

# t7\_mesfunc6 (TMNwPoLR- phJ6NHs7V9JvZsLiDJwc225LMYQ)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k10\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_rerset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v3\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v2\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k12\_supinf\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v3\_valued\_0 X0))) \Rightarrow (k1\_seq\_1 X0 X1 = k1\_funct\_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (k1\_rerset\_1 X0 X1 = k9\_xtuple\_0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v2\_valued\_0 X0))) \Rightarrow (k12\_supinf\_2 X0 X1 = k1\_funct\_1 X0 X1) \quad (3)$$

Assume the following.

$$v3\_membered \ k1\_numbers \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v2\_valued\_0 X0))) \Rightarrow \\ & (\forall X1. (v1\_xxreal\_0 X1) \Rightarrow (\forall X2. (X2 = k10\_relat\_1 X0 \\ & X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in k9\_xtuple\_0 X0) \wedge (k12\_supinf\_2 \\ & X0 X3 = X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v3\_membered X0) \Rightarrow (v2\_membered X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow ((v4\_relat\_1 X2 X0) \wedge (v5\_relat\_1 X2 X1)) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v1\_relat\_1 X2) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(v3\_membered X1) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v3\_valued\_0 X2)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v2\_membered X1) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v2\_valued\_0 X2)) \quad (12)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ( \\ & m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \Rightarrow ( \\ & \forall X2.(m1\_subset\_1 X2 k1\_numbers) \Rightarrow (\forall X3.(X3 \in k10\_relat\_1 \\ & X1 X2) \Leftrightarrow ((X3 \in k1\_relset\_1 X0 X1) \wedge (\exists X4.(m1\_subset\_1 X4 k1\_numbers) \wedge \\ & ((X4 = k1\_seq\_1 X1 X3) \wedge (X2 = X4)))))) \end{aligned}$$