We think of the point set $M$ as the real projective plane $P$ minus one point $\infty$, even if our geometry is not pointwise coaffine. We depict $P$ as a circular disk, whose boundary points are identified in antipodal pairs, that is, $|x| \leq 1$ holds for all points, and $x = -x$ if $|x| = 1$. The point $\infty$ will always be represented by the pair 

\{(0, 1), (0, -1)\}

as in Figure 1.

Since lines are closed subsets $L \subseteq M$, their closure $\overline{L}$ in the one-point compactification $\overline{P}$ will always be homeomorphic to a circle. This circle contains the point $\infty$ if and only if $L$ is not compact.

\section{Proof of the Theorem}

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