1. Is the (3, 2)-cofactor of the matrix ?

2. Suppose A is a 3x3 matrix with determinant 2. Find det(-5A-1).

3. What is the determinant of the matrix ?

4. What is the characteristic polynomial of the matrix

5. Find the eigenvalues of .

6. For what values of *a* is the set of vectors

S={(4,-2,a),(1,-2,5),(8,1,3)} linearly independent?

7. Which of the following are subspaces of R3?

(i) {(1,b-a, a+2b)|a,b∈R}

(ii) {(a+b,a+3b,2a-b)|a,b∈R}

8. Let . Find.

9. Let and .

Determine the value of m such that .

10. Let *u,v*∈R3 such that |*u|=5, |v|* =3 and *u.v=-4*. Find |3*u-2v*|.