

# l15\_zf\_fund1 (TMLPdZfbZHgNSjBEDye- dURnEZBNPRq5BNv3)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k3\_zf\_fund1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zf\_lang : \iota \Rightarrow \iota$  be given. Let  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zf\_lang : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_5 : \iota$  be given. Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k5\_card\_1 (k2\_finseq\_1 X0) = X0) \quad (1)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k5\_card\_1 (k2\_finseq\_1 X0) = k5\_card\_1 X0) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (m2\_subset\_1 (k2\_zf\_lang X0) k5\_numbers k1\_zf\_lang) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2\_subset\_1 X0 k5\_numbers k1\_zf\_lang) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 k5\_numbers) \Rightarrow ((X1 = k3\_zf\_fund1 X0) \Leftrightarrow (k2\_zf\_lang X1 = X0))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} k1\_zf\_lang = & \text{ReplSep (toset } (\lambda X0 : \iota.m1\_subset\_1 X0 k5\_numbers)) \\ & (\lambda X0 : \iota.r1\_xxreal\_0 np\_5 X0) (\lambda X0 : \iota.X0) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (7)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (X0 = k3\_zf\_fund1 (k2\_zf\_lang (k5\_card\_1 X0)))$$