Generate test and sample matrices

Set split variable equal to augmentation of whole data set, instead of "newData" Will have to import centroids, ref before running. Also multiply raw data by A before running kmeans.

```
split = newData;
sample = zeros(180,130);                                                    %
 Initialize matrices for two data sets; one helps identify centroids, other is
 clustered
test = zeros(45,130);                                                       % using
 those.

i = 1;
j = 1;
k = 1;
while i <= 225
    if rem(i,5) ~= 0                                                        % Every
 5th element is put into test data set, while the rest goes to sample set.
 Data is
        sample(j,:) = split(i,:);                                           %
 ordered by population, so taking data all throughout the whole is necessary
 for test diversity.
        j = j + 1;
    end
    if rem(i,5) == 0
        test(k,:) = split(i,:);
        k = k + 1;
    end
    i = i + 1;
end
```

```
Unrecognized function or variable 'newData'.

Error in cluster_covid_data (line 8)
split = newData;
```

Test function on 45 county test group

```
[IDXresult, C1] = kmeans(test,9,'start',centroids);                         %
 Generates the kmeans results, including cluster assignment for each index

i = 1;
j = 1;
total = 0;
while i <= 45
    if IDXresult(i,1) == ref(1,j)                                           % Loop
 that checks results of test kmeans against ref array, counting the number of
 successes
        total = total + 1;
    end
    if rem(i,5) == 0
        j = j + 1;
```

```
    end
    i = i + 1;
end
```

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