

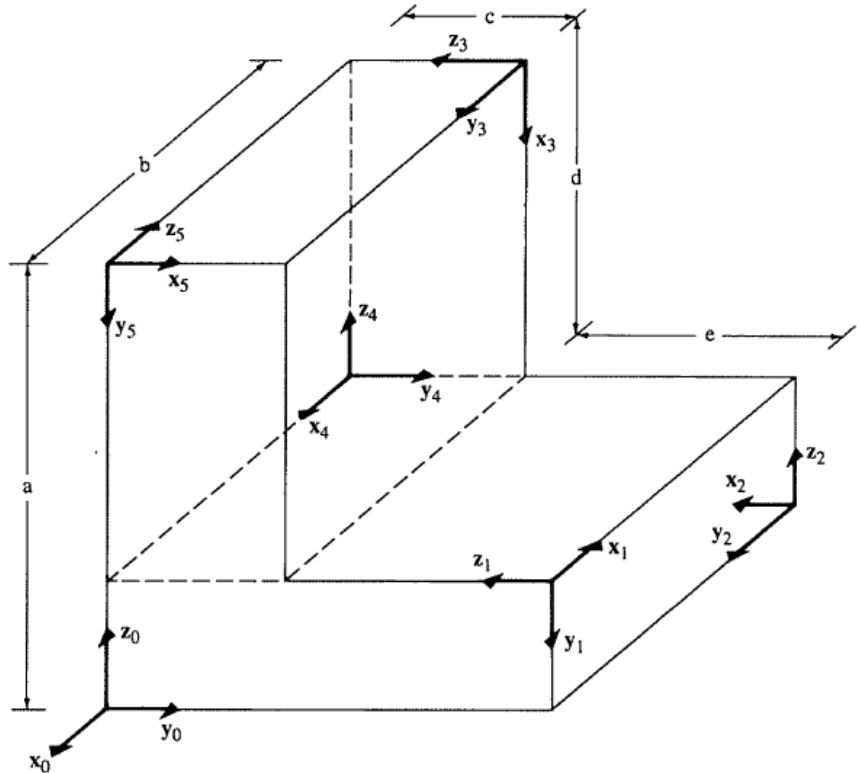
Name: _____

Department: ECE / CSE

For the figure shown below,
 find the 4 x 4 homogeneous
 transformation matrices

T_i^{i-1} for $i = 1, 2, 3, 4, 5$.

And Find T_1^2



T_1^0	$= \begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & e+c \\ 0 & -1 & 0 & a-d \\ 0 & 0 & 0 & 1 \end{bmatrix}$	T_4^3	$= \begin{bmatrix} 0 & 0 & -1 & d \\ 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & c \\ 0 & 0 & 0 & 1 \end{bmatrix}$
T_2^1	$= \begin{bmatrix} 0 & -1 & 0 & b \\ 0 & 0 & -1 & a-d \\ 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$	T_5^4	$= \begin{bmatrix} 0 & 0 & -1 & b \\ 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & a-d \\ 0 & 0 & 0 & 1 \end{bmatrix}$
T_3^2	$= \begin{bmatrix} 0 & 0 & 1 & e \\ 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & a \\ 0 & 0 & 0 & 1 \end{bmatrix}$	T_1^2	$= \begin{bmatrix} 0 & 0 & 1 & 0 \\ -1 & 0 & 0 & b \\ 0 & -1 & 0 & a-d \\ 0 & 0 & 0 & 1 \end{bmatrix}$