#Jenny

Finally I get this ebook, thanks for all these I can get now!

#Rio

Cool! I'am really happy

#Markus Jensen

I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu

wtf this great ebook for free?!

#Che Salsa

My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler

so many fake sites. this is the first one which worked! Many thanks

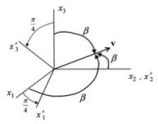

FIGURE E2.5-1
Vector **v** with respect to axes $Ox_1'x_2'x_3'$ and $Ox_1x_2x_3$.

Example 2.5-1
Let the primed axes $Ox_1'x_2'x_3'$ be given with respect to the unprimed axes by a 45° counterclockwise rotation about the x_3 axis as shown. Determine the primed components of the vector given by $\mathbf{v} = \hat{\mathbf{e}}_1 + \hat{\mathbf{e}}_2 + \hat{\mathbf{e}}_3$.

Solution
Here the transformation matrix is

$$[a_{ij}] = \begin{bmatrix} 1/\sqrt{2} & 0 & -1/\sqrt{2} \\ 0 & 1 & 0 \\ 1/\sqrt{2} & 0 & 1/\sqrt{2} \end{bmatrix}$$

and from Eq 2.5-9 in matrix form

$$\begin{bmatrix} v_1' \\ v_2' \\ v_3' \end{bmatrix} = \begin{bmatrix} 1/\sqrt{2} & 0 & -1/\sqrt{2} \\ 0 & 1 & 0 \\ 1/\sqrt{2} & 0 & 1/\sqrt{2} \end{bmatrix} \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix} = \begin{bmatrix} 0 \\ 1 \\ \sqrt{2} \end{bmatrix}$$

Example 2.5-2
Determine the primed components of the tensor

$$[T_{ij}] = \begin{bmatrix} 2 & 6 & 4 \\ 0 & 8 & 0 \\ 4 & 2 & 0 \end{bmatrix}$$

under the rotation of axes described in Example 2.5-1.