

Use the matrices below to do all the problems within this assignment.

$$A = \begin{bmatrix} -2 & 3 \\ 4 & -5 \end{bmatrix}$$

$$B = \begin{bmatrix} 7 & -2 & 0 \\ 1 & 3 & -2 \end{bmatrix}$$

$$C = \begin{bmatrix} -3 & 2 \\ 0 & 1 \\ -5 & 4 \end{bmatrix}$$

$$D = \begin{bmatrix} 6 & 2 \\ -7 & 8 \\ 10 & 1 \end{bmatrix}$$

$$E = \begin{bmatrix} 3 & -3 \\ -4 & 6 \end{bmatrix}$$

$$F = \begin{bmatrix} -12 & 4 & 1 \\ 0 & -2 & 8 \end{bmatrix}$$

- 1) How many elements does matrix D have?
- 2) How many columns does matrix F have?
- 3) What are the dimensions of matrix C?
- 4) For matrix D, what element is in the second column and first row?
- 5) Construct a matrix that has four columns and three rows. Make certain that the only zero sits in the second column and third row.
- 6) Make a matrix that contains this information: "Jim sold 14 hotdogs and 7 fries on Monday, 18 fries and 3 hotdogs on Thursday, and 12 hotdogs and 4 fries on Saturday."
- 7) Build a matrix that contains this information: "The McDonald's at Harlem/Cermak Road sold this in January: 1200 Big Macs, 8000 sodas, and 200 shakes. For February, it sold 250 shakes 1500 Big Macs, and 7800 sodas. For March, it sold 9200 sodas, 5005 Big Macs, and 300 shakes."
- 8) For the matrix you created for problem #7, what element is in your second column and third row?
- 9) If you were to look at all the assignments and compared responses for problem #8, would it be likely that all the responses be the same? Explain your answer.