You can draw a full circle with one rational quintic Bezier curve. This is the lowest possible Bezier degree to do this. These are the control points for a circle at \((x, y)\) with radius \(r\) (the third components are the weights):

\[
P_0 = \begin{pmatrix} x \\ y \end{pmatrix}, P_1 = \begin{pmatrix} x + 4r \\ y + r \\ 1 \end{pmatrix}, P_2 = \begin{pmatrix} x + 2r \\ y - 3r \end{pmatrix}, P_3 = \begin{pmatrix} x - 2r \\ y - 3r \end{pmatrix}, P_4 = \begin{pmatrix} x - 4r \\ y + r \end{pmatrix}, P_5 = \begin{pmatrix} x \\ y + r \end{pmatrix}.
\]