

## t58\_mesfunc5

(TMLN9yK7DFUFcKfcYkfBLmG8M5isFUazuQK)

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Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k7\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_supinf\_1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $k17\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xxreal\_0 : \iota$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $k1\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v4\_card\_3 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k7\_numbers) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k7\_numbers)))))) \Rightarrow \\ & (\forall X1. (m1\_subset\_1 X1 k7\_numbers) \Rightarrow ((\forall X2. (v7\_ordinal1 \\ & X2) \Rightarrow (r1\_xxreal\_0 (k8\_nat\_1 k7\_numbers X0 X2) X1)) \Rightarrow (r1\_xxreal\_0 \\ & (k8\_supinf\_2 (k17\_supinf\_2 X0)) X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (v1\_xxreal\_0 X0) \Rightarrow ((r1\_xxreal\_0 k1\_xxreal\_0 X0) \Rightarrow (X0 = k1\_xxreal\_0)) \tag{2}$$

Assume the following.

$$\forall X0. (v2\_membered X0) \Rightarrow (k8\_supinf\_2 X0 = k1\_xxreal\_2 X0) \tag{3}$$

Assume the following.

$$k1\_supinf\_1 = k1\_xxreal\_0 \tag{4}$$

Assume the following.

$$\forall X0. (v2\_membered X0) \Rightarrow (v1\_xxreal\_0 (k1\_xxreal\_2 X0)) \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k7\_numbers) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k7\_numbers)))))) \Rightarrow \\ & ((\neg v1\_xboole\_0 (k17\_supinf\_2 X0)) \wedge ((v4\_card\_3 (k17\_supinf\_2 \\ & X0)) \wedge (m1\_subset\_1 (k17\_supinf\_2 X0) (k1\_zfmisc\_1 k7\_numbers)))))) \end{aligned} \quad (6)$$

Assume the following.

$$k1\_xxreal\_0 = k1\_numbers \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k7\_numbers)) \Rightarrow (v2\_membered X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (v1\_xxreal\_0 X0) \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k7\_numbers) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k7\_numbers)))))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 k7\_numbers) \Rightarrow (\neg (X1 \neq k1\_supinf\_1) \wedge \\ & ((\forall X2.(v7\_ordinal1 X2) \Rightarrow (r1\_xxreal\_0 (k8\_nat\_1 k7\_numbers \\ & X0 X2) X1)) \wedge (r1\_xxreal\_0 k1\_supinf\_1 (k8\_supinf\_2 (k17\_supinf\_2 \\ & X0)))))) \end{aligned}$$