

t43\_jgraph\_1 (TM-  
VAD5YCWGrC9FzMLJhwqKZwDxk4GB8uRhh)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_goboard1 : \iota \Rightarrow \iota$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_goboard1 : \iota \Rightarrow \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. (m2\_finseq\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (k4\_finseq\_1 (k2\_goboard1 X0) = k4\_finseq\_1 X0) \quad (4)$$

Assume the following.

$$\forall X0. (m2\_finseq\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (k4\_finseq\_1 (k1\_goboard1 X0) = k4\_finseq\_1 X0) \quad (5)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (6)$$

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_finseq\_1 \ X0 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2))) \Rightarrow \quad (8)$$

$$(m2\_finseq\_1 \ (k2\_goboard1 \ X0) \ k1\_numbers)$$

Assume the following.

$$\forall X0.(m1\_finseq\_1 \ X0 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2))) \Rightarrow \quad (9)$$

$$(m2\_finseq\_1 \ (k1\_goboard1 \ X0) \ k1\_numbers)$$

Assume the following.

$$\forall X0.(m2\_finseq\_1 \ X0 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2))) \Rightarrow$$

$$(\forall X1.(m2\_finseq\_1 \ X1 \ k1\_numbers) \Rightarrow ((X1 = k2\_goboard1 \ X0) \Leftrightarrow$$

$$((k3\_finseq\_1 \ X1 = k3\_finseq\_1 \ X0) \wedge (\forall X2.(m2\_subset\_1 \ X2$$

$$k1\_numbers \ k5\_numbers) \Rightarrow ((X2 \in k4\_finseq\_1 \ X1) \Rightarrow (k1\_seq\_1 \ X1 \ X2 =$$

$$k18\_euclid \ (k7\_partfun1 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2)) \ X0 \ X2)))))) \quad (10)$$

Assume the following.

$$\forall X0.(m2\_finseq\_1 \ X0 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2))) \Rightarrow$$

$$(\forall X1.(m2\_finseq\_1 \ X1 \ k1\_numbers) \Rightarrow ((X1 = k1\_goboard1 \ X0) \Leftrightarrow$$

$$((k3\_finseq\_1 \ X1 = k3\_finseq\_1 \ X0) \wedge (\forall X2.(m2\_subset\_1 \ X2$$

$$k1\_numbers \ k5\_numbers) \Rightarrow ((X2 \in k4\_finseq\_1 \ X1) \Rightarrow (k1\_seq\_1 \ X1 \ X2 =$$

$$k17\_euclid \ (k7\_partfun1 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2)) \ X0 \ X2)))))) \quad (11)$$

Assume the following.

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

$$X0)) \Rightarrow (v1\_xboole\_0 \ X1) \quad (12)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 \ X0 \ k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_1$$

$$X1 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2))) \Rightarrow ((X0 \in k4\_finseq\_1 \ X1) \Rightarrow ($$

$$(k1\_seq\_1 \ (k1\_goboard1 \ X1) \ X0 = k17\_euclid \ (k7\_partfun1 \ (u1\_struct\_0$$

$$(k15\_euclid \ np\_2)) \ X1 \ X0)) \wedge (k1\_seq\_1 \ (k2\_goboard1 \ X1) \ X0 = k18\_euclid$$

$$(k7\_partfun1 \ (u1\_struct\_0 \ (k15\_euclid \ np\_2)) \ X1 \ X0))))$$