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| Assignment 5 | |
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# Problem 1

Develop a matrix equation for minimizing the cost in image registration (without shear) when the correspondences between the points in two images I1 and I2 are known. Summation indicates the sum over all points in a shape.

## Part A

To find the optimal transformation that will align image 2 to image 1, take the partial derivatives of the above cost with respect to a, b, t1, and t2 and set these to 0. Express the four resulting equations in matrix form.

## Part B

Test the above registration of two images by creating a set of points corresponding to two shapes, and then by applying the above matrix equation you will be able to register the I2 image with I1.

The result of the image registration C# application is shown below:

