Final Project Report

Geometric Computing

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$$\begin{aligned}
\|(k-1, k-1)\|_2^2 &\leq 1 \\
(k-1)^2 + (k-1)^2 &\leq 1 \\
2(k^2 - 2k + 1) &\leq 1 \\
\frac{1}{2}(2(k^2 - 2k + 1)) &\leq \frac{1}{2} \\
k^2 - 2k + 1 &\leq 0
\end{aligned}$$

The only integral solution is 1.

Solution: $k = 1$