers))) \Rightarrow \\ & ((X1 = k5\_nat\_1 X0) \Leftrightarrow ((X1 \in X0) \wedge (\forall X2.(v7\_ordinal1 X2) \Rightarrow (( \\ & X2 \in X0) \Rightarrow (r1\_xreal\_0 X1 X2)))))) \wedge ((\neg(\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 \\ & X0 (k1\_zfmisc\_1 k5\_numbers))) \Rightarrow ((X1 = k5\_nat\_1 X0) \Leftrightarrow (X1 = k6\_numbers)))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (v7\_ordinal1 X0) \quad (11)$$

**Theorem 1**  $\forall X0.(v7\_ordinal1 X0) \Rightarrow (k5\_nat\_1 X0 = k6\_numbers)$ .