

t48\_jgraph\_7  
(TMd66urSL72Wv3znqEq7Zvxqwaj6HLeTghe)

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  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $r1\_jordan17 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_sppol\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xxreal\_0 X2) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X2)) \Rightarrow \\ & (r1\_xxreal\_0 X0 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X2.(v1\_xreal\_0 X2) \Rightarrow (\forall X3.(v1\_xreal\_0 X3) \Rightarrow (\forall X4. \\ & (v1\_xreal\_0 X4) \Rightarrow (\forall X5.(v1\_xreal\_0 X5) \Rightarrow (((k18\_euclid X0 = \\ & X4) \wedge ((k18\_euclid X1 = X4) \wedge (r1\_xxreal\_0 (k17\_euclid X0) X3))) \Rightarrow \\ & ((r1\_xxreal\_0 X3 X2) \vee ((r1\_xxreal\_0 X5 X4) \vee ((r1\_xxreal\_0 (k17\_euclid \\ & X1) X2) \vee ((r1\_xxreal\_0 (k17\_euclid X0) (k17\_euclid X1)) \vee (r1\_jordan6 \\ & (k1\_sppol\_2 X2 X3 X4 X5) X0 X1)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1\_xreal\_0 X0) \wedge \\ & ((v1\_xreal\_0 X1) \wedge ((v1\_xreal\_0 X2) \wedge (v1\_xreal\_0 X3)))) \Rightarrow (m1\_subset\_1 \\ & (k1\_sppol\_2 X0 X1 X2 X3) (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ & np\_2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (m1\_subset\_1 (k17\_euclid X0) k1\_numbers) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\
& \quad np\_2)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid \\
& \quad np\_2)))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid \\
& \quad np\_2)))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid \\
& \quad np\_2)))) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 (k15\_euclid \\
& \quad np\_2)))) \Rightarrow ((r1\_jordan17 X0 X1 X2 X3 X4) \Leftrightarrow (\neg(\neg(r1\_jordan6 X0 X1 X2) \wedge \\
& \quad ((r1\_jordan6 X0 X2 X3) \wedge (r1\_jordan6 X0 X3 X4))) \wedge (\neg(r1\_jordan6 \\
& \quad X0 X2 X3) \wedge ((r1\_jordan6 X0 X3 X4) \wedge (r1\_jordan6 X0 X4 X1))) \wedge (\neg(r1\_jordan6 \\
& \quad X0 X3 X4) \wedge ((r1\_jordan6 X0 X4 X1) \wedge (r1\_jordan6 X0 X1 X2))) \wedge (\neg(r1\_jordan6 \\
& \quad X0 X4 X1) \wedge ((r1\_jordan6 X0 X1 X2) \wedge (r1\_jordan6 X0 X2 X3))))))))) \\
& \hspace{15em} (5)
\end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (8)$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
& (\forall X4.(v1\_xreal\_0 X4) \Rightarrow (\forall X5.(v1\_xreal\_0 X5) \Rightarrow (\forall X6. \\
& \quad (v1\_xreal\_0 X6) \Rightarrow (\forall X7.(v1\_xreal\_0 X7) \Rightarrow (((k18\_euclid X0 = \\
& \quad X6) \wedge ((k18\_euclid X1 = X6) \wedge ((k18\_euclid X2 = X6) \wedge ((k18\_euclid X3 = \\
& \quad X6) \wedge (r1\_xxreal\_0 (k17\_euclid X0) X5)))))) \Rightarrow ((r1\_xxreal\_0 X5 X4) \vee \\
& \quad ((r1\_xxreal\_0 X7 X6) \vee ((r1\_xxreal\_0 (k17\_euclid X0) (k17\_euclid \\
& \quad X1)) \vee ((r1\_xxreal\_0 (k17\_euclid X1) (k17\_euclid X2)) \vee ((r1\_xxreal\_0 \\
& \quad (k17\_euclid X2) (k17\_euclid X3)) \vee ((r1\_xxreal\_0 (k17\_euclid X3) \\
& \quad X4) \vee (r1\_jordan17 (k1\_sppol\_2 X4 X5 X6 X7) X0 X1 X2 X3)))))))))))))
\end{aligned}$$