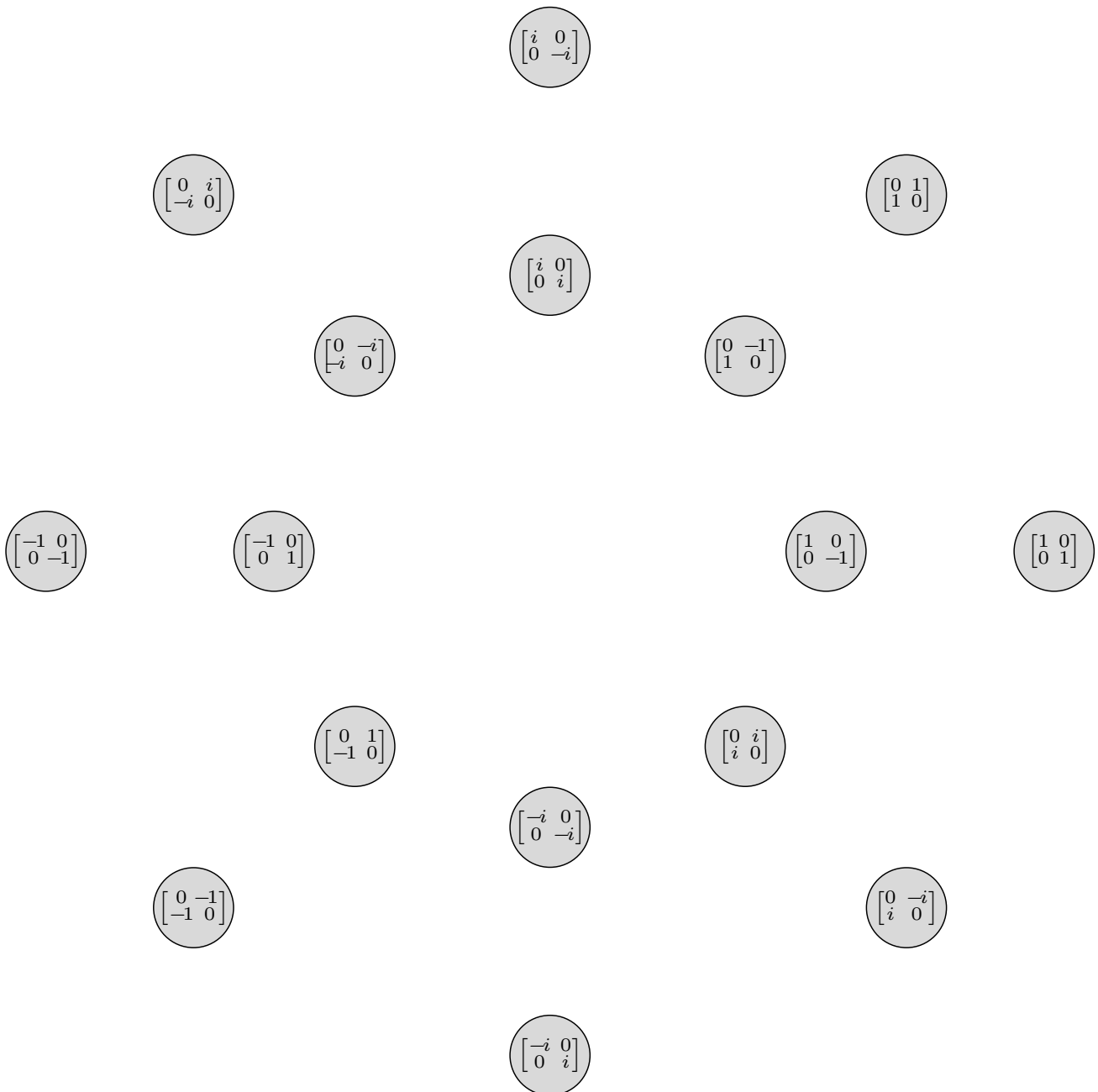# Supplemental material for Math 8510, HW 10

#1(d): A Cayley graph of the diquaternion group

$$\text{DQ}_8 = \langle X, Y, Z \rangle = \left\langle \begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}, \begin{bmatrix} 0 & -i \\ i & 0 \end{bmatrix}, \begin{bmatrix} 1 & 0 \\ 0 & -1 \end{bmatrix} \right\rangle,$$

but for the presentation

$$M = \langle a, b, c \mid a^4,\ c^2,\ a^2 b^{-2},\ aba^{-1}b^{-1},\ aca^{-1}c,\ a^2 bc^{-1}b^{-1}c^{-1} \rangle.$$

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