

# l8\_qmax\_1 (TMNg- GNyMKsn8qT7kjWL6rBkRqUrPpqrhHhC)

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Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $c2\_qmax\_1 : \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_finsub\_1 : \iota \Rightarrow o$  be given. Let  $v1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k12\_prob\_1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_subset\_1 : \iota \Rightarrow \iota$  be given. Let  $v4\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X1) \wedge ((v2\_finsub\_1 X1) \wedge ((v1\_prob\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))))) \Rightarrow (X0 \in X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (3)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow ((X0 \in k12\_prob\_1) \Rightarrow (((k6\_numbers \in X0) \Rightarrow (k1\_funct\_1 c2\_qmax\_1 X0 = np\_1)) \wedge ((\neg k6\_numbers \in X0) \Rightarrow (k1\_funct\_1 c2\_qmax\_1 X0 = k6\_numbers)))) \quad (5)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (6)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1\_xboole\_0 \ X0)\wedge((\neg v1\_xboole\_0 \ X1)\wedge \\ (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0))))\Rightarrow(\forall X2.(m2\_subset\_1 \\ X2 \ X0 \ X1)\Rightarrow(m1\_subset\_1 \ X2 \ X0)) \end{aligned} \quad (8)$$

Assume the following.

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

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (10)$$

Assume the following.

$$\forall X0.m1\_subset\_1 \ (k2\_subset\_1 \ X0) \ (k1\_zfmisc\_1 \ X0) \quad (11)$$

Assume the following.

$$\begin{aligned} (\neg v1\_xboole\_0 \ k12\_prob\_1)\wedge((v1\_prob\_1 \ k12\_prob\_1 \ k1\_numbers)\wedge \\ ((v4\_prob\_1 \ k12\_prob\_1 \ k1\_numbers)\wedge(m1\_subset\_1 \ k12\_prob\_1 \\ (k1\_zfmisc\_1 \ (k1\_zfmisc\_1 \ k1\_numbers)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.k2\_subset\_1 \ X0 = X0 \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ (k1\_zfmisc\_1 \\ X0)))\Rightarrow(((\neg v1\_xboole\_0 \ X1)\wedge((v1\_prob\_1 \ X1 \ X0)\wedge(v4\_prob\_1 \ X1 \ X0)))\Rightarrow \\ ((\neg v1\_xboole\_0 \ X1)\wedge((v2\_finsub\_1 \ X1)\wedge((v1\_prob\_1 \ X1 \ X0)\wedge(v4\_prob\_1 \\ X1 \ X0)))))) \end{aligned} \quad (14)$$

**Theorem 1**  $k1\_funct\_1 \ c2\_qmax\_1 \ k1\_numbers = np\_1$ .