The matrix

$$C = \begin{bmatrix} 3 & 0 & 0 \\ 16 & -5 & -8 \\ -8 & 4 & 7 \end{bmatrix}$$

has two distinct eigenvalues with $\lambda_1 < \lambda_2$.

The smaller eigenvalue $\lambda_1 =$	has multiplicity	and the dimension of the
corresponding eigenspace is		
The larger eigenvalue $\lambda_2 =$	has multiplicity	and the dimension of the
corresponding eigenspace is		

Is the matrix C diagonalizable?

?

The matrix

$$C = \begin{bmatrix} 3 & 0 & 0 \\ 16 & -5 & -8 \\ -8 & 4 & 7 \end{bmatrix}$$

has two distinct eigenvalues with $\lambda_1 < \lambda_2$.

The smaller eigenvalue $\lambda_1 = -1$	has multiplicity	1	and the dimension of the
corresponding eigenspace is 1.	_		
The larger eigenvalue $\lambda_2 = 3$	has multiplicity	2	and the dimension of the
corresponding eigenspace is 2 .			

Is the matrix C diagonalizable?

diagonalizable