

## Attendance Quiz 19

Name: \_\_\_\_\_ Date : \_\_\_\_\_

1. Orthogonally diagonalize the matrix  $A = \begin{bmatrix} 7 & -4 & 4 \\ -4 & 5 & 0 \\ 4 & 0 & 9 \end{bmatrix}$  and giving orthogonal matrix

$P$  and a diagonal matrix  $D$ . (To save you time, the eigenvalues of  $A$  are 13, 7, and 1).