19. *a. Construct a 3×3 matrix A with $\mathbf{C}(A) \subset \mathbf{N}(A)$.
    b. Construct a 3×3 matrix A with $\mathbf{N}(A) \subset \mathbf{C}(A)$.
    c. Do you think there can be a 3×3 matrix A with $\mathbf{N}(A) = \mathbf{C}(A)$? Why or why not?
    d. Construct a 4×4 matrix A with $\mathbf{C}(A) = \mathbf{N}(A)$.