1. If the coefficient matrix A in a homogeneous system of 16 equations in 20 unknowns is known to have rank 10, how many parameters are there in the general solution?

$P = 20 - 10$
$= 10$

A. none
B. 4
C. 6
D. 10
E. 16
F. 20

2. If $A = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 1 & 1 \\ 0 & 1 & 1 \end{bmatrix}$, and B is a $3 \times n$ matrix then the third row of the matrix AB is

$\begin{bmatrix} 1 & 0 & 0 \\ 1 & 1 & 1 \\ 0 & 1 & 1 \end{bmatrix} \begin{bmatrix} r_1 \\ r_2 \\ r_3 \end{bmatrix}$ $r_2 + r_3$

A. the same as the second row of A.
B. the same as the first row of B.
C. the same as the second row of B.
D. the sum of the first and the second rows of B.
E. the sum of the first and the third rows of B.
F. the sum of the second and third rows of B.