Problem 8.6

Develop, debug, and test your own M-file to multiply two matrices—that is, [X] = [Y][Z], where [Y] is m by n and [Z] is n by p. Employ for . . . end loops to implement the multiplication and include error traps to flag bad cases. Test the program using the matrices from Prob. 8.4.

Problem 8.4

Three matrices are defined as

$$[A] = \begin{bmatrix} 6 & -1 \\ 12 & 8 \\ -5 & 4 \end{bmatrix} [B] = \begin{bmatrix} 4 & 0 \\ 0.5 & 2 \end{bmatrix} [C] = \begin{bmatrix} 2 & -2 \\ 3 & 1 \end{bmatrix}$$

- (a) Perform all possible multiplications that can be computed between pairs of these matrices.
- **(b)** Justify why the remaining pairs cannot be multiplied.
- (c) Use the results of (a) to illustrate why the order of multiplication is important.

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