2. **Vector Operations**
Solve the following examples on the Scilab Console as soon as the relevant topic is explained in the tutorial.

1. Define two vectors A,B with 1,5,8,19 and 19,8,5,1 elements respectively. 
   Calculate A*B-B'*A
   Calculate A*A'+B*B'

2. In Scilab, enter the following Matrices:
\[ A = \begin{bmatrix} 1 & 1/2 \\ 1/3 & 1/4 \\ 1/5 & 1/6 \end{bmatrix} \]
\[ B = \begin{bmatrix} 5 \\ 2 \end{bmatrix}, \quad C = \begin{bmatrix} 4 & 5/4 & 9/4 \\ 1 & 2 & 3 \end{bmatrix} \]

Using Scilab commands, compute each of the following, if possible and explain the errors, if any.

3. \( A \times C - C \times A \)
4. \( 4.2 \times C - 6 \times A \)
5. \((2 \times C - 6 \times A') \times B' \)
6. \((2 \times C - 6 \times A') \times C' \)