

## t2\_mesfunc5

(TMS8farEdhgsmFWf5NMnuxQqoUpszUB2RiBQ)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_supinf\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_extreal1 : \iota \Rightarrow \iota$  be given. Let  $k2\_supinf\_2 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow ((r1\_xxreal\_0 (k2\_supinf\_2 (k3\_extreal1 X0)) X0) \wedge (r1\_xxreal\_0 X0 (k3\_extreal1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k7\_numbers) \Rightarrow (k3\_extreal1 (k4\_supinf\_2 X0 X1) = k3\_extreal1 (k4\_supinf\_2 X1 X0))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k7\_numbers) \wedge (m1\_subset\_1 X1 k7\_numbers)) \Rightarrow (m1\_subset\_1 (k4\_supinf\_2 X0 X1) k7\_numbers) \quad (3)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k7\_numbers) \Rightarrow (r1\_xxreal\_0 (k4\_supinf\_2 X1 X0) (k3\_extreal1 (k4\_supinf\_2 X0 X1))))$$