

# t21\_mesfunc2 (TMXd- kgaoLmwQdc1DNFSWB3ZcdvsnLv9UkDp)

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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  $k7\_numbers : \iota$  be given. Let  $k12\_supinf\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_mesfunc2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_mesfunc2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_supinf\_2 : \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xxreal\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_3 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v2\_valued\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (k1\_xxreal\_3 X0 (k2\_xxreal\_3 X0) = k6\_numbers) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (k1\_xxreal\_3 X0 k6\_numbers = X0) \quad (3)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ( \\ & m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k7\_numbers)))) \Rightarrow ( \\ & \forall X2.(m1\_subset\_1 X2 X0) \Rightarrow (((k12\_supinf\_2 (k1\_mesfunc2 \\ & X0 X1) X2 = k12\_supinf\_2 X1 X2) \vee (k12\_supinf\_2 (k1\_mesfunc2 X0 X1) \\ & X2 = k1\_supinf\_2)) \wedge ((k12\_supinf\_2 (k2\_mesfunc2 X0 X1) X2 = k2\_supinf\_2 \\ & (k12\_supinf\_2 X1 X2)) \vee (k12\_supinf\_2 (k2\_mesfunc2 X0 X1) X2 = k1\_supinf\_2)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ( \\ m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k7\_numbers)))) \Rightarrow ( \\ \forall X2.(m1\_subset\_1 X2 X0) \Rightarrow ((\neg r1\_xxreal\_0 (k12\_supinf\_2 \\ (k2\_mesfunc2 X0 X1) X2) k1\_supinf\_2) \Rightarrow (k12\_supinf\_2 (k1\_mesfunc2 \\ X0 X1) X2 = k1\_supinf\_2)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ( \\ m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k7\_numbers)))) \Rightarrow ( \\ \forall X2.(m1\_subset\_1 X2 X0) \Rightarrow (r1\_xxreal\_0 k1\_supinf\_2 (k12\_supinf\_2 \\ (k2\_mesfunc2 X0 X1) X2)))) \end{aligned} \quad (7)$$

Assume the following.

$$k2\_xcmplx\_0 np\_1 (k4\_xcmplx\_0 np\_1) = np\_0 \quad (8)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (k2\_supinf\_2 X0 = k2\_xxreal\_3 X0) \quad (10)$$

Assume the following.

$$k1\_supinf\_2 = k1\_xboole\_0 \quad (11)$$

Assume the following.

$$\exists X0.(v1\_xboole\_0 X0) \wedge ((v1\_xcmplx\_0 X0) \wedge ((v1\_xxreal\_0 X0) \wedge (v1\_xreal\_0 X0))) \quad (12)$$

Assume the following.

$$k2\_xcmplx\_0 np\_1 (k4\_xcmplx\_0 np\_1) = k6\_numbers \quad (13)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (k2\_xxreal\_3 (k2\_xxreal\_3 X0) = X0) \quad (14)$$

Assume the following.

$$v2\_membered k7\_numbers \quad (15)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (m1\_subset\_1 (k2\_supinf\_2 X0) k7\_numbers) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v2\_valued\_0 X0))) \Rightarrow (m1\_subset\_1 (k12\_supinf\_2 X0 X1) k7\_numbers) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (k1\_xxreal\_3 X0 X1 = k1\_xxreal\_3 X1 X0) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v1\_relat\_1 X2) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.(v2\_membered X1) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v2\_valued\_0 X2)) \quad (20)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow (v1\_xxreal\_0 X1)) \quad (21)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ( \\ m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k7\_numbers)))) \Rightarrow ( \\ \forall X2.(m1\_subset\_1 X2 X0) \Rightarrow ((k12\_supinf\_2 (k2\_mesfunc2 X0 \\ X1) X2 = k2\_supinf\_2 (k12\_supinf\_2 X1 X2)) \Rightarrow (k12\_supinf\_2 (k1\_mesfunc2 \\ X0 X1) X2 = k1\_supinf\_2)))) \end{aligned}$$