Transformation Matrix

1. Find out the new coordinates of the following points after rotating 45 degree counter clockwise with respect to the midpoint of the given points. Also, write down the composite transformation matrix.

i) A(15, -5), B(25, 35)

2. Find out the new coordinates of the following points after scaling 2.5 times in both axis with respect to the midpoint of the given points. Also, write down the composite transformation matrix.

i) A(4, 48) B(43, 0)

3. Find out the coordinate of the point A which gets transformed to (0, 0) after a rotation of 45 degree counter clockwise with respect to the point (-10, 0).

4. Find out the reflection of the following points with respect to the line y=3+x
Also, write down the composite transformation matrix.

i) A(5, 5), B(-5, -5), C(0, 0)