

## l70\_integra8

(TMWwJmzRHCz2sRaMH3MkqMDDHohi9aGF6HW)

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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  $r1\_integra5 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_sin\_cos2 : \iota$  be given. Let  $v1\_comseq\_2 : \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_fcont\_1 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  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.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_measure5 X0) \wedge (m1\_subset\_1 \\ & \quad X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \Rightarrow \\ & (((r1\_tarski X0 (k1\_relset\_1 k1\_numbers X1)) \wedge (v1\_fcont\_1 (k2\_partfun1 \\ & \quad k1\_numbers k1\_numbers X1 X0))) \Rightarrow (r1\_integra5 X0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_measure5 X0) \wedge (m1\_subset\_1 \\ & \quad X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \Rightarrow \\ & (((r1\_tarski X0 (k1\_relset\_1 k1\_numbers X1)) \wedge (v1\_fcont\_1 (k2\_partfun1 \\ & \quad k1\_numbers k1\_numbers X1 X0))) \Rightarrow (v1\_comseq\_2 (k2\_partfun1 k1\_numbers \\ & \quad k1\_numbers X1 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v2\_measure5 X0) \wedge (m1\_subset\_1 \\ & \quad X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow (v1\_fcont\_1 (k2\_partfun1 k1\_numbers \\ & \quad k1\_numbers k1\_sin\_cos2 X0)) \end{aligned} \quad (4)$$

Assume the following.

$$v1\_xboole\_0 \ k1\_xboole\_0 \tag{5}$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ X0 \ X1))) \Rightarrow (((X1 \neq k1\_xboole\_0) \Rightarrow ((v1\_funct\_2 \ X2 \ X0 \ X1) \Leftrightarrow (X0 = k1\_relset\_1 \ X0 \ X2))) \wedge ((X1 = k1\_xboole\_0) \Rightarrow ((v1\_funct\_2 \ X2 \ X0 \ X1) \Leftrightarrow (X2 = k1\_xboole\_0)))) \tag{7}$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 \ X0) \Rightarrow (\forall X1. (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0)) \Rightarrow (v1\_xboole\_0 \ X1)) \tag{8}$$

**Theorem 1**

$$\forall X0. ((\neg v1\_xboole\_0 \ X0) \wedge ((v2\_measure5 \ X0) \wedge (m1\_subset\_1 \ X0 \ (k1\_zfmisc\_1 \ k1\_numbers)))) \Rightarrow ((r1\_integra5 \ X0 \ k1\_sin\_cos2) \wedge (v1\_comseq\_2 \ (k2\_partfun1 \ k1\_numbers \ k1\_numbers \ k1\_sin\_cos2 \ X0)))$$