**Combining Matrix Transformations**

Find the matrices that represent the following transformations:

(a) A reflection in the -axis, followed by a rotation through centre the origin.

(b) An enlargement with centre the origin and scale factor 2, followed by a reflection in the line .

(c) A reflection in the -axis followed by a reflection in the line .

(d) A reflection in the line followed by enlargement about the origin with scale factor 3.

Point is transformed by the matrix followed by a further transformation by the matrix .  
(i) Work out the matrix for the combined transformation.  
(ii) Work out the co-ordinates of the image point of .

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