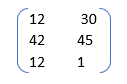
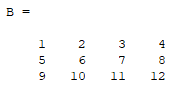
1. **3 Vs of Big Data**
   * Volume
     1. Massive and keeps increasing volumes of data
   * Verity
     1. All type of different data as part of the decision-making and insight process
   * Velocity
     1. How quick data is arriving, stored and retrieved by users
2. **Data analysis** 
   * is a process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision making.
3. **R language:**
   * Case sensitive
4. **Octave:**
   * GNU Octave is a high-level language
   * Octave is great for:
     1. Data Analytics
     2. Machine Learning
     3. Statistical Computations
     4. Numerical Computations
     5. Advanced Graphing for data visualization and manipulation
   * Octave is written in C++
   * Can run MATLAB file also
   * Octave commands:
     1. >>clc 🡪 clear command window
     2. natural and base 10 logarithms 🡪 log(), log10()
     3. square root 🡪sqrt()
     4. built in functions:
        1. sin(pi/2)
        2. cos()
        3. tan()
        4. acos() 🡪 sin inverse
        5. asin()
        6. round(2.4)
        7. floor(x) 🡪 return the largest integer not greater than x
        8. ceil(x) 🡪 Return the lowest integer not less than x
   * variables can consist with letters and numbers, but should start with letter
   * complex numbers:
     1. a=0+1\*1i
     2. b=1+2\*1i
   * Matrix
     1. A=[12 30;42 45;12 1]



* + 1. B= [1:4;5:8;9:12]



* + 1. eye(3) 🡪 Identity matrix
    2. inv(A) 🡪 Inverse of matrix