Quiz #7

Please print your name:

Problem 1. Find a basis for $\mathrm{col}(A)$, and determine the dimension of $\mathrm{col}(A)$. No computations necessary!

(a) $A = \begin{bmatrix} 1 & 1 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$ basis: dim =

(b) $A = \begin{bmatrix} 1 & 1 & -1 \\ 0 & 2 & 0 \\ 0 & 0 & 0 \end{bmatrix}$ basis: dim =

(c) $A = \begin{bmatrix} 1 & 1 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 4 \end{bmatrix}$ basis: dim =

(d) $A = \begin{bmatrix} 1 & 1 & 0 \\ 0 & 0 & 0 \\ 2 & 4 & 0 \end{bmatrix}$ basis: dim =

Problem 2. Find a basis for $\mathrm{col}(A)$ with $A = \begin{bmatrix} 1 & -1 & 1 & 2 \\ 2 & 2 & 6 & 5 \\ 3 & 1 & 7 & 7 \end{bmatrix}$. (Make sure to show your work!)