

d) $R_{B,B'}(\phi) \cdot P_i$ will do the job for every coordinate.

$$R_{B,B'}(30^\circ) \cdot \begin{pmatrix} 0 \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}; R_{B,B'}(30^\circ) \cdot \begin{pmatrix} 7 \\ 0 \end{pmatrix} = \begin{pmatrix} 0,86602 \\ 0,5 \end{pmatrix};$$

$$R_{B,B'}(30^\circ) \cdot \begin{pmatrix} 0 \\ 7 \end{pmatrix} = \begin{pmatrix} -0,5 \\ 0,86602 \end{pmatrix};$$

$$R_{B,B'}(30^\circ) \cdot \begin{pmatrix} 7 \\ 7 \end{pmatrix} = \begin{pmatrix} 0,36602 \\ 7,36602 \end{pmatrix}; R_{B,B'}(30^\circ) \cdot \begin{pmatrix} 0,5 \\ 2 \end{pmatrix} = \begin{pmatrix} -0,56699 \\ 7,98204 \end{pmatrix}$$

e) Both are the same operations in 4) and d) and ~~also~~ have the same result.