Name: _____ ID #:_____

Fill in all the gaps

Q1) For $A = \begin{pmatrix} 1 & 3 \\ 2 & 0 \end{pmatrix}$ and $B = \begin{pmatrix} 3 & 1 & 1 \\ 0 & -1 & 0 \end{pmatrix}$.

a) Compute the product AB = $\begin{pmatrix} & & \\ & & \\ & & \end{pmatrix}$

b) Explain why the product BA does not exist

Q2) AB = $\begin{pmatrix} 1 & -3 & -18 & 9 \\ -15 & 3 & -4 & 2 \\ 1 & 8 & 17 & \\ 5 & -12 & -20 & 2 \\ 3 & & 6 & 2 \\ 8 & -1 & -25 & 13 \end{pmatrix}$ where

$A = \begin{pmatrix} -1 & -1 & 4 & 2 & 4 \\ -2 & 0 & 4 & 2 & -1 \\ 0 & -2 & -3 & -3 & -2 \\ -1 & 1 & -1 & 2 & 3 \\ 0 & 0 & -2 & -2 & -1 \\ -3 & 3 & -3 & -1 & 2 \end{pmatrix}$ and $B = \begin{pmatrix} 2 & -1 & 3 & -3 \\ 1 & 0 & -3 & 0 \\ -1 & 2 & 0 & 1 \\ -2 & -4 & -1 & -3 \\ 3 & -1 & -4 & 2 \end{pmatrix}$