

Step-1

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$$A = eye(3) = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$

Given that

$$V = (3; 5)^t = (3 \ 4 \ 5)^t = \begin{pmatrix} 3 \\ 4 \\ 5 \end{pmatrix}$$

And

Step-2

$$A * V = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix} \begin{pmatrix} 3 \\ 4 \\ 5 \end{pmatrix} = \begin{pmatrix} 3 \\ 4 \\ 5 \end{pmatrix} = (3 \ 4 \ 5)^t$$

Since using matrices multiplication or using MATLAB commands

Step-3

$$\begin{aligned} V^t * V &= (3 \ 4 \ 5) \begin{pmatrix} 3 \\ 4 \\ 5 \end{pmatrix} \\ &= (3*3 + 4*4 + 5*5) \\ &= (50) \end{aligned}$$

Since using matrices multiplication or using MATLAB commands

Step-4

In MATLAB commands if we ask for $V^* A$ it shows error.