

t45\_topreal9  
(TMQ2aYrw3wi2tuSwuXjL7P8qok3ke3PkapC)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. 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  $k6\_jgraph\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k12\_euclid : \iota \Rightarrow \iota$  be given. Let  $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2. \\
& (v1\_xreal\_0 X2) \Rightarrow (k6\_jgraph\_6 X0 X1 X2 = ReplSep (toset (\lambda X3 : \\
& \quad \iota.m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid np\_2)))) (\lambda X3 : \quad (1) \\
& \quad \iota.\neg r1\_xxreal\_0 X2 (k12\_euclid (k5\_algstr\_0 (k15\_euclid np\_2) \\
& \quad X3 (k19\_euclid X0 X1)))) (\lambda X3 : \iota.X3))))
\end{aligned}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2. \\
& (v1\_xreal\_0 X2) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid \\
& np\_2)))) \Rightarrow ((X3 \in k6\_jgraph\_6 X0 X1 X2) \Leftrightarrow (\neg r1\_xxreal\_0 X2 (k12\_euclid \\
& (k5\_algstr\_0 (k15\_euclid np\_2) X3 (k19\_euclid X0 X1))))))
\end{aligned}$$