

## CS1173 HW3: Practice sheet

Name: \_\_\_\_\_

**Note:** You can always type these expressions into MATLAB to get the values. You should do this to check your answers. However, if you don't try to write these answers by hand first, you will completely negate the value of the review sheet.

**1)** In the following, assume that the MATLAB variable  $x$  is defined by:  $x = [1 \ -2; \ 3 \ 2; \ 0 \ -3; \ 4 \ 0]$ ; Find the values of each of the following:

a) tabular form of  $x$

b)  $x'$

c)  $x(2, 1)$

d)  $x(:)$

e)  $\text{sum}(x)$

f)  $x(3)$

g)  $x(:, 1)$

h)  $x(2, :)$

i)  $\text{max}(x, [], 2)$

j)  $\text{reshape}(x, 2, 4)$

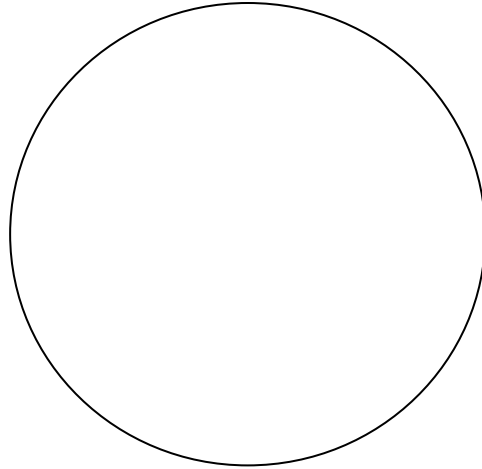
**2) Write MATLAB code to do the following:**

a) Define a MATLAB variable `years` that contains the consecutive years from 1980 to 2000.

b) `TB` is a 3-column array containing years in the first column, number of TB cases in the second column and infection rates per 100,000 people in the third column. Write a MATLAB statement to calculate the average number of TB cases.

Day	Beach 1 count	Beach 2 count
1	80	20
5	30	50
6	10	20
8	20	40
10	50	30
15	10	20
20	40	10

3) Draw a pie chart showing the percentage of total bacteria that came from each beach. Be sure to label the chart appropriately.



4) Draw a bar stacked chart of the daily counts at the two beaches versus day. Be sure to include appropriate labels, ticks and title.

