1. Find all points of intersection of the plane x+9y-7z=2 and the line

(x,y,z)=(3,-2,1)+t(4,1,1)

2. Find the equation of the plane through P(1,-2,1), Q(9,0,1) and R(4,1,2)

3. If u=(2,-x,3x) and v=(x,1,-2) are at an angle of , then x is…

4. The distance between u(1,9,3) and v(3,-2,1) is

5. Find a, b and c so that the system has the solution .

6. Compute the rank of the matrix

7. Determine the values of k so that the system of equations

has a unique solution.

8. Determine the values of k such that the system of linear equations is consistent

9. Let .

If is the augmented matrix of a system of linear equations. Solve the system.

10. Find (v - 3w)•(v + 2w) if and v•w = -5.