**Shubhan Singh**

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**Scilab no.9 : Eigen-vectors**

**Program No.1** :- Write a scilab code to find Eigen values and eigen vectors of matrix A

A=

**Code :-**

clc;

A = [2 -1 1; 1 2 -1; 1 -1 2];

[c, d] = spec(A);

printf("The Eigen-Values of matrix A are : ");

disp(spec(A));

printf("The Eigen-Vectors of matrix A are : ");

disp(c);

**Output :-**

**A screenshot of a computer

Description automatically generated**

**Program No.2** :- Write a scilab code to find Eigen values and eigen vectors of matrix A

A=

**Code :-**

clc;

A = [8 -8 -2; 4 -3 -2; 3 -4 1];

[c, d] = spec(A);

printf("The Eigen-Values of matrix A are : ");

disp(spec(A));

printf("The Eigen-Vectors of matrix A are : ");

disp(c);

**Output :-**

**A screenshot of a computer

Description automatically generated**

**Program No.3** :- Write a scilab code to find Eigen values and eigen vectors of matrix A

A=

**Code :-**

clc;

A = [2 2 1; 1 3 1; 1 2 2];

[c, d] = spec(A);

printf("The Eigen-Values of matrix A are : ");

disp(spec(A));

printf("The Eigen-Vectors of matrix A are : ");

disp(c);

**Output :-**

**A screenshot of a computer

Description automatically generated**

**Program No.4** :- Write a scilab code to find Eigen values and eigen vectors of matrix A

A=

**Code :-**

clc;

A = [4 -2; 1 1];

[c, d] = spec(A);

printf("The Eigen-Values of matrix A are : ");

disp(spec(A));

printf("The Eigen-Vectors of matrix A are : ");

disp(c);

**Output :-**

**A screenshot of a computer

Description automatically generated**

**Program No.5** :- Write a scilab code to find Eigen value of matrix A

A=

**Code :-**

clc;

A = [2 1 1;2 3 2;3 3 4];

[c, d] = spec(A);

printf("The Eigen-Values of matrix A are : ");

disp(spec(A));

printf("The Eigen-Vectors of matrix A are : ");

disp(c);

**Output :-**

**A screenshot of a computer

Description automatically generated**

**Program No.6** :- Write a scilab code to find Eigen value of matrix A

A=

**Code :-**

clc;

A = [8 -6 2;-6 7 -4;2 -4 3];

[c, d] = spec(A);

printf("The Eigen-Values of matrix A are : ");

disp(spec(A));

printf("The Eigen-Vectors of matrix A are : ");

disp(c);

**Output :-**

**A screenshot of a computer

Description automatically generated**