

## t2\_fdif9

(TMEoSB5n5szTPjeMY4EhHC7W9BFvb3jeJx3)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k16\_sin\_cos : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $r1\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_fdiff\_9 : \iota$  be given. Let  $k1\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k19\_sin\_cos : \iota$  be given. Let  $k5\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_rfunct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow ((r1\_fdiff\_1 k16\_sin\_cos X0) \wedge (k1\_fdiff\_1 k16\_sin\_cos X0 = k1\_seq\_1 k19\_sin\_cos X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.((v1\_funct\_1 \\ & X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \Rightarrow \\ & ((r1\_fdiff\_1 X1 X0) \Rightarrow ((k1\_seq\_1 X1 X0 = k6\_numbers) \vee ((r1\_fdiff\_1 \\ & (k6\_rfunct\_1 k1\_numbers k1\_numbers X1) X0) \wedge (k1\_fdiff\_1 (k6\_rfunct\_1 \\ & k1\_numbers k1\_numbers X1) X0 = k1\_real\_1 (k10\_real\_1 (k1\_fdiff\_1 \\ & X1 X0) (k5\_square\_1 (k1\_seq\_1 X1 X0))))))) \end{aligned} \quad (2)$$

Assume the following.

$$(v1\_funct\_1 k16\_sin\_cos) \wedge ((v1\_funct\_2 k16\_sin\_cos k1\_numbers k1\_numbers) \wedge (m1\_subset\_1 k16\_sin\_cos (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \quad (3)$$

Assume the following.

$$k2\_fdiff\_9 = k6\_rfunct\_1 k1\_numbers k1\_numbers k16\_sin\_cos \quad (4)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow ((k1\_seq\_1 k16\_sin\_cos \\ & X0 \neq k6\_numbers) \Rightarrow ((r1\_fdiff\_1 k2\_fdiff\_9 X0) \wedge (k1\_fdiff\_1 k2\_fdiff\_9 \\ & X0 = k1\_real\_1 (k10\_real\_1 (k1\_seq\_1 k19\_sin\_cos X0) (k5\_square\_1 \\ & (k1\_seq\_1 k16\_sin\_cos X0)))))) \end{aligned}$$