

## l69\_integra8

(TMVg27PqdLHVthGAdVmNkK4Erq6X4dMujqE)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_measure5 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v1\_fcont\_1 : \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_sin\_cos2 : \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r2\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_sin\_cos2 : \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 X0) \Rightarrow ((r2\_fdiff\_1 k1\_sin\_cos2 k1\_numbers) \wedge (k1\_fdiff\_1 k1\_sin\_cos2 X0 = k1\_seq\_1 k4\_sin\_cos2 X0)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_funct\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \Rightarrow ((r2\_fdiff\_1 X1 X0) \Rightarrow (v1\_fcont\_1 (k2\_partfun1 k1\_numbers k1\_numbers X1 X0))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \Rightarrow (((v1\_fcont\_1 (k2\_partfun1 k1\_numbers k1\_numbers X2 X0)) \wedge (r1\_tarski X1 X0)) \Rightarrow (v1\_fcont\_1 (k2\_partfun1 k1\_numbers k1\_numbers X2 X1))) \quad (4)$$

Assume the following.

$$\exists X0. (m1\_subset\_1 X0 k1\_numbers) \wedge ((v1\_xreal\_0 X0) \wedge (v1\_xcmplx\_0 X0) \wedge ((v1\_xreal\_0 X0) \wedge (v1\_int\_1 X0))) \quad (5)$$

Assume the following.

$$(v1\_funct\_1\ k1\_sin\_cos2) \wedge ((v1\_funct\_2\ k1\_sin\_cos2\ k1\_numbers\ k1\_numbers) \wedge (m1\_subset\_1\ k1\_sin\_cos2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \quad (6)$$

**Theorem 1**

$$\forall X0. ((\neg v1\_xboole\_0\ X0) \wedge ((v2\_measure5\ X0) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers)))) \Rightarrow (v1\_fcont\_1\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ k1\_sin\_cos2\ X0))$$