**Activity 8.3.3 A Vector Is a Matrix?**

Refer back at activity 8.3.1

In the second matrix multiplication example, the two matrices were:

and

1. You determined the meaning of the rows and columns of the product matrix *AB* was

The product matrix was:

Suppose we only wished to find the amount of CO2 reduction due to the items collected in the first week at each of the collection sites. Review the three requirements to be able to multiply two matrices.

1. Could we multiply matrix *A* by the following matrix (which is just the second column of matrix *B*)?
2. Use your calculator and see if a matrix can have just one column and then, if possible perform the multiplication.
3. What is the meaning of the result?
4. Where have you seen this notation before?
5. Could matrix *C* be considered a vector?
6. If a vector is just a matrix with one column, could we think of the columns of a matrix as vectors?
7. In that case, what would the columns of matrix *A* represent when thought of as vectors?
8. What would the columns of matrix *B* represent when thought of as vectors?