Homework	Name		No.		Score	

(Q1)(10pts) Normalized coordinates are important to reduce computing error in computing homograpy matrices. Given the following point set P, obtain the normalizing transform T, which makes their average distance to their average point be $\sqrt{2}$ like:

$\begin{pmatrix} x_n \\ y_n \\ 1 \end{pmatrix} = T \begin{pmatrix} x \\ y \\ 1 \end{pmatrix}$ where (x_n, y_n) is the normalized coordinate of (x, y).

$$P = \{ (2, 100), (10, 300), (200, 100), (0, 900), (400, 400), (1000, 5) \}$$

(Answer)