Assignment No1 Solution

**MTH 501**

For Any Solution Just Comment on Website

**Q.No.1: Let be the vectors in where**

**Determine whether the set S spans .**

**SOLUTION**

Let

So we can write

**Yes, these span**

**QUESTION NO.2**

**Q.No.2: Given the system of linear equations**

**For which value of “a” the system have one solution, infinite solution and no solution.**

**SOLUTION**

Now

Suppose

According to condition

A system has a unique solution when it is consistent and the number of variables is equal to the number of nonzero rows.

,

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Now by putting value of in Eq.(1), we get

It means a system has infinitely many solutions when it is consistent.

Now by putting value of in Eq.(1), we get

A system has no solution if the equations are inconsistent.