a) Use matrices to show that rotating anti-clockwise through $90^{\circ}$ about the origin twice is equivalent to a rotation of $180^{\circ}$ about the origin.
a) Use matrices to show that rotating anti-clockwise through $90^{\circ}$ about the origin twice is equivalent to a rotation of $180^{\circ}$ about the origin.
b) Use matrices to show that a reflection in the $x$-axis followed by a reflection in the $y$-axis is equivalent to a rotation of $180^{\circ}$ about the origin.
c) Use matrices to show that rotating clockwise through $90^{\circ}$ about the origin three times is equivalent to a rotation of $90^{\circ}$ anti-clockwise about the origin.
b) Use matrices to show that a reflection in the $x$-axis followed by a reflection in the $y$-axis is equivalent to a rotation of $180^{\circ}$ about the origin.
c) Use matrices to show that rotating clockwise through $90^{\circ}$ about the origin three times is equivalent to a rotation of $90^{\circ}$ anti-clockwise about the origin.

