Instructions

1. Create a matrix with 2 rows and 3 columns and fill it with random numerical data.

{2,3,4

2,6,7}

2. Identify the data type of the $matrix$ and calculate the mean, mode and median of the data.

   Data type: numerical

   Mean: 4

   Mode:2

   Median: 3

3. Perform basic matrix operations (addition, subtraction, transpose and scalar multiplication) on the matrix.

   Transpose:

   {2,2

   3,6

   4,7}

   Scalar (2):

   {4,6,8

   4,12,14}

4. Research and find a real-world application of matrices in data analysis and explain how it is used.

   Matrices are used in a wide variety of applications in real life. They are used in physics for electrical circuits and quantum mechanics. Stochastic matrices are used in page rank algorithms like Google search. Matrices are also used for encryption in computer applications and coding messages.