MATLAB-1

1) Let $A = \begin{bmatrix} 2 & 0 & 1 & 1 \\ 0 & 3 & 0 & 0 \\ 0 & 0 & 4 & 0 \\ 2 & 1 & 0 & 5 \end{bmatrix}$

   a) Find det(A)

   b) Find B= A^{-1}

   c) Find the inner product between fourth row of B and third column of B

   d) Find all eigenvalues of A then find the product of these numbers

2) Compute :

$$1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+1}}}}}}}}}},$$