

t30\_jgraph\_1  
(TMHxrejNm9fHjGQq6XuxHkxyts1VjJexsV1)

October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  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  $k12\_euclid : \iota \Rightarrow \iota$  be given. Let  $k7\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k6\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v3\_valued\_0 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v4\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k18\_rvsum\_1 : \iota \Rightarrow \iota$  be given. Let  $k12\_rvsum\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 X1) \wedge ((\neg v3\_xxreal\_0 X1) \wedge (\neg v2\_xxreal\_0 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (k5\_square\_1 (k12\_euclid X0) = k7\_real\_1 (k5\_square\_1 (k17\_euclid X0)) (k5\_square\_1 (k18\_euclid X0))) \quad (3)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow ((r1\_xxreal\_0 k6\_numbers X0) \Rightarrow (k6\_square\_1 (k3\_square\_1 X0) = X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_2) \wedge (m2\_subset\_1 \ np\_2 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_2 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_2 \ k1\_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$(m2\_subset\_1 \ np\_0 \ k1\_numbers \ k5\_numbers) \wedge ((m1\_subset\_1 \ np\_0 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_0 \ k1\_numbers)) \quad (6)$$

Assume the following.

$$v1\_xboole\_0 \ np\_0 \quad (7)$$

Assume the following.

$$k4\_xcmplx\_0 \ np\_0 = np\_0 \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 \ X1 \ X0) \Leftrightarrow (m1\_finseq\_1 \ X1 \ X0) \quad (9)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow (k7\_square\_1 \ X0 = k6\_square\_1 \ X0) \quad (10)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (11)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow (k5\_square\_1 \ X0 = k3\_square\_1 \ X0) \quad (12)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (13)$$

Assume the following.

$$\exists X0. (v1\_xboole\_0 \ X0) \wedge ((v1\_xcmplx\_0 \ X0) \wedge ((v1\_xxreal\_0 \ X0) \wedge (v1\_xreal\_0 \ X0))) \quad (14)$$

Assume the following.

$$v6\_membered \ k4\_ordinal1 \quad (15)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 \ X0) \wedge ((v1\_funct\_1 \ X0) \wedge ((v1\_finseq\_1 \ X0) \wedge (v3\_valued\_0 \ X0)))) \Rightarrow (\neg v3\_xxreal\_0 \ (k12\_euclid \ X0)) \quad (16)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v4\_funct\_1\ (u1\_struct\_0\ (k15\_euclid\ X0))) \quad (17)$$

Assume the following.

$$\forall X0.((\neg v3\_xxreal\_0\ X0)\wedge(v1\_xreal\_0\ X0))\Rightarrow((v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0))\wedge(\neg v2\_xxreal\_0\ (k4\_xcmplx\_0\ X0))) \quad (18)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(m1\_subset\_1\ (k7\_square\_1\ X0)\ k1\_numbers) \quad (19)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(m1\_subset\_1\ (k5\_square\_1\ X0)\ k1\_numbers) \quad (20)$$

Assume the following.

$$\forall X0.(m1\_finseq\_1\ X0\ k1\_numbers)\Rightarrow(m1\_subset\_1\ (k18\_rvsum\_1\ X0)\ k1\_numbers) \quad (21)$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_valued\_0\ X0)\wedge(v1\_finseq\_1\ X0))))\Rightarrow(m2\_finseq\_1\ (k12\_rvsum\_1\ X0)\ k1\_numbers) \quad (22)$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finseq\_1\ X0)\wedge(v3\_valued\_0\ X0))))\Rightarrow(k12\_euclid\ X0 = k7\_square\_1\ (k18\_rvsum\_1\ X0)) \quad (23)$$

Assume the following.

$$\forall X0.(v4\_funct\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))) \quad (24)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0)))\Rightarrow(v3\_valued\_0\ X1)) \quad (25)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\neg v3\_xxreal\_0\ X0) \quad (26)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0))) \Rightarrow (v1\_finseq\_1\ X1)) \quad (27)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \quad (28)$$

Assume the following.

$$\forall X0.(v6\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v7\_ordinal1\ X1)) \quad (29)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_2))) \Rightarrow (k12\_euclid\ X0 = k7\_square\_1\ (k7\_real\_1\ (k5\_square\_1\ (k17\_euclid\ X0))\ (k5\_square\_1\ (k18\_euclid\ X0))))$$