

Example 14a-1

Element 1

xn	yn	xf	yf	L
0	0	-8	8	11.31371
1	2	3	4	
0.0442	-0.0442	-0.0442	0.0442	1
-0.0442	0.0442	0.0442	-0.0442	2
-0.0442	0.0442	0.0442	-0.0442	3
0.0442	-0.0442	-0.0442	0.0442	4

AE

$$\begin{bmatrix} \lambda_x & \lambda_y \\ -0.70711 & 0.707107 \end{bmatrix}$$

Element 2

xn	yn	xf	yf	L
0	0	0	8	8
1	2	5	6	
0.0000	0.0000	0.0000	0.0000	1
0.0000	0.1250	0.0000	-0.1250	2
0.0000	0.0000	0.0000	0.0000	5
0.0000	-0.1250	0.0000	0.1250	6

AE

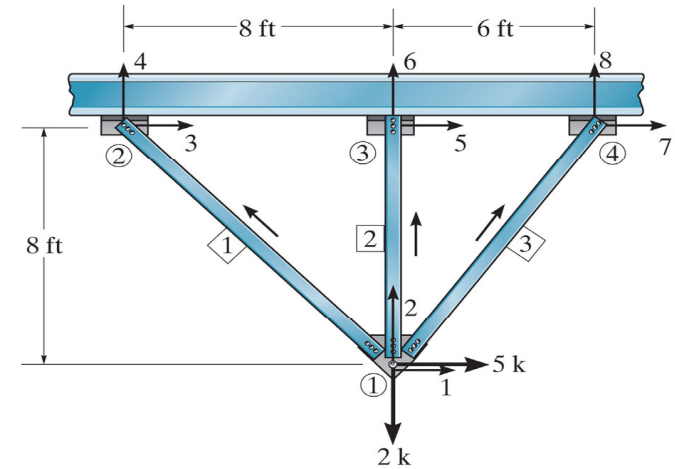
$$\begin{bmatrix} \lambda_x & \lambda_y \\ 0 & 1 \end{bmatrix}$$

Element 3

xn	yn	xf	yf	L
0	0	6	8	10
1	2	7	8	
0.0360	0.0480	-0.0360	-0.0480	1
0.0480	0.0640	-0.0480	-0.0640	2
-0.0360	-0.0480	0.0360	0.0480	7
-0.0480	-0.0640	0.0480	0.0640	8

AE

$$\begin{bmatrix} \lambda_x & \lambda_y \\ 0.6 & 0.8 \end{bmatrix}$$



$$\frac{AE}{L} \begin{bmatrix} \lambda_x^2 & \lambda_x \lambda_y & -\lambda_x^2 & -\lambda_x \lambda_y \\ \lambda_x \lambda_y & \lambda_y^2 & -\lambda_x \lambda_y & -\lambda_y^2 \\ -\lambda_x^2 & -\lambda_x \lambda_y & \lambda_x^2 & \lambda_x \lambda_y \\ -\lambda_x \lambda_y & -\lambda_y^2 & \lambda_x \lambda_y & \lambda_y^2 \end{bmatrix} \begin{Bmatrix} N_x \\ N_y \\ F_x \\ F_y \end{Bmatrix}$$

	1	2	3	4	5	6	7	8	
k1	0.0442	-0.0442	-0.0442	0.0442					1
	-0.0442	0.0442	0.0442	-0.0442					2
	-0.0442	0.0442	0.0442	-0.0442					3
	0.0442	-0.0442	-0.0442	0.0442					4
									5
									6
									7
									8

	1	2	3	4	5	6	7	8	
k2	0.0000	0.0000			0.0000	0.0000			1
	0.0000	0.1250			0.0000	-0.1250			2
									3
									4
									5
									6
									7
									8

	1	2	3	4	5	6	7	8	
k3	0.0360	0.0480					-0.0360	-0.0480	1
	0.0480	0.0640					-0.0480	-0.0640	2
									3
									4
									5
									6
									7
									8

	1	2	3	4	5	6	7	8	
K AE	0.0802	0.0038	-0.0442	0.0442	0.0000	0.0000	-0.0360	-0.0480	1
	0.0038	0.2332	0.0442	-0.0442	0.0000	-0.1250	-0.0480	-0.0640	2
	-0.0442	0.0442	0.0442	-0.0442	0.0000	0.0000	0.0000	0.0000	3
	0.0442	-0.0442	-0.0442	0.0442	0.0000	0.0000	0.0000	0.0000	4
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5
	0.0000	-0.1250	0.0000	0.0000	0.0000	0.1250	0.0000	0.0000	6
	-0.0360	-0.0480	0.0000	0.0000	0.0000	0.0000	0.0360	0.0480	7
	-0.0480	-0.0640	0.0000	0.0000	0.0000	0.0000	0.0480	0.0640	8