Graphics

Final Exam   **Second Semester 2024/25**

10/8/2025

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حل جميع الأسئلة في ملف واحد pdf ثم تسليم الحل على المودل فقط

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Q1)
Given the object A with the points :   (-1, -1), (1, -1), (1,1), (-1,1)
and the object   B   with the points: (2, 4) , (4,2),   (8, 6), (6, 8).
   A) Use basic transformation to find the composite matrix to convert the object A into B
   B) Write java statement to find the matrix and the image of the object A

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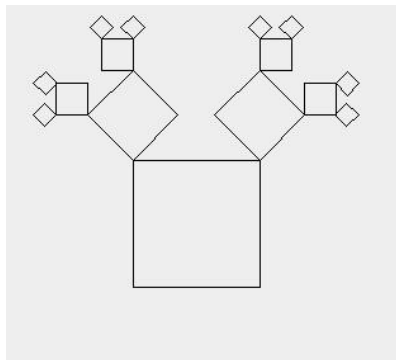**Q2)** Given the a shape with the points :

        (310, 200), (370, 200), (370, 230), (340, 250) , (310, 230) .

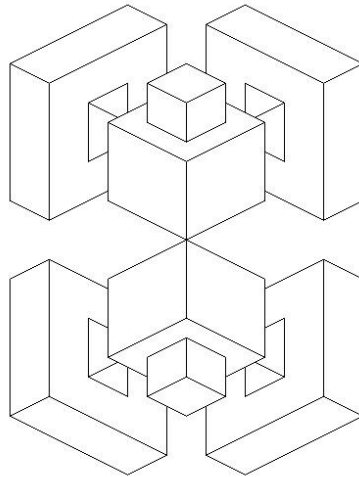The shape is reflected about the line Y = x - 200

Write java program to reflect the shape about the line .The program should perform the following:

    1- Reflection with three matrices using y-axis.
    2- Drawing the reflection line.
    3- Drawing the shape before and after reflection
    4- Printing the composite matrix.
    5- Calculating the images of the points after reflection

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Q3) Using recursion, write a java method to draw the following shape

Q4) Use reflection and loop to write a method to draw the following shape:

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Q5)

Write java codes using for loop and the methods moveTo, forward , right, left to draw the following shapes :

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