**MAT 204 Assignment**

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**Question 1**

1. A **linear combination** of two or more **vectors** is the **vector** obtained by adding two or more **vectors** (with different directions) which are multiplied by scalar values.
2. A Sequence of vector is said to linearly independent if there exist scalars not all zero , it can also be defined by that a sequence of vectors is linearly dependent if and only if some vector in that sequence can be written as a linear combination of the other vectors

**QUESTION 2**

SPANNING SET OF R

U= (1,0,1), V= (2,1,3), W= (1,1, -4).

+

1

2

3

Using equation 2

4

Put equation 4 into equation 1 and equation 3

5

6

Compare 5 and 6

+

Put into equation 2

) = b

=

Put

QUESTION 3

1. Commutativity of vector addition

1. Associativity of vector addition

1. Identity element of addition

1. Distributivity of scalar multiplication with respect to vector addition