

## t81\_cfunct\_1

(TMKhS2WnKpEG7cW1Vn71C28nBJwJDS28Bgt)

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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  $k2\_numbers : \iota$  be given. Let  $v3\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_comseq\_2 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k17\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k16\_complex1 : \iota \Rightarrow \iota$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. ((v1\_funct\_1 \\ & X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 k2\_numbers)))) \Rightarrow \\ & ((v1\_comseq\_2 (k2\_partfun1 X1 k2\_numbers X2 X0)) \Leftrightarrow (\exists X3. \\ & (v1\_xreal\_0 X3) \wedge (\forall X4. (m1\_subset\_1 X4 X1) \Rightarrow ((X4 \in k9\_subset\_1 \\ & X1 X0 (k1\_relset\_1 X1 X2)) \Rightarrow (r1\_xxreal\_0 (k17\_complex1 (k7\_partfun1 \\ & k2\_numbers X2 X4)) X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. (\neg v1\_xboole\_0 \\ & X2) \Rightarrow (\forall X3. ((v1\_funct\_1 X3) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X2 X1)))) \Rightarrow ((v3\_funct\_1 (k2\_partfun1 X2 X1 X3 X0)) \Leftrightarrow \\ & (\exists X4. (m1\_subset\_1 X4 X1) \wedge (\forall X5. (m1\_subset\_1 X5 X2) \Rightarrow \\ & ((X5 \in k9\_subset\_1 X2 X0 (k1\_relset\_1 X2 X3)) \Rightarrow (k7\_partfun1 X1 X3 \\ & X5 = X4)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (r1\_xxreal\_0 X0 X0) \tag{3}$$

Assume the following.

$$\forall X0. (v1\_xcmplx\_0 X0) \Rightarrow (k17\_complex1 X0 = k16\_complex1 X0) \tag{4}$$

Assume the following.

$$\neg v1\_xboole\_0 \ k2\_numbers \quad (5)$$

Assume the following.

$$v1\_membered \ k2\_numbers \quad (6)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 \ X0) \Rightarrow (v1\_xreal\_0 \ (k16\_complex1 \ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 \ X0) \Rightarrow (v1\_xxreal\_0 \ X0) \quad (8)$$

Assume the following.

$$\forall X0.(v1\_membered \ X0) \Rightarrow (\forall X1.(m1\_subset\_1 \ X1 \ X0) \Rightarrow (v1\_xcmplx\_0 \ X1)) \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.(\neg v1\_xboole\_0 \ X1) \Rightarrow (\forall X2.((v1\_funct\_1 \\ & X2) \wedge (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X1 \ k2\_numbers)))) \Rightarrow \\ & ((v3\_funct\_1 \ (k2\_partfun1 \ X1 \ k2\_numbers \ X2 \ X0)) \Rightarrow (v1\_comseq\_2 \\ & (k2\_partfun1 \ X1 \ k2\_numbers \ X2 \ X0)))) \end{aligned}$$